

South East Technological University

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Fleet Management Project

Technical Manual

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Academic Year: 2022/2023

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<b>main.dart</b>	<b>2</b>
<b>login_conn.dart</b>	<b>3</b>
<b>login.dart</b>	<b>4</b>
<b>home.dart</b>	<b>8</b>
<b>garage_order.dart</b>	<b>11</b>
<b>garage_job.dart</b>	<b>18</b>
<b>fleet_reg_driver.dart</b>	<b>22</b>
<b>fleet_job.dart</b>	<b>29</b>
<b>driver_view.dart</b>	<b>33</b>
<b>driver_job.dart</b>	<b>36</b>
<b>driver_home.dart</b>	<b>42</b>
<b>admin_reg_garage.dart</b>	<b>44</b>
<b>admin_reg_fleet.dart</b>	<b>51</b>
<b>admin_order.dart</b>	<b>57</b>
<b>const_color.dart</b>	<b>62</b>

# main.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Default starting page. Launches App.
 */

import 'package:firebase_core/firebase_core.dart';
import 'package:flutter/material.dart';
import 'firebase_options.dart';
import 'login_conn.dart';

// Initialise Flutter Framework
// Uses firebase library
void main() async {
  WidgetsFlutterBinding.ensureInitialized();
  await Firebase.initializeApp(
    options: DefaultFirebaseOptions.currentPlatform,
  );
  runApp(MyApp());
}

class MyApp extends StatelessWidget {
  const MyApp({Key? key}) : super(key: key);

  // This widget is the root of your application.
  @override
  Widget build(BuildContext context) {
    return const MaterialApp(
      debugShowCheckedModeBanner: false,
      home: LoginConn(),
    );
  }
}
```

# login\_conn.dart

```
/*
* Student Name: Rachel Doogue
* Student No: C00237335
* Lecturer: Dr Joseph Kehoe
* Licence: GNU General Public License, version 3
* Project Name: Daly Tyres Fleet Management App
* Description: Handles the authentication state of a user.
* Login() is the default page shown.
* If the user enters authentic login details Home() is shown.
*/

import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'home.dart';
import 'login.dart';

class LoginConn extends StatelessWidget {
  const LoginConn ({Key? key}) : super(key: key);

  @override
  Widget build(BuildContext context) {
    return Scaffold(
      body: StreamBuilder<User?>(
        // Uses Firebase_Auth library
        //Checking for changes in the user authentication status
        stream: FirebaseAuth.instance.authStateChanges(),
        builder: (context, snapshot) {
          // check if user exists
          if (snapshot.hasData) {
            return const Home();
          }
          // if not
          else {
            return const Login();
          }
        }
      )
    );
  }
}
```

# login.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Login screen shown to both phone and web users.
 */

import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';

class Login extends StatefulWidget {
  const Login({Key? key}) : super(key: key);

  @override
  State<Login> createState() => LoginState();
}

class LoginState extends State<Login> {
  @override
  Widget build(BuildContext context) {
    // Records current screen metrics
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    // Manage TextFormField content
    final emailController = TextEditingController();
    final passwordController = TextEditingController();

    // Firebase Authentication to login a user with the email and password entered in the
    // corresponding text fields.
    Future login() async {
      await FirebaseAuth.instance.signInWithEmailAndPassword(
        email: emailController.text.trim(),
        password: passwordController.text.trim(),
      );
    }

    return Scaffold(
      backgroundColor: ConstColor.background,
      appBar: AppBar(
        title: const Center(
          child: Text('Daly Tyres Fleet Management',
```

```

    textAlign: TextAlign.center,
    style: TextStyle(
      fontSize: 50,
      color: ConstColor.background,
      fontWeight: FontWeight.bold,
    ),
  ),
),
backgroundColor: ConstColor.contrast,
),
body: SizedBox(
  height: screenHeight,
  width: screenWidth,
  child: Row(
    crossAxisAlignment: CrossAxisAlignment.start,
    mainAxisAlignment: MainAxisAlignment.start,
    children: [
      // Switch to SizedBox() if screenWidth is less than 600 px
      screenWidth < 600 ? SizedBox() : Expanded(
        child: Container(
          height: screenHeight,
          color: ConstColor.background,
        )
      ),
      Expanded(
        child: Container(
          height: screenHeight,
          color: ConstColor.background,
          child: SingleChildScrollView(
            padding: const EdgeInsets.only(bottom: 40.0),
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              mainAxisAlignment: MainAxisAlignment.start,
              children: [
                SizedBox(
                  height: screenHeight * 0.2,
                ),
                const Text('Login',
                  textAlign: TextAlign.center,
                  style: TextStyle(
                    fontSize: 40,
                    color: ConstColor.contrast,
                    fontWeight: FontWeight.bold,
                  ),
                ),
                const Text('Welcome to the login page for Daly Tyres. Please enter your
details below.',
                  style: TextStyle(

```

```

        fontSize: 20,
        color: ConstColor.faint,
        fontWeight: FontWeight.normal,
    ),
),
 SizedBox(
    height: screenHeight * 0.02,
),
const Text('Email',
    style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
    ),
),
),
Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
        controller: emailController,
        decoration: const InputDecoration(
            border: InputBorder.none,
            hintText: 'Enter Email Here',
        ),
    ),
),
),
 SizedBox(
    height: screenHeight * 0.02,
),
const Text('Password',
    style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
    ),
),
),
Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(

```

```

        controller: passwordController,
        obscureText: true,
        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Email Here',
        ),
      ),
    ),
    SizedBox(
      height: screenHeight * 0.05,
    ),

    GestureDetector(
      onTap: login,
      child: Container(
        height: 50.0,
        width: screenWidth * 0.2,
        decoration: BoxDecoration(
          color: ConstColor.contrast,
          borderRadius: BorderRadius.circular(16),
        ),
      ),
      child: const Center(
        child: Text('Login',
          style: TextStyle(
            fontSize: 15,
            color: ConstColor.background,
            fontWeight: FontWeight.normal,
          ),
        ),
      ),
    ),
  ],
),
),
screenWidth < 600 ? SizedBox() : Expanded(
  child: Container(
    height: screenHeight,
    color: ConstColor.background,
  )
),
],
)
);
}}

```



# home.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Home screen showing each type of user.
 * Click on a button to enter a users screen set.
 */

import 'admin_reg_fleet.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';
import 'garage_job.dart';
import 'login.dart';
import 'driver_home.dart';
import 'fleet_reg_driver.dart';

class Home extends StatefulWidget {
  const Home({super.key});

  @override
  State<Home> createState() => HomeState();
}

class HomeState extends State<Home> {

  // firebase_auth signs out the user and goes to the login screen
  Future signOut() async {
    await FirebaseAuth.instance.signOut();
    Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
  }

  @override
  Widget build(BuildContext context) {
    //keep it up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    return Scaffold(
      backgroundColor: ConstColor.background,
      appBar: AppBar(
        title: const Center(
          child: Text('Daly Tyres Fleet Management',
```

```

        textAlign: TextAlign.center,
        style: TextStyle(
          fontSize: 50,
          color: ConstColor.background,
          fontWeight: FontWeight.bold,
        ),
      ),
    ),
    backgroundColor: ConstColor.contrast,
  ),
  body: SafeArea(
    child: Center(
      child: Column(
        children: [
          SizedBox(
            height: screenHeight * 0.05,
          ),

          ElevatedButton(
            onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegFleet()));},
            style: ElevatedButton.styleFrom(
              backgroundColor: ConstColor.contrast,
              foregroundColor: ConstColor.background,
              padding: const EdgeInsets.all(16.0),
              textStyle: const TextStyle(fontSize: 20),
            ),
            child: const Text('Admin')
          ),
          SizedBox(
            height: screenHeight * 0.02,
          ),

          ElevatedButton(
            onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>DriverHome()));},
            style: ElevatedButton.styleFrom(
              backgroundColor: ConstColor.contrast,
              foregroundColor: ConstColor.background,
              padding: const EdgeInsets.all(16.0),
              textStyle: const TextStyle(fontSize: 20),
            ),
            child: const Text('Driver')
          ),
          SizedBox(
            height: screenHeight * 0.02,
          ),

```

```

        ElevatedButton(
          onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>FleetRegDriver()));},
          style: ElevatedButton.styleFrom(
            backgroundColor: ConstColor.contrast,
            foregroundColor: ConstColor.background,
            padding: const EdgeInsets.all(16.0),
            textStyle: const TextStyle(fontSize: 20),
          ),
          child: const Text('Fleet')
        ),
        SizedBox(
          height: screenHeight * 0.02,
        ),

        ElevatedButton(
          onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>GarageJob()));},
          style: ElevatedButton.styleFrom(
            backgroundColor: ConstColor.contrast,
            foregroundColor: ConstColor.background,
            padding: const EdgeInsets.all(16.0),
            textStyle: const TextStyle(fontSize: 20),
          ),
          child: const Text('Garage')
        ),
        SizedBox(
          height: screenHeight * 0.02,
        ),

        ElevatedButton(
          onPressed: () {signOut();},
          style: ElevatedButton.styleFrom(
            backgroundColor: ConstColor.contrast,
            foregroundColor: ConstColor.background,
            padding: const EdgeInsets.all(16.0),
            textStyle: const TextStyle(fontSize: 20),
          ),
          child: const Text('Logout')
        ),
      ],
    ),
  ),
);
}

```

## garage\_order.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Garage user can create a new Order for parts.
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';
import 'garage_job.dart';
import 'login.dart';

class GarageOrder extends StatefulWidget {
  const GarageOrder({Key? key}) : super(key: key);

  @override
  State<GarageOrder> createState() => GarageOrderState();
}

class GarageOrderState extends State<GarageOrder> {

  @override
  Widget build(BuildContext context) {
    //keep up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    // firebase_auth signs out the user and goes to the login screen
    Future signOut() async {
      await FirebaseAuth.instance.signOut();
      Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
    }

    //controllers for login process
    final manufacturerController = TextEditingController();
    final modelController = TextEditingController();
    final typeController = TextEditingController();
    final categoryController = TextEditingController();
    final quantityController = TextEditingController();

    List<Widget> nav = [
```

```

    ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>GarageJob()));},
    style: ElevatedButton.styleFrom(
    backgroundColor: ConstColor.contrast,
    foregroundColor: ConstColor.background,
    padding: const EdgeInsets.all(16.0),
    textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Job Management')
    ),
    ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>GarageOrder()));},
    style: ElevatedButton.styleFrom(
    backgroundColor: ConstColor.contrast,
    foregroundColor: ConstColor.background,
    padding: const EdgeInsets.all(16.0),
    textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Order Management')
    ),
    ElevatedButton(
    onPressed: () {signOut();},
    style: ElevatedButton.styleFrom(
    backgroundColor: ConstColor.contrast,
    foregroundColor: ConstColor.background,
    padding: const EdgeInsets.all(16.0),
    textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Logout')
    ),
  ],

return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: SizedBox(
    height: screenHeight,
    width: screenWidth,
    child: Row(
      crossAxisAlignment: CrossAxisAlignment.start,
      mainAxisAlignment: MainAxisAlignment.start,
      children: [
        Expanded(
          child: Container(

```

```

        color: ConstColor.background,
    ),
),
Expanded(
  child: Container(
    height: screenHeight,
    color: ConstColor.background,
    child: SingleChildScrollView(
      padding: const EdgeInsets.only(bottom: 40.0),
      child: Column(
        crossAxisAlignment: CrossAxisAlignment.start,
        mainAxisAlignment: MainAxisAlignment.start,
        children: [
          SizedBox(
            height: screenHeight * 0.2,
          ),
          const Text('Order Request',
            style: TextStyle(
              fontSize: 40,
              color: ConstColor.contrast,
              fontWeight: FontWeight.bold,
            ),
          ),
          const Text('Hello Daly Tyres Garage. Please enter desired part below.
\nExpect a response through invoice.',
            style: TextStyle(
              fontSize: 20,
              color: ConstColor.faint,
              fontWeight: FontWeight.normal,
            ),
          ),
          SizedBox(
            height: screenHeight * 0.02,
          ),
          const Text('Manufacturer',
            style: TextStyle(
              fontSize: 15,
              color: ConstColor.text,
              fontWeight: FontWeight.normal,
            ),
          ),
          Container(
            height: 50.0,
            width: screenWidth,
            decoration: BoxDecoration(
              border: Border.all(color: ConstColor.contrast),
              borderRadius: BorderRadius.circular(16),
            ),
          ),

```



```

        borderRadius: BorderRadius.circular(16),
      ),
      child: TextFormField(
        controller: typeController,
        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Part Type Here',
        ),
      ),
    ),
    SizedBox(
      height: screenHeight * 0.02,
    ),
    const Text('Category',
      style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
      ),
    ),
  ),
  Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
      border: Border.all(color: ConstColor.contrast),
      borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
      controller: categoryController,
      decoration: const InputDecoration(
        border: InputBorder.none,
        hintText: 'Enter Category Here',
      ),
    ),
  ),
  SizedBox(
    height: screenHeight * 0.02,
  ),
  const Text('Quantity',
    style: TextStyle(
      fontSize: 15,
      color: ConstColor.text,
      fontWeight: FontWeight.normal,
    ),
  ),
  ),
  Container(
    height: 50.0,
    width: screenWidth,

```





```
        ),
      ),
    ),
  ),
  1,
),
),
)
),
Expanded(
  child: Container(
    color: ConstColor.background,
  ),
),
1,
)
)
);
}
}
```

# garage\_job.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Garage user can see job requests.
 * Accept or Reject
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'garage_order.dart';
import 'login.dart';
import 'const_color.dart';

class GetJob extends StatelessWidget {

  /*
  * Lines 28 - 38
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to name of the collection and and to the contents of the Text widget
  */
  late final String documentId;

  GetJob({required this.documentId});

  @override
  //Uses FireStore library to access collections and uses documentId to get and read every
  document indie a collection
  Widget build(BuildContext context) {
    return FutureBuilder<DocumentSnapshot>(
      future: FirebaseFirestore.instance.collection('jobs').doc(documentId).get(),
      builder: ((context, snapshot) {
        Map<String,dynamic> data = snapshot.data!.data() as Map<String,dynamic>;
        return Text("Registration : ${data['registration']} \nSize : ${data['size']} \nLocation :
        ${data['location']} \nGarage : ${data['garage']} \nComment : ${data['comment']} \nFleet Status
        : ${data['fleetStatus']} \nGarage Status : ${data['garageStatus']}");
      }
    ),
  );
}
```

```
}  
}
```

```
class GarageJob extends StatefulWidget {  
  const GarageJob({Key? key}) : super(key: key);
```

```
  @override  
  State<GarageJob> createState() => GarageJobState();  
}
```

```
class GarageJobState extends State<GarageJob> {
```

```
  /*  
  * Lines 63 - 78  
  * Code produced by Mitch Koko  
  * www.youtube.com. (Mitch Koko).  
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.  
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.  
  * Changes made to names of collection and search query order  
  */
```

```
  late List<String> docDoc;  
  //Initialise a new empty list and calls method to get document information
```

```
  @override  
  void initState() {  
    super.initState();  
    docDoc = [];  
    getDoc();  
  }
```

```
  //Cloud Firestore library
```

```
  Future<void> getDoc() async {  
    await FirebaseFirestore.instance.collection('jobs').orderBy('created', descending:  
true).get().then(  
      (snapshot) => snapshot.docs.forEach((element) {  
        docDoc.add(element.reference.id);  
      }  
    ),  
  );  
  setState(() {});  
}
```

```
  //Cloud Firestore library
```

```
  Future<void> UpdateStatus(String docId, String status, dynamic value) async {  
    await FirebaseFirestore.instance.collection('jobs').doc(docId).update({status: value});  
    setState(() {});  
  }
```

```
  @override
```

```
  Widget build(BuildContext context) {  
    //keep up to date with the current screen metrics as they change  
    double screenHeight = MediaQuery.of(context).size.height;
```

```

double screenWidth = MediaQuery.of(context).size.width;

// firebase_auth signs out the user and goes to the login screen
Future signOut() async {
  await FirebaseAuth.instance.signOut();
  Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
}

List<Widget> nav = [
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>GarageJob()));},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Job Management')
  ),
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>GarageOrder()));},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Order Management')
  ),
  ElevatedButton(
    onPressed: () {signOut();},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Logout')
  ),
];

```

```

/*
* Lines 144 - 152
* Code produced by Mitch Koko
* www.youtube.com. (Mitch Koko).
* (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
* [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
* Changes made to name of array

```

```

*/
return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: Center(
    child: ListView.builder(
      itemCount: docDoc.length,
      itemBuilder: (context, index) {
        final docId = docDoc[index];
        return Padding(
          padding: const EdgeInsets.all(8.0),
          child: ListTile(
            title: GetJob(documentId: docId),
            tileColor: ConstColor.faint,
            trailing: Row(
              mainAxisAlignment: MainAxisAlignment.min,
              children: <Widget>[
                ElevatedButton(
                  style: ElevatedButton.styleFrom(
                    backgroundColor: ConstColor.add,
                    foregroundColor: ConstColor.background,
                    textStyle: const TextStyle(fontSize: 20),
                  ),
                  child: const Text('Accept'),
                  onPressed: () => UpdateStatus(docId, 'garageStatus', 'Accepted'),
                ),
                ElevatedButton(
                  style: ElevatedButton.styleFrom(
                    backgroundColor: ConstColor.delete,
                    foregroundColor: ConstColor.background,
                    textStyle: const TextStyle(fontSize: 20),
                  ),
                  child: const Text('Reject'),
                  onPressed: () => UpdateStatus(docId, 'garageStatus', 'Rejected'),
                ),
              ],
            ),
          ),
        );
      },
    ),
  );
}
);
};

```

# fleet\_reg\_driver.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Fleet user can create a new Account for a Driver.
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';
import 'fleet_job.dart';
import 'login.dart';

class FleetRegDriver extends StatefulWidget {
  const FleetRegDriver({Key? key}) : super(key: key);

  @override
  State<FleetRegDriver> createState() => FleetRegDriverState();
}

class FleetRegDriverState extends State<FleetRegDriver> {

  @override
  Widget build(BuildContext context) {
    //keep up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    // firebase_auth signs out the user and goes to the login screen
    Future signOut() async {
      await FirebaseAuth.instance.signOut();
      Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
    }

    //controllers for login process
    final emailController = TextEditingController();
    final passwordController = TextEditingController();
    final nameController = TextEditingController();
    final licenceController = TextEditingController();

    // Insert new record for driver in users collection
    Future addDetails(String name, String email, String licence) async {
```

```

await FirebaseFirestore.instance.collection('users').add({
  'name': name,
  'licence': licence,
  'email': email,
  'role': 'Driver',
});
}

// Uses Firebase_Auth library to construct query and creates a new user with email and
password credentials
Future register() async {
  await FirebaseAuth.instance.createUserWithEmailAndPassword(
    email: emailController.text.trim(),
    password: passwordController.text.trim(),
  );

  // Controllers from form
  addDetails(
    nameController.text.trim(),
    licenceController.text.trim(),
    emailController.text.trim()
  );
  // clears TextFormFields once form is submitted
  emailController.clear();
  passwordController.clear();
  nameController.clear();
  licenceController.clear();
}

List<Widget> nav = [
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>FleetRegDriver()));},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Fleet Management')
  ),
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>FleetJob()));},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
  ),

```



```

        child: const Text('Job Management')
      ),
      ElevatedButton(
        onPressed: () {signOut();},
        style: ElevatedButton.styleFrom(
          backgroundColor: ConstColor.contrast,
          foregroundColor: ConstColor.background,
          padding: const EdgeInsets.all(16.0),
          textStyle: const TextStyle(fontSize: 20),
        ),
        child: const Text('Logout')
      ),
    ],
  );

return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: SizedBox(
    height: screenHeight,
    width: screenWidth,
    child: Row(
      crossAxisAlignment: CrossAxisAlignment.start,
      mainAxisAlignment: MainAxisAlignment.start,
      children: [
        Expanded(
          child: Container(
            color: ConstColor.background,
          ),
        ),
        Expanded(
          child: Container(
            height: screenHeight,
            color: ConstColor.background,
            child: SingleChildScrollView(
              padding: const EdgeInsets.only(bottom: 40.0),
              child: Column(
                crossAxisAlignment: CrossAxisAlignment.start,
                mainAxisAlignment: MainAxisAlignment.start,
                children: [
                  SizedBox(
                    height: screenHeight * 0.2,
                  ),
                  const Text('Register Driver',
                    style: TextStyle(

```

```

        fontSize: 40,
        color: ConstColor.contrast,
        fontWeight: FontWeight.bold,
    ),
),
const Text('Hello Daly Tyres Fleet. Please enter new Driver details below.',
    style: TextStyle(
        fontSize: 20,
        color: ConstColor.faint,
        fontWeight: FontWeight.normal,
    ),
),
    SizedBox(
        height: screenHeight * 0.02,
    ),
const Text('Email',
    style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
    ),
),
Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
        controller: emailController,
        decoration: const InputDecoration(
            border: InputBorder.none,
            hintText: 'Enter Email Here',
        ),
    ),
),
    SizedBox(
        height: screenHeight * 0.02,
    ),
const Text('Password',
    style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
    ),
),
Container(

```



```

    ),
  ),
  Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
      border: Border.all(color: ConstColor.contrast),
      borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
      controller: licenceController,
      decoration: const InputDecoration(
        border: InputBorder.none,
        hintText: 'Enter Licence Here',
      ),
    ),
  ),
  SizedBox(
    height: screenHeight * 0.05,
  ),

  GestureDetector(
    onTap: register,
    child: Container(
      height: 50.0,
      width: screenWidth * 0.1,
      decoration: BoxDecoration(
        color: ConstColor.contrast,
        borderRadius: BorderRadius.circular(16),
      ),
      child: const Center(
        child: Text('Register',
          style: TextStyle(
            fontSize: 15,
            color: ConstColor.background,
            fontWeight: FontWeight.normal,
          ),
        ),
      ),
    ),
  ),
  ],
),
),
)
),
Expanded(
  child: Container(

```

```
        color: ConstColor.background,  
    ),  
),  
1,  
)  
)  
);  
}  
}
```

# fleet\_job.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Fleet user can see job requests.
 *             Accept or Reject
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'fleet_reg_driver.dart';
import 'login.dart';
import 'const_color.dart';

class GetJob extends StatelessWidget {

  /*
  * Lines 28 - 38
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to name of the collection and and to the contents of the Text widget
  */
  late final String documentId;

  GetJob({required this.documentId});

  @override
  //Uses FireStore library to access collections and uses documentId to get and read every
  //document indie a collection
  Widget build(BuildContext context) {
    return FutureBuilder<DocumentSnapshot>(
      future: FirebaseFirestore.instance.collection('jobs').doc(documentId).get(),
      builder: ((context, snapshot) {
        Map<String,dynamic> data = snapshot.data!.data() as Map<String,dynamic>;
        return Text('Registration : ${data['registration']} \nLicence : ${data['licence']} \nSize :
        ${data['size']} \nLocation : ${data['location']} \nGarage : ${data['garage']} \nComment :
        ${data['comment']} \nFleet Status : ${data['fleetStatus']} \nGarage Status :
        ${data['garageStatus']}');
      }
    ),
  )
}
```

```

);
}
}

```

```

class FleetJob extends StatefulWidget {
  const FleetJob({Key? key}) : super(key: key);

  @override
  State<FleetJob> createState() => FleetJobState();
}

```

```

class FleetJobState extends State<FleetJob> {

```

```

  /*
  * Lines 63 - 78
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to names of collection and search query order
  */
  late List<String> docDoc;
  //Initialise a new empty list and calls method to get document information
  @override
  void initState() {
    super.initState();
    docDoc = [];
    getDoc();
  }
  //Cloud Firestore library
  Future<void> getDoc() async {
    await FirebaseFirestore.instance.collection('jobs').orderBy('created', descending:
true).get().then(
      (snapshot) => snapshot.docs.forEach((element) {
        docDoc.add(element.reference.id);
      }
    );
    setState(() {});
  }

  ///Cloud Firestore library
  Future<void> UpdateStatus(String docId, String status, dynamic value) async {
    await FirebaseFirestore.instance.collection('jobs').doc(docId).update({status: value});
    setState(() {});
  }

```

```

  @override
  Widget build(BuildContext context) {

```

```

//keep up to date with the current screen metrics as they change
double screenHeight = MediaQuery.of(context).size.height;
double screenWidth = MediaQuery.of(context).size.width;

// firebase_auth signs out the user and goes to the login screen
Future signOut() async {
  await FirebaseAuth.instance.signOut();
  Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
}

List<Widget> nav = [
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>FleetRegDriver()));},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Fleet Management')
  ),
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>FleetJob()));},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Job Management')
  ),
  ElevatedButton(
    onPressed: () {signOut();},
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Logout')
  ),
];

```

/\*

\* Lines 145 - 153

\* Code produced by Mitch Koko

\* [www.youtube.com](http://www.youtube.com). (Mitch Koko).

\* (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.



\* [online] Available at: <https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s>.

\* Changes made to name of array

\*/

```
return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: Center(
    child: ListView.builder(
      itemCount: docDoc.length,
      itemBuilder: (context, index) {
        final docId = docDoc[index];
        return Padding(
          padding: const EdgeInsets.all(8.0),
          child: ListTile(
            title: GetJob(documentId: docId),
            tileColor: ConstColor.faint,
            trailing: Row(
              mainAxisAlignment: MainAxisAlignment.min,
              children: <Widget>[
                ElevatedButton(
                  style: ElevatedButton.styleFrom(
                    backgroundColor: ConstColor.add,
                    foregroundColor: ConstColor.background,
                    textStyle: const TextStyle(fontSize: 20),
                  ),
                  child: const Text('Accept'),
                  onPressed: () => UpdateStatus(docId, 'fleetStatus', 'Accepted'),
                ),
                ElevatedButton(
                  style: ElevatedButton.styleFrom(
                    backgroundColor: ConstColor.delete,
                    foregroundColor: ConstColor.background,
                    textStyle: const TextStyle(fontSize: 20),
                  ),
                  child: const Text('Reject'),
                  onPressed: () => UpdateStatus(docId, 'fleetStatus', 'Rejected'),
                ),
              ],
            ),
          );
        },
      ),
    ),
  );
},
), ); }}
```

## driver\_view.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Driver can see job request and their status.
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:db_test/const_color.dart';
import 'package:flutter/material.dart';

class GetJob extends StatelessWidget {

  /*
  * Lines 31 - 34
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to names of collection and outputs
  */
  late final String documentId;

  GetJob({required this.documentId});

  @override
  //Uses FireStore library to access collections and uses documentId to get and read every
  document indie a collection
  Widget build(BuildContext context) {
    return FutureBuilder<DocumentSnapshot>(
      future: FirebaseFirestore.instance.collection('jobs').doc(documentId).get(),
      builder: ((context, snapshot) {
        Map<String,dynamic> data = snapshot.data!.data() as Map<String,dynamic>;
        return Card(
          child: Padding(
            padding: const EdgeInsets.all(16.0),
            child: Column(
              crossAxisAlignment: CrossAxisAlignment.start,
              children: [
                Text('Registration: ${data['registration']}'),
                Text('Licence: ${data['licence']}'),
                Text('Size: ${data['size']}'),
                Text('Location: ${data['location']}'),
              ],
            ),
          ),
        );
      })
    );
  }
}
```

```

        Text('Garage: ${data['garage']}'),
        Text('Comment: ${data['comment']}'),
        Text('Fleet Status: ${data['fleetStatus']}'),
        Text('Garage Status: ${data['garageStatus']}'),
    ],
),
)
);
}
),
);
}
}
}

```

```

class DriverView extends StatefulWidget {
  const DriverView({Key? key}) : super(key: key);

```

```

  @override
  State<DriverView> createState() => DriverViewState();
}

```

```

class DriverViewState extends State<DriverView> {

```

```

  /*
  * Lines 76 - 91
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to names of collection and search query
  */
  late List<String> docDoc;

```

```

  @override
  void initState() {
    super.initState();
    docDoc = [];
    getDoc();
  }

```

```

  Future<void> getDoc() async {
    await FirebaseFirestore.instance.collection('jobs').orderBy('created', descending:
true).get().then(
      (snapshot) => snapshot.docs.forEach((element) {
        docDoc.add(element.reference.id);
      }),
    );
    setState(() {});
  }

```

```

}

/*
 * Lines 112 - 116
 * Code produced by Mitch Koko
 * www.youtube.com. (Mitch Koko).
 * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
 * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
 * Changes made to names of element items
 */
@override
Widget build(BuildContext context) {
  return Scaffold(
    appBar: AppBar(
      title: const Text('Daly Tyres'),
      backgroundColor: ConstColor.contrast,
    ),
    backgroundColor: ConstColor.background,
    body: ListView.separated(
      separatorBuilder: (context, index) => const Divider(),
      itemCount: docDoc.length,
      itemBuilder: (context, index) {
        final docId = docDoc[index];
        return ListTile(
          title: GetJob(documentId: docId),
        );
      },
    ),
  );
}
}

```

## driver\_job.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Driver creates a job requests.
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';

class DriverJob extends StatefulWidget {
  const DriverJob({Key? key}) : super(key: key);

  @override
  State<DriverJob> createState() => DriverJobState();
}

class DriverJobState extends State<DriverJob> {
  @override
  Widget build(BuildContext context) {
    //keep up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    //controllers for login process
    final registrationController = TextEditingController();
    final licenceController = TextEditingController();
    final sizeController = TextEditingController();
    final locationController = TextEditingController();
    final garageController = TextEditingController();
    final commentController = TextEditingController();

    return Scaffold(
      appBar: AppBar(
        title: const Text('Daly Tyres'),
        backgroundColor: ConstColor.contrast,
      ),
      backgroundColor: ConstColor.background,
      body: SizedBox(
        height: screenHeight,
        width: screenWidth,
        child: Row(
```

```

crossAxisAlignment: CrossAxisAlignment.start,
mainAxisAlignment: MainAxisAlignment.start,
children: [
  Expanded(
    child: Container(
      height: screenHeight,
      color: ConstColor.background,
      child: SingleChildScrollView(
        child: Column(
          crossAxisAlignment: CrossAxisAlignment.start,
          mainAxisAlignment: MainAxisAlignment.start,
          children: [
            SizedBox(
              height: screenHeight * 0.02,
            ),
            const Text('Job Request',
              style: TextStyle(
                fontSize: 40,
                color: ConstColor.contrast,
                fontWeight: FontWeight.bold,
              ),
            ),
            const Text('Create a Repair Request by entering details below.',
              style: TextStyle(
                fontSize: 20,
                color: ConstColor.faint,
                fontWeight: FontWeight.normal,
              ),
            ),
            SizedBox(
              height: screenHeight * 0.02,
            ),
            const Text('Registration',
              style: TextStyle(
                fontSize: 15,
                color: ConstColor.text,
                fontWeight: FontWeight.normal,
              ),
            ),
          ],
        ),
        Container(
          height: 50.0,
          width: screenWidth,
          decoration: BoxDecoration(
            border: Border.all(color: ConstColor.contrast),
            borderRadius: BorderRadius.circular(16),
          ),
          child: TextFormField(
            controller: registrationController,

```

```

        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Vehicle Registration Here',
        ),
      ),
    ),
    SizedBox(
      height: screenHeight * 0.02,
    ),
    const Text('Licence',
      style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
      ),
    ),
    Container(
      height: 50.0,
      width: screenWidth,
      decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
      ),
      child: TextFormField(
        controller: licenceController,
        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Your Licence No. Here',
        ),
      ),
    ),
    SizedBox(
      height: screenHeight * 0.02,
    ),
    const Text('Size',
      style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
      ),
    ),
    Container(
      height: 50.0,
      width: screenWidth,
      decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
      ),
    ),

```







```
'location' : locationController.text.trim(),
'garage' : garageController.text.trim(),
'comment' : commentController.text.trim(),
'fleetStatus' : 'InProgress',
'garageStatus' : 'InProgress',
'created' : DateTime.now(),
});
// clears TextFormFields once form is submitted
registrationController.clear();
licenceController.clear();
sizeController.clear();
locationController.clear();
garageController.clear();
commentController.clear();
},
child: Container(
  height: 50.0,
  width: screenWidth * 0.2,
  decoration: BoxDecoration(
    color: ConstColor.contrast,
    borderRadius: BorderRadius.circular(16),
  ),
  child: const Center(
    child: Text('Submit',
      style: TextStyle(
        fontSize: 15,
        color: ConstColor.background,
        fontWeight: FontWeight.normal,
      ),
    ),
  ),
),
),
),
),
),
),
),
),
),
),
),
),
),
);
}
}
```

# driver\_home.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Home screen for the driver.
 * Click on a button to enter a driver screen set.
 */

import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';
import 'driver_job.dart';
import 'driver_view.dart';
import 'login.dart';

class DriverHome extends StatefulWidget {
  const DriverHome({super.key});

  @override
  State<DriverHome> createState() => DriverHomeState();
}

class DriverHomeState extends State<DriverHome> {

  // firebase_auth signs out the user and goes to the login screen
  Future signOut() async {
    await FirebaseAuth.instance.signOut();
    Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
  }

  @override
  Widget build(BuildContext context) {
    //keep it up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    return Scaffold(
      appBar: AppBar(
        title: const Text('Daly Tyres'),
        backgroundColor: ConstColor.contrast,
      ),
      backgroundColor: ConstColor.background,
      body: SafeArea(
```

```

child: Center(
  child: Column(
    children: [
      SizedBox(
        height: screenHeight * 0.1,
      ),

      ElevatedButton(
        onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>DriverJob()));},
        style: ElevatedButton.styleFrom(
          backgroundColor: ConstColor.contrast,
          foregroundColor: ConstColor.background,
          padding: const EdgeInsets.all(16.0),
          textStyle: const TextStyle(fontSize: 20),
        ),
        child: const Text('Job')
      ),
      SizedBox(
        height: screenHeight * 0.02,
      ),

      ElevatedButton(
        onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>DriverView()));},
        style: ElevatedButton.styleFrom(
          backgroundColor: ConstColor.contrast,
          foregroundColor: ConstColor.background,
          padding: const EdgeInsets.all(16.0),
          textStyle: const TextStyle(fontSize: 20),
        ),
        child: const Text('View')
      ),
      SizedBox(
        height: screenHeight * 0.02,
      ),

      ElevatedButton(
        onPressed: () {signOut();},
        style: ElevatedButton.styleFrom(
          backgroundColor: ConstColor.contrast,
          foregroundColor: ConstColor.background,
          padding: const EdgeInsets.all(16.0),
          textStyle: const TextStyle(fontSize: 20),
        ),
        child: const Text('Logout')
      ),
    ],
  )));}}

```

## admin\_reg\_garage.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Admin user can register a new garage user.
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'admin_order.dart';
import 'admin_reg_fleet.dart';
import 'const_color.dart';
import 'login.dart';

class AdminRegGarage extends StatefulWidget {
  const AdminRegGarage({Key? key}) : super(key: key);

  @override
  State<AdminRegGarage> createState() => AdminRegGarageState();
}

class AdminRegGarageState extends State<AdminRegGarage> {
  @override
  Widget build(BuildContext context) {
    //keep up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    // firebase_auth signs out the user and goes to the login screen
    Future signOut() async {
      await FirebaseAuth.instance.signOut();
      Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
    }

    //controllers for login process
    final emailController = TextEditingController();
    final passwordController = TextEditingController();
    final garageNameController = TextEditingController();
    final locationController = TextEditingController();

    // Insert new record for driver in users collection
    Future addDetails(String garageName, String email, String location) async {
```

```

await FirebaseFirestore.instance.collection('users').add({
  'garageName': garageName,
  'garageLocation': location,
  'email': email,
  'role': 'garage',
});
}

// Uses Firebase_Auth library to construct query and creates a new user with email and
password credentials
Future register() async {
  await FirebaseAuth.instance.createUserWithEmailAndPassword(
    email: emailController.text.trim(),
    password: passwordController.text.trim(),
  );
  // Controllers from form
  addDetails(
    garageNameController.text.trim(),
    emailController.text.trim(),
    locationController.text.trim()
  );
  // clears TextFormFields once form is submitted
  emailController.clear();
  passwordController.clear();
  garageNameController.clear();
  locationController.clear();
}

List<Widget> nav = [
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegFleet());}),
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Fleet Management')
  ),
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegGarage());}),
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Garage Management')
  )
];

```

```

    ),
    ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminOrder()));},
    style: ElevatedButton.styleFrom(
    backgroundColor: ConstColor.contrast,
    foregroundColor: ConstColor.background,
    padding: const EdgeInsets.all(16.0),
    textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Orders')
  ),
  ElevatedButton(
    onPressed: () {signOut();},
    style: ElevatedButton.styleFrom(
    backgroundColor: ConstColor.contrast,
    foregroundColor: ConstColor.background,
    padding: const EdgeInsets.all(16.0),
    textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Logout')
  ),
];

```

```

return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: SizedBox(
    height: screenHeight,
    width: screenWidth,
    child: Row(
      crossAxisAlignment: CrossAxisAlignment.start,
      mainAxisAlignment: MainAxisAlignment.start,
      children: [
        Expanded(
          child: Container(
            color: ConstColor.background,
          ),
        ),
        Expanded(
          child: Container(
            height: screenHeight,
            color: ConstColor.background,
            child: SingleChildScrollView(
              padding: const EdgeInsets.only(bottom: 40.0),
            ),
          ),
        ),
      ],
    ),
  ),
);

```

```

child: Column(
  crossAxisAlignment: CrossAxisAlignment.start,
  mainAxisAlignment: MainAxisAlignment.start,
  children: [
    SizedBox(
      height: screenHeight * 0.2,
    ),
    const Text('Register Garage',
      style: TextStyle(
        fontSize: 40,
        color: ConstColor.contrast,
        fontWeight: FontWeight.bold,
      ),
    ),
    const Text('Hello Daly Tyres Admin. Please enter new Garage User details
below.',
      style: TextStyle(
        fontSize: 20,
        color: ConstColor.faint,
        fontWeight: FontWeight.normal,
      ),
    ),
    SizedBox(
      height: screenHeight * 0.02,
    ),
    const Text('Email',
      style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
      ),
    ),
    Container(
      height: 50.0,
      width: screenWidth,
      decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
      ),
      child: TextFormField(
        controller: emailController,
        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Email Here',
        ),
      ),
    ),
    SizedBox(

```



```

    height: screenHeight * 0.02,
  ),
  const Text('Password',
    style: TextStyle(
      fontSize: 15,
      color: ConstColor.text,
      fontWeight: FontWeight.normal,
    ),
  ),
  Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
      border: Border.all(color: ConstColor.contrast),
      borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
      controller: passwordController,
      obscureText: true,
      decoration: const InputDecoration(
        border: InputBorder.none,
        hintText: 'Enter Email Here',
      ),
    ),
  ),
  SizedBox(
    height: screenHeight * 0.02,
  ),
  const Text('Garage Name',
    style: TextStyle(
      fontSize: 15,
      color: ConstColor.text,
      fontWeight: FontWeight.normal,
    ),
  ),
  Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
      border: Border.all(color: ConstColor.contrast),
      borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
      controller: garageNameController,
      decoration: const InputDecoration(
        border: InputBorder.none,
        hintText: 'Enter Fleet Name Here',
      ),
    ),
  ),

```

```

    ),
  ),
  SizedBox(
    height: screenHeight * 0.02,
  ),
  const Text('Garage Location',
    style: TextStyle(
      fontSize: 15,
      color: ConstColor.text,
      fontWeight: FontWeight.normal,
    ),
  ),
  Container(
    height: 50.0,
    width: screenWidth,
    decoration: BoxDecoration(
      border: Border.all(color: ConstColor.contrast),
      borderRadius: BorderRadius.circular(16),
    ),
    child: TextFormField(
      controller: locationController,
      decoration: const InputDecoration(
        border: InputBorder.none,
        hintText: 'Enter Location Here',
      ),
    ),
  ),
  SizedBox(
    height: screenHeight * 0.05,
  ),

  GestureDetector(
    onTap: register,
    child: Container(
      height: 50.0,
      width: screenWidth * 0.1,
      decoration: BoxDecoration(
        color: ConstColor.contrast,
        borderRadius: BorderRadius.circular(16),
      ),
      child: const Center(
        child: Text('Register',
          style: TextStyle(
            fontSize: 15,
            color: ConstColor.background,
            fontWeight: FontWeight.normal,
          ),
        ),
      ),
    ),
  ),

```

```
        ),
      ),
    ),
    ],
  ),
),
Expanded(
  child: Container(
    color: ConstColor.background,
  ),
),
],
)
);
}
}
```

## admin\_reg\_fleet.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Admin user can register a new garage user.
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'admin_order.dart';
import 'admin_reg_garage.dart';
import 'package:flutter/material.dart';
import 'const_color.dart';
import 'login.dart';

class AdminRegFleet extends StatefulWidget {
  const AdminRegFleet({Key? key}) : super(key: key);

  @override
  State<AdminRegFleet> createState() => AdminRegFleetState();
}

class AdminRegFleetState extends State<AdminRegFleet> {
  @override
  Widget build(BuildContext context) {
    //keep up to date with the current screen metrics as they change
    double screenHeight = MediaQuery.of(context).size.height;
    double screenWidth = MediaQuery.of(context).size.width;

    //controllers for login process
    final emailController = TextEditingController();
    final passwordController = TextEditingController();
    final fleetNameController = TextEditingController();

    // firebase_auth signs out the user and goes to the login screen
    Future signOut() async {
      await FirebaseAuth.instance.signOut();
      Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
    }

    // Insert new record for driver in users collection
    Future addDetails(String fleetName, String email) async {
      await FirebaseFirestore.instance.collection('users').add({

```

```

        'fleetName': fleetName,
        'email': email,
        'role': 'fleet'
    });
}

// Uses Firebase_Auth library to construct query and creates a new user with email and
password credentials
Future register() async {
  await FirebaseAuth.instance.createUserWithEmailAndPassword(
    email: emailController.text.trim(),
    password: passwordController.text.trim(),
  );
  // Controllers from form
  addDetails(
    fleetNameController.text.trim(),
    emailController.text.trim()
  );
  // clears TextFormFields once form is submitted
  emailController.clear();
  passwordController.clear();
  fleetNameController.clear();
}

List<Widget> nav = [
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegFleet());}),
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Fleet Management')
  ),
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegGarage());}),
    style: ElevatedButton.styleFrom(
      backgroundColor: ConstColor.contrast,
      foregroundColor: ConstColor.background,
      padding: const EdgeInsets.all(16.0),
      textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Garage Management')
  ),
  ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminOrder());}),
    style: ElevatedButton.styleFrom(

```

```

        backgroundColor: ConstColor.contrast,
        foregroundColor: ConstColor.background,
        padding: const EdgeInsets.all(16.0),
        textStyle: const TextStyle(fontSize: 20),
    ),
    child: const Text('Orders')
),
ElevatedButton(
  onPressed: () {signOut();},
  style: ElevatedButton.styleFrom(
    backgroundColor: ConstColor.contrast,
    foregroundColor: ConstColor.background,
    padding: const EdgeInsets.all(16.0),
    textStyle: const TextStyle(fontSize: 20),
  ),
  child: const Text('Logout')
),
];

return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: SizedBox(
    height: screenHeight,
    width: screenWidth,
    child: Row(
      crossAxisAlignment: CrossAxisAlignment.start,
      mainAxisAlignment: MainAxisAlignment.start,
      children: [
        Expanded(
          child: Container(
            color: ConstColor.background,
          ),
        ),
        Expanded(
          child: Container(
            height: screenHeight,
            color: ConstColor.background,
            child: SingleChildScrollView(
              padding: const EdgeInsets.only(bottom: 40.0),
              child: Column(
                crossAxisAlignment: CrossAxisAlignment.start,
                mainAxisAlignment: MainAxisAlignment.start,
                children: [

```

```

        SizedBox(
          height: screenHeight * 0.2,
        ),
        const Text('Register Fleet',
          style: TextStyle(
            fontSize: 40,
            color: ConstColor.contrast,
            fontWeight: FontWeight.bold,
          ),
        ),
        const Text('Hello Daly Tyres Admin. Please enter new Fleet User details
below.',
          style: TextStyle(
            fontSize: 20,
            color: ConstColor.faint,
            fontWeight: FontWeight.normal,
          ),
        ),
        SizedBox(
          height: screenHeight * 0.02,
        ),
        const Text('Email',
          style: TextStyle(
            fontSize: 15,
            color: ConstColor.text,
            fontWeight: FontWeight.normal,
          ),
        ),
        Container(
          height: 50.0,
          width: screenWidth,
          decoration: BoxDecoration(
            border: Border.all(color: ConstColor.contrast),
            borderRadius: BorderRadius.circular(16),
          ),
          child: TextFormField(
            controller: emailController,
            decoration: const InputDecoration(
              border: InputBorder.none,
              hintText: 'Enter Email Here',
            ),
          ),
        ),
        SizedBox(
          height: screenHeight * 0.02,
        ),
        const Text('Password',
          style: TextStyle(

```

```

        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
      ),
    ),
    Container(
      height: 50.0,
      width: screenWidth,
      decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
      ),
      child: TextFormField(
        controller: passwordController,
        obscureText: true,
        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Email Here',
        ),
      ),
    ),
    ),
    ),
    SizedBox(
      height: screenHeight * 0.02,
    ),
    const Text('Fleet Name',
      style: TextStyle(
        fontSize: 15,
        color: ConstColor.text,
        fontWeight: FontWeight.normal,
      ),
    ),
    ),
    Container(
      height: 50.0,
      width: screenWidth,
      decoration: BoxDecoration(
        border: Border.all(color: ConstColor.contrast),
        borderRadius: BorderRadius.circular(16),
      ),
      child: TextFormField(
        controller: fleetNameController,
        decoration: const InputDecoration(
          border: InputBorder.none,
          hintText: 'Enter Fleet Name Here',
        ),
      ),
    ),
    ),
    ),
    SizedBox(
      height: screenHeight * 0.05,

```



```

    ),
    GestureDetector(
      onTap: register,
      child: Container(
        height: 50.0,
        width: screenWidth * 0.1,
        decoration: BoxDecoration(
          color: ConstColor.contrast,
          borderRadius: BorderRadius.circular(16),
        ),
      ),
      child: const Center(
        child: Text('Register',
          style: TextStyle(
            fontSize: 15,
            color: ConstColor.background,
            fontWeight: FontWeight.normal,
          ),
        ),
      ),
    ),
  ],
),
Expanded(
  child: Container(
    color: ConstColor.background,
  ),
),
],
)
);
}
}

```

## admin\_order.dart

```
/*
 * Student Name: Rachel Doogue
 * Student No: C00237335
 * Lecturer: Dr Joseph Kehoe
 * Licence: GNU General Public License, version 3
 * Project Name: Daly Tyres Fleet Management App
 * Description: Admin user can see order requests.
 *             Accept or Reject
 */

import 'package:cloud_firestore/cloud_firestore.dart';
import 'package:firebase_auth/firebase_auth.dart';
import 'package:flutter/material.dart';
import 'admin_reg_fleet.dart';
import 'admin_reg_garage.dart';
import 'garage_order.dart';
import 'login.dart';
import 'const_color.dart';

class GetJob extends StatelessWidget {

  /*
  * Lines 30 - 40
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to name of the collection and and to the contents of the Text widget
  */
  late final String documentId;

  GetJob({required this.documentId});

  @override
  //Uses FireStore library to access collections and uses documentId to get and read every
  document indie a collection
  Widget build(BuildContext context) {
    return FutureBuilder<DocumentSnapshot>(
      future: FirebaseFirestore.instance.collection('orders').doc(documentId).get(),
      builder: ((context, snapshot) {
        Map<String,dynamic> data = snapshot.data!.data() as Map<String,dynamic>;
        return Text('Manufacturer : ${data['manufacturer']} \nModel : ${data['model']} \nType :
        ${data['type']} \nCategory : ${data['category']} \nQuantity : ${data['quantity']} \nStatus :
        ${data['adminStatus']} \nCreated : ${data['created']}');
      })
    );
  }
}
```

```

    ),
  );
}
}

```

```

class AdminOrder extends StatefulWidget {
  const AdminOrder({Key? key}) : super(key: key);

  @override
  State<AdminOrder> createState() => AdminOrderState();
}

```

```

class AdminOrderState extends State<AdminOrder> {

  /*
  * Lines 65 - 80
  * Code produced by Mitch Koko
  * www.youtube.com. (Mitch Koko).
  * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
  * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
  * Changes made to names of collection and search query order
  */
  late List<String> docDoc;
  //Initialise a new empty list and calls method to get document information
  @override
  void initState() {
    super.initState();
    docDoc = [];
    getDoc();
  }
  //fetches data from Firestore
  //Uses cloud_firestore library
  Future<void> getDoc() async {
    await FirebaseFirestore.instance.collection('orders').orderBy('created', descending:
true).get().then(
      (snapshot) => snapshot.docs.forEach((element) {
        docDoc.add(element.reference.id);
      }),
    );
    setState(() {});
  }
  //Uses cloud_firestore library
  Future<void> UpdateStatus(String docId, String status, dynamic value) async {
    await FirebaseFirestore.instance.collection('orders').doc(docId).update({status: value});
    setState(() {});
  }

  @override

```

```

Widget build(BuildContext context) {
  //keep up to date with the current screen metrics as they change
  double screenHeight = MediaQuery.of(context).size.height;
  double screenWidth = MediaQuery.of(context).size.width;

  // firebase_auth signs out the user and goes to the login screen
  Future signOut() async {
    await FirebaseAuth.instance.signOut();
    Navigator.pushReplacement(context, MaterialPageRoute(builder: (context) => Login()));
  }

  List<Widget> nav = [
    ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegFleet()));},
      style: ElevatedButton.styleFrom(
        backgroundColor: ConstColor.contrast,
        foregroundColor: ConstColor.background,
        padding: const EdgeInsets.all(16.0),
        textStyle: const TextStyle(fontSize: 20),
      ),
      child: const Text('Fleet Management')
    ),
    ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminRegGarage()));},
      style: ElevatedButton.styleFrom(
        backgroundColor: ConstColor.contrast,
        foregroundColor: ConstColor.background,
        padding: const EdgeInsets.all(16.0),
        textStyle: const TextStyle(fontSize: 20),
      ),
      child: const Text('Garage Management')
    ),
    ElevatedButton(onPressed: () {Navigator.of(context).push(MaterialPageRoute(builder:
(context)=>AdminOrder()));},
      style: ElevatedButton.styleFrom(
        backgroundColor: ConstColor.contrast,
        foregroundColor: ConstColor.background,
        padding: const EdgeInsets.all(16.0),
        textStyle: const TextStyle(fontSize: 20),
      ),
      child: const Text('Orders')
    ),
    ElevatedButton(
      onPressed: () {signOut();},
      style: ElevatedButton.styleFrom(
        backgroundColor: ConstColor.contrast,
        foregroundColor: ConstColor.background,
        padding: const EdgeInsets.all(16.0),

```

```

        textStyle: const TextStyle(fontSize: 20),
      ),
      child: const Text('Logout')
    ),
  ];

/*
 * Lines 156 - 164
 * Code produced by Mitch Koko
 * www.youtube.com. (Mitch Koko).
 * (CRUD)Read & Display Data • Firebase x Flutter Tutorial ♡.
 * [online] Available at: https://www.youtube.com/watch?v=PBxbWZZTG2Q&t=580s.
 * Changes made to name of array
 */
return Scaffold(
  appBar: AppBar(
    title: const Text('Daly Tyres'),
    backgroundColor: ConstColor.contrast,
    actions: nav,
  ),
  backgroundColor: ConstColor.background,
  body: Center(
    child: ListView.builder(
      itemCount: docDoc.length,
      itemBuilder: (context, index) {
        final docId = docDoc[index];
        return Padding(
          padding: const EdgeInsets.all(8.0),
          child: ListTile(
            title: GetJob(documentId: docId),
            tileColor: ConstColor.faint,
            trailing: Row(
              mainAxisAlignment: MainAxisAlignment.min,
              children: <Widget>[
                ElevatedButton(
                  style: ElevatedButton.styleFrom(
                    backgroundColor: ConstColor.add,
                    foregroundColor: ConstColor.background,
                    textStyle: const TextStyle(fontSize: 20),
                  ),
                  child: const Text('Accept'),
                  onPressed: () => UpdateStatus(docId, 'garageStatus', 'Accepted'),
                ),
                ElevatedButton(
                  style: ElevatedButton.styleFrom(
                    backgroundColor: ConstColor.delete,
                    foregroundColor: ConstColor.background,
                    textStyle: const TextStyle(fontSize: 20),

```

```
    ),
    child: const Text('Reject'),
    onPressed: () => UpdateStatus(docId, 'garageStatus', 'Rejected'),
  ),
],
),
),
);
},
),
),
);
}
}
```

## const\_color.dart

```
/*  
* Student Name: Rachel Doogue  
* Student No: C00237335  
* Lecturer: Dr Joseph Kehoe  
* Licence: GNU General Public License, version 3  
* Project Name: Daly Tyres Fleet Management App  
* Description: common theme colours  
*/  
  
import 'package:flutter/material.dart';  
  
class ConstColor {  
  static const Color background = Color(0xffffffff);  
  static const Color contrast = Color(0xff0000ff);  
  static const Color faint = Color(0xff808080);  
  static const Color text = Color(0xff000000);  
  static const Color add = Color(0xff32CD32);  
  static const Color delete = Color(0xffff0000);  
}
```