



Sri Lanka Institute of Information Technology

B.Sc. Honors Degree in Information Technology

Specialized in Software Engineering

Year 4, Semester 2 (2022)

SE4040 – Enterprise Application Development

Group Project

Detail Report

Contribution

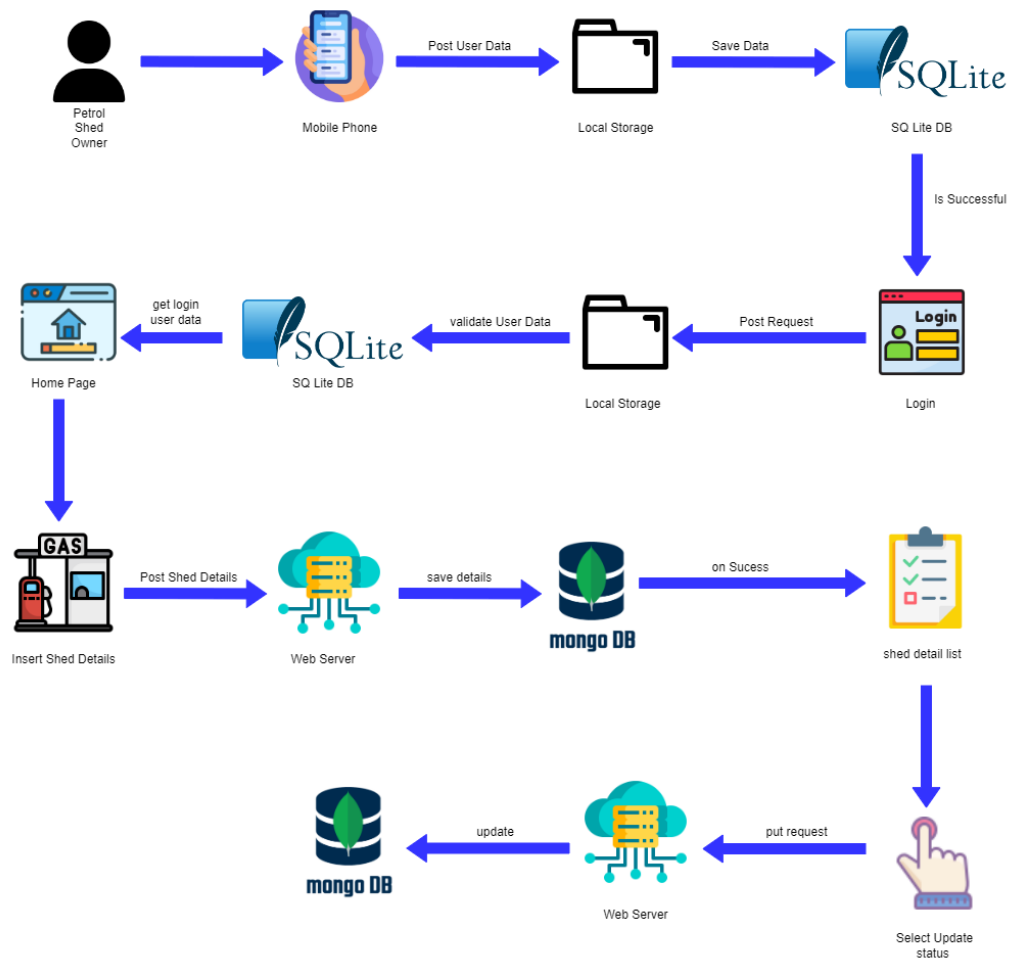
IT Number	Name	Contribution
IT19123950	Madushka G.A.P	Intriduction, Fuel shed owner
IT19214580	S. M. Bulner	Client , database design

1. Introduction

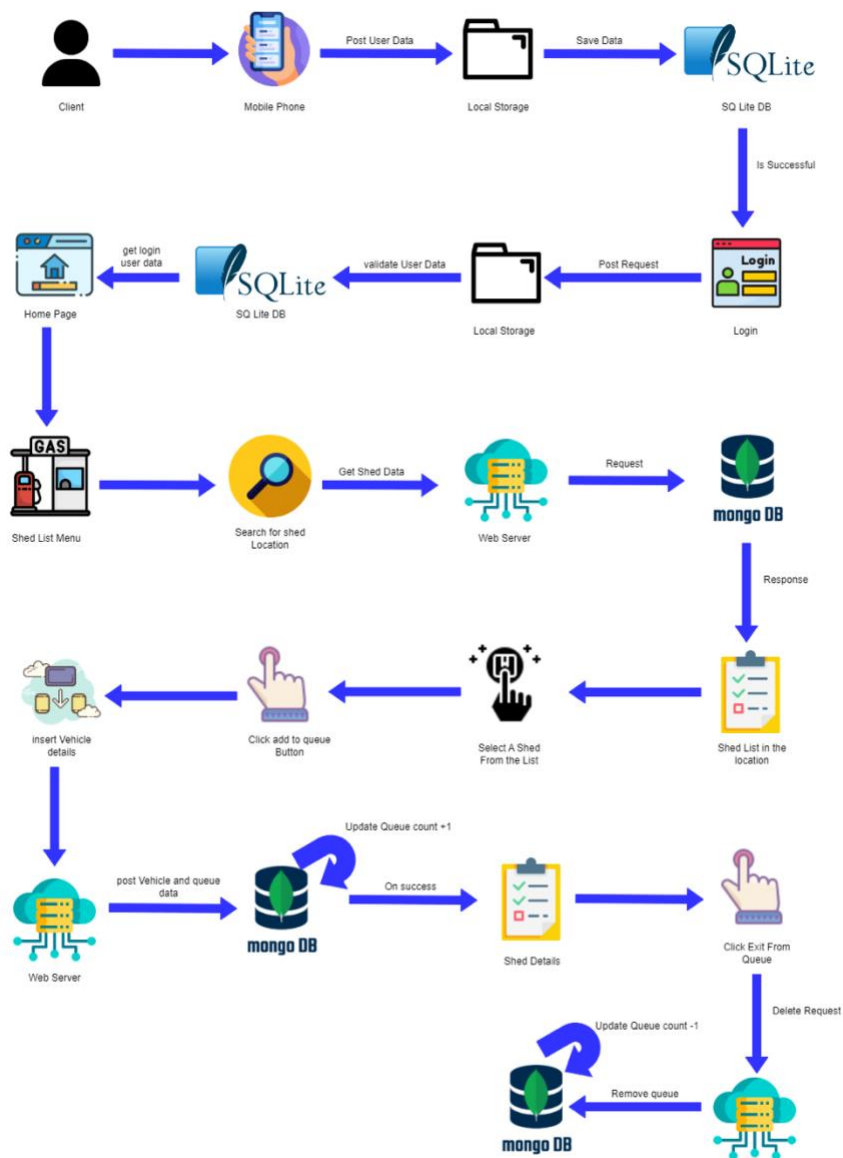
Fuel crisis can be identified as one of the serious issues faced by citizens in Sri Lanka. Time wastage, unwanted Quarrels between citizens in the queue etc are some of the issues faced by many because of the fuel crisis. Fuel Electronic Queue (FEQ) is java and node based application which is introduced to overcome almost all the problems of the current fuel distribution system. In the this application Fuel shed owners can add their fuel stations to the system by entering the details and also he can update the fuel status when ever the fuel is available or not . As the client of the fuel stations he/she can search by passing the location to search bar. After that system will display the fuel stations in the location. And if the fuel is available user can select that and add their vehicle to the queue . Ability to see how many vehicles are ahead in the queue is one of the most useful features in the application. If the user want to exit the queue before pumping fuel he can click the exit before pumping button.

2. High-Level Diagrams

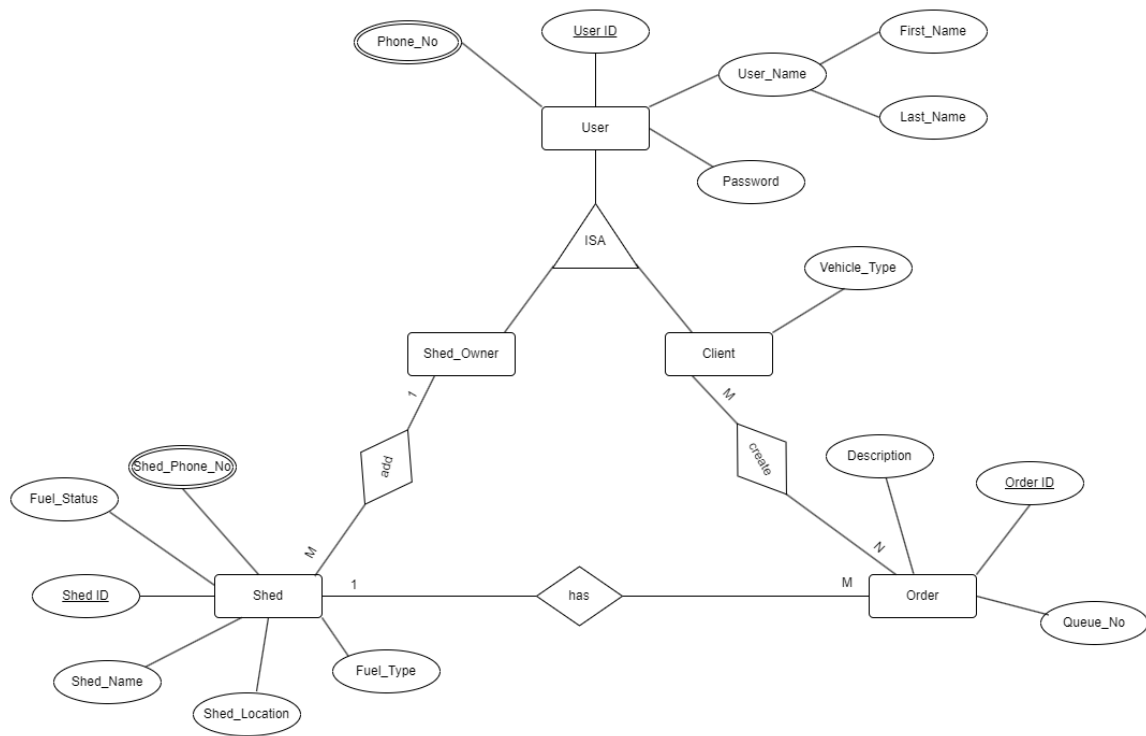
2.1 Fuel-Shed Owner



2.2 Client

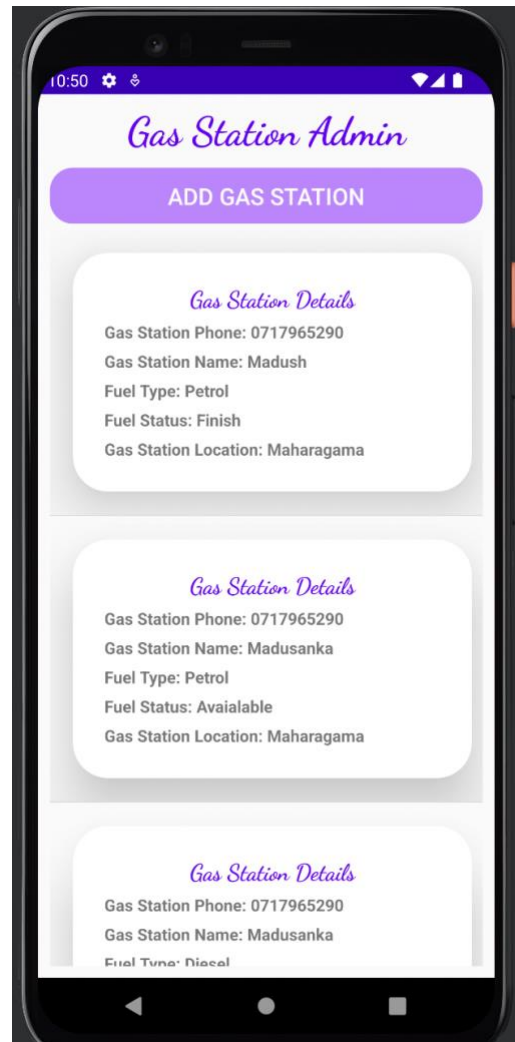
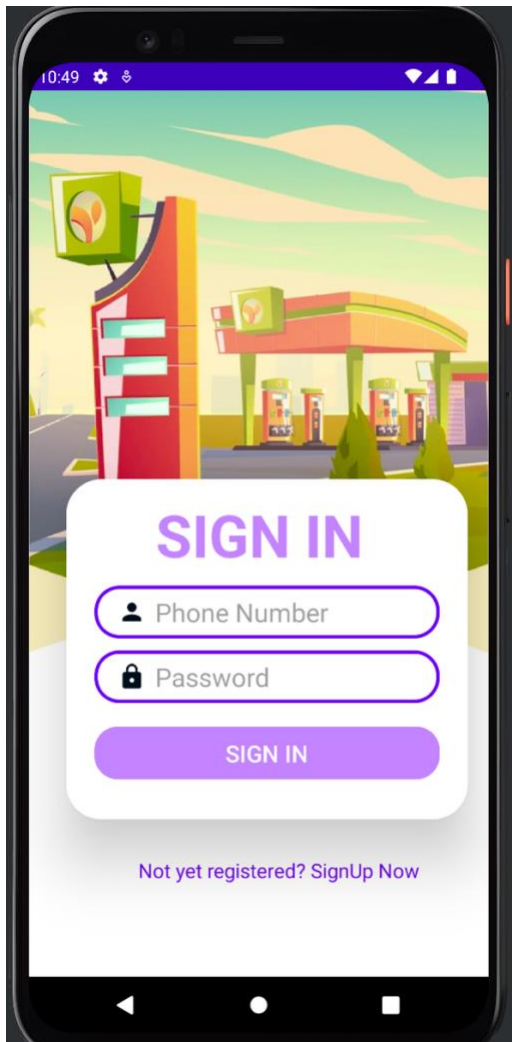


3. Database Design



4. Screenshots of UI (User Interfaces)

4.1 Screenshots of IT19123950 – Madusanka G.A.P



10:51

Gas Station Admin

Gas Station Phone Number

0717965290

Gas Station Name

Madush

Fuel Type

Petrol

Fuel status

Finish

Station Location

Maharagama

SAVE

DELETE STATION

10:59

Gas Station Admin

Gas Station Phone Number

0717965290

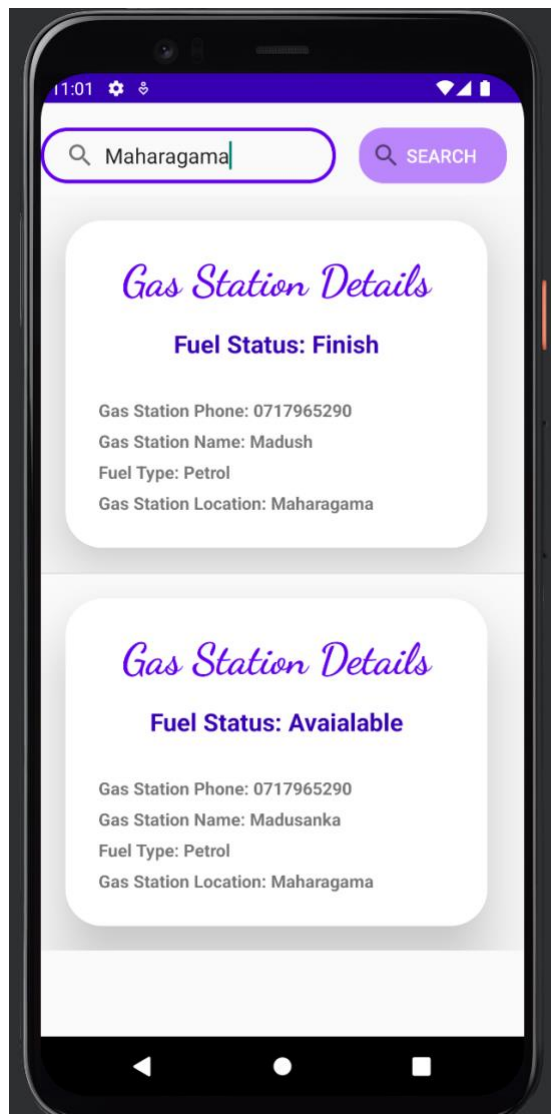
Gas Station Name

Fuel Type

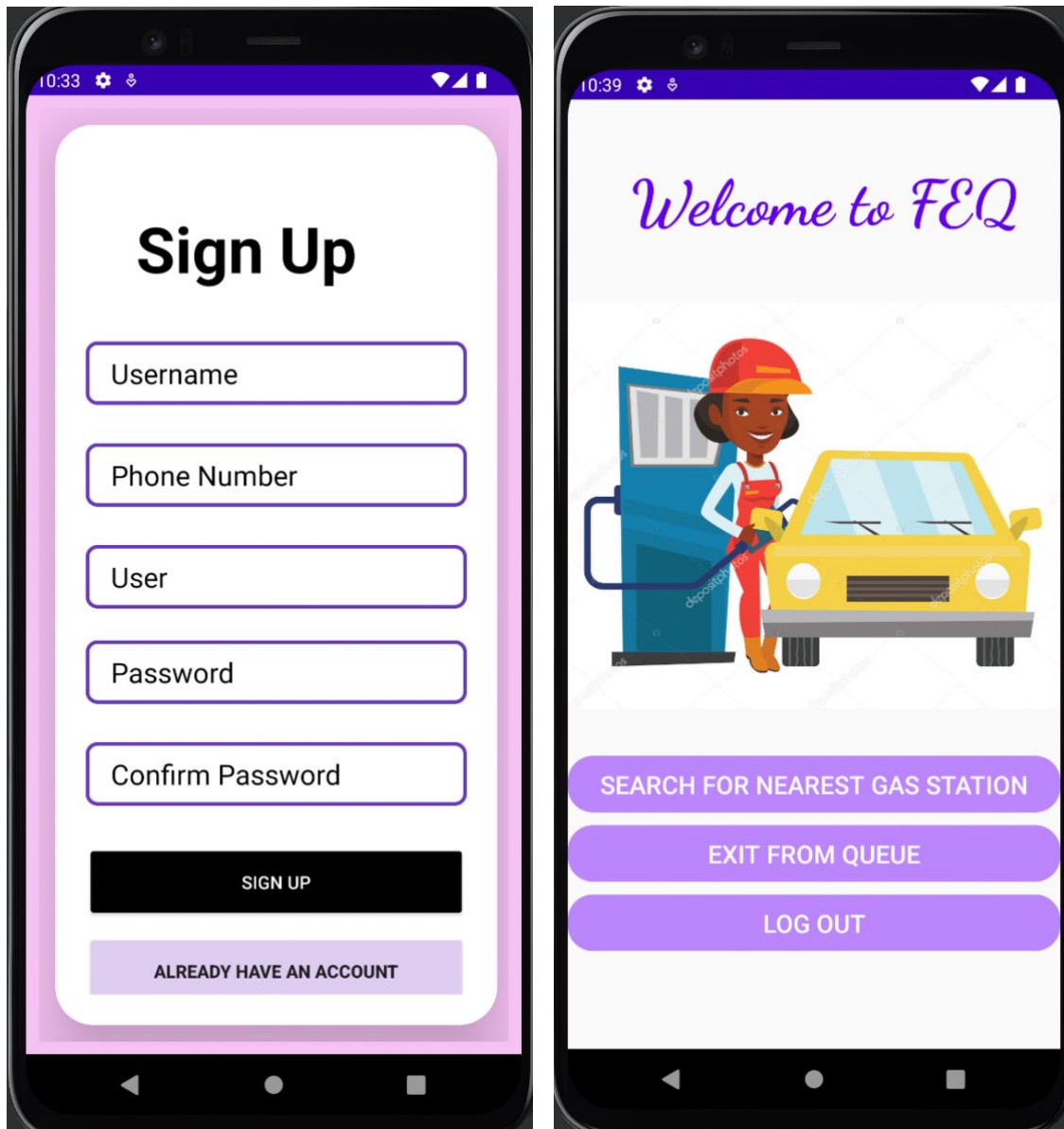
Fuel status

Station Location

SAVE



4.2 Screenshots of IT19214580 – S M Bulner



10:41

Join To The Fuel Queue

Vehicles In The Queue: 3
Waiting Time: 15 min

Gas Station Phone Number
0717965290

User name

User Phone

Vehicle type

SAVE

 fetched successfully!

10:43

Exit From The Fuel Queue

Shed Phone Number
Shed Phone Number

Gas Station Phone Number
0717965290

User name
dfdds

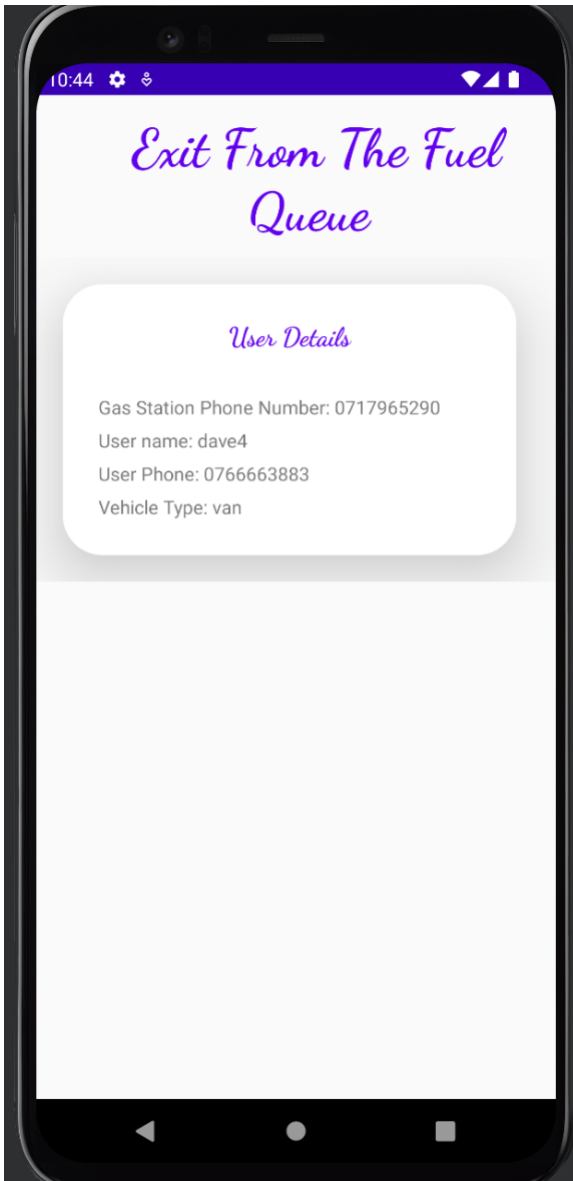
User Phone
sdsd

Vehicle type
sds

SAVE

EXIT FROM QUEUE

EXIT BEFORE PUMPING FUEL



5. Code Files

5.1 IT19123950 Madusanka G.A.P

Frontend

Login.java

```
/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.TextView;
import android.widget.Toast;

import com.example.fuelappead.DBHelper.DBHelper;

public class Login extends AppCompatActivity {

    TextView txtSignUp;
    EditText username, password;
    Button signin;

    DBHelper DB;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        username = findViewById(R.id.username1);
        password = findViewById(R.id.password1);
        signin = findViewById(R.id.signin1);
        txtSignUp = findViewById(R.id.signupText);
        DB = new DBHelper(this);

    }

    /**
     * Function for login activity
     */
}
```

```

*/
signin.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String user = username.getText().toString();
        String pass = password.getText().toString();

        if(TextUtils.isEmpty(user) || TextUtils.isEmpty(pass)){
            Toast.makeText(Login.this, "All Fields required",
Toast.LENGTH_SHORT).show();
        }else{
            Boolean checkuserpass = DB.usernamepassCheck(user,pass);
            if(checkuserpass == true){
                Toast.makeText(Login.this, "Login Successful",
Toast.LENGTH_SHORT).show();
                Boolean userRoleCheck = DB.userRoleCheck(user, pass);
                if(userRoleCheck == true){
                    Intent intent = new
Intent(getApplicationContext(), ShedOwnerHome.class);

                    intent.putExtra("phoneno", user );
                    startActivity(intent);
                }else {
                    Intent intent = new
Intent(getApplicationContext(), UserHome.class);

                    intent.putExtra("phoneno", user );
                    startActivity(intent);
                }
            }else {
                Toast.makeText(Login.this, "Login Failed",
Toast.LENGTH_SHORT).show();
            }
        }
    }
});

txtSignUp.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent intent = new Intent(getApplicationContext(),
Register.class);
        startActivity(intent);
    }
});
}
}

```

Activity_login.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingTop="300dp"
    android:background="@drawable/gas156"
    android:orientation="vertical"
    tools:context=".Login">

    <!-- <TextView-->
    <!--     android:layout_width="240dp"-->
    <!--     android:layout_height="wrap_content"-->
    <!--     android:text="SIGN IN"-->
    <!--     android:textColor="@color/purple_200"-->
    <!--     android:textSize="60dp"-->
    <!--     android:textStyle="bold"-->
    <!--     android:layout_gravity="right"-->
    <!--     android:layout_marginTop="10dp"-->
    <!--     android:layout_marginBottom="150dp"/>-->

    <androidx.cardview.widget.CardView
        android:layout_width="343dp"
        android:layout_height="wrap_content"
        android:layout_margin="32dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="40dp"
        android:background="@drawable/cardviewedittext">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="24dp">
            <TextView
                android:layout_width="190dp"
                android:layout_height="wrap_content"
                android:text="SIGN IN"
                android:textColor="@color/purple_200"
                android:textSize="50dp"
                android:textStyle="bold"
                android:layout_gravity="center"
                android:layout_marginTop="-10dp"
                android:layout_marginBottom="10dp"/>
            <!-- <TextView-->
            <!--     android:layout_width="wrap_content"-->
            <!--     android:layout_height="wrap_content"-->
            <!--     android:layout_marginBottom="5dp"-->
            <!--     android:paddingLeft="10dp"-->
            <!--     android:text="Select the user type"-->
            <!--     android:textAlignment="textStart"-->
            <!--     android:textColor="@color/purple_500"-->
            <!--     android:textSize="17sp" />-->
            <!-- <Spinner-->
            <!--     android:id="@+id/spinner2"-->

```

```

<!--         android:layout_width="match_parent"-->
<!--         android:layout_height="45dp"-->
<!--         android:background="@drawable/cardviewedittext"-->
<!--         android:layout_marginBottom="10dp"-->
<!--         android:textColorHint="@color/black"-->
<!--         android:spinnerMode="dropdown"/>-->
        <EditText
            android:id="@+id/username1"
            android:layout_width="match_parent"
            android:layout_height="45dp"
            android:layout_marginBottom="10dp"
            android:hint="Phone Number"
            android:paddingLeft="20dp"
            android:drawablePadding="8dp"
            android:textColorHighlight="@color/black"
            android:background="@drawable/cardviewedittext"

            android:drawableLeft="@drawable/app_src_main_res_drawable_ic_baseline_person_24"

            android:textSize="22dp" />

        <EditText
            android:id="@+id/password1"
            android:layout_width="match_parent"
            android:layout_height="45dp"
            android:layout_marginBottom="20dp"
            android:background="@drawable/cardviewedittext"
            android:hint="Password"
            android:drawablePadding="8dp"
            android:inputType="textPassword"
            android:paddingLeft="20dp"

            android:drawableLeft="@drawable/app_src_main_res_drawable_ic_baseline_lock_24"
            "
            android:textColorHighlight="@color/black"
            android:textSize="22dp" />

        <Button
            android:id="@+id/signin1"
            android:layout_width="match_parent"
            android:layout_height="45dp"
            android:layout_marginBottom="10dp"
            android:text="Sign In"
            android:textColor="@color/white"
            android:textSize="20dp"
            android:backgroundTint="@color/purple_200"
            android:background="@drawable/round_button"
            />
    </LinearLayout>

</androidx.cardview.widget.CardView>

<TextView
    android:id="@+id/signupText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="20dp"

```

```
        android:paddingLeft="93dp"
        android:text="Not yet registered? SignUp Now"
        android:textAlignment="center"
        android:textColor="@color/purple_500"
        android:textSize="17sp" />
```

```
</LinearLayout>
```

ShedOwnerHome.java

```
/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.remote.ApiUutils;
import com.example.fuelappead.remote.FuelService;

import java.util.ArrayList;
import java.util.List;

import retrofit2.Callback;
import retrofit2.Call;
import retrofit2.Response;

public class ShedOwnerHome extends AppCompatActivity {

    private TextView shedname;

    Button btnAddUser;

    ListView listView;

    FuelService fuelService;
    List<Fuel> list = new ArrayList<Fuel>();
    List<Fuel> list1 = new ArrayList<Fuel>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_shed_owner_home);
    }
}
```



```

        btnAddUser = (Button) findViewById(R.id.btnAddUser);
        listView = (ListView) findViewById(R.id.listView);
        fuelService = ApiUtils.getFuelService();

        String phone = getIntent().getStringExtra("phoneno");
        getFuelbyShed(phone);

        btnAddUser.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(getApplicationContext(),
FuelAdd.class);
                intent.putExtra("username", "");
                intent.putExtra("shedPhone",
getIntent().getStringExtra("phoneno"));
                startActivity(intent);
            }
        });

    }

    /**
     *
     * get the relevant gas station details of the owner
     */
    public void getFuelbyShed (String phone){
        Call<List<Fuel>> call = fuelService.getFuelByShed(phone);
        call.enqueue(new Callback <List<Fuel>>(){

            @Override
            public void onResponse(Call<List<Fuel>> call,
Response<List<Fuel>> response) {
                if(response.isSuccessful()){
                    list1 = response.body();
                    listView.setAdapter(new FuelAdapter(ShedOwnerHome.this,
R.layout.list_fuel, list1));
                    Toast.makeText(ShedOwnerHome.this, "fetched shedby feuw1
successfully!", Toast.LENGTH_SHORT).show();
                }
            }

            @Override
            public void onFailure(Call<List<Fuel>> call, Throwable t) {
                Log.e("ERROR: ", t.getMessage());
            }
        });
    }
}

```

ShedOwnerHome.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner

```

```

* 26/10/2022
*/
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.remote.ApiUutils;
import com.example.fuelappead.remote.FuelService;

import java.util.ArrayList;
import java.util.List;

import retrofit2.Callback;
import retrofit2.Call;
import retrofit2.Response;

public class ShedOwnerHome extends AppCompatActivity {

    private TextView shedname;

    Button btnAddUser;

    ListView listView;

    FuelService fuelService;
    List<Fuel> list = new ArrayList<Fuel>();
    List<Fuel> list1 = new ArrayList<Fuel>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_shed_owner_home);

        btnAddUser = (Button) findViewById(R.id.btnAddUser);
        listView = (ListView) findViewById(R.id.listView);
        fuelService = ApiUutils.getFuelService();

        String phone = getIntent().getStringExtra("phoneno");
        getFuelbyShed(phone);

        btnAddUser.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

```

```

        Intent intent = new Intent(getApplicationContext(),
FuelAdd.class);
        intent.putExtra("username", "");
        intent.putExtra("shedPhone",
getIntent().getStringExtra("phoneno"));
        startActivity(intent);
    }
    });

}

/**
 *
 * get the relevant gas station details of the owner
 */
public void getFuelbyShed (String phone){
    Call<List<Fuel>> call = fuelService.getFuelByShed(phone);
    call.enqueue(new Callback <List<Fuel>>() {

        @Override
        public void onResponse(Call<List<Fuel>> call,
Response<List<Fuel>> response) {
            if(response.isSuccessful()){
                list1 = response.body();
                listView.setAdapter(new FuelAdapter(ShedOwnerHome.this,
R.layout.list_fuel, list1));
                Toast.makeText(ShedOwnerHome.this, "fetched shedby fewwl
successfully!", Toast.LENGTH_SHORT).show();
            }
        }

        @Override
        public void onFailure(Call<List<Fuel>> call, Throwable t) {
            Log.e("ERROR: ", t.getMessage());
        }
    });
}
}
}

```

Activity_shed_Owner_home.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="10dp"
    android:orientation="vertical"

```

```

tools:context=".ShedOwnerHome">

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/shedname1"
    android:text="Gas Station Admin"
    android:textSize="34dp"
    android:textAlignment="center"
    android:fontFamily="cursive"
    android:paddingBottom="10dp"
    android:textStyle="bold"
    android:textColor="@color/purple_500"/>

<Button
    android:id="@+id/btnAddUser"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Add Gas Station"
    android:textColor="@color/white"
    android:textSize="20dp"
    android:backgroundTint="@color/purple_200"
    android:background="@drawable/round_button"
    android:layout_marginBottom="5dp"
/>

<!-- <Button-->
    android:id="@+id/btnGetUsersList"-->
    android:layout_width="match_parent"-->
    android:layout_height="wrap_content"-->
    android:text="Fetch users"-->
    android:textColor="@color/white"-->
    android:textSize="20dp"-->
    android:backgroundTint="@color/purple_200"-->
    android:background="@drawable/round_button"-->
    android:layout_marginBottom="5dp"-->
/>-->

<!-- <Button-->
    android:id="@+id/btnGetFuelbyshed"-->
    android:layout_width="match_parent"-->
    android:layout_height="wrap_content"-->
    android:text="FuelBy shed"-->
    android:textColor="@color/white"-->
    android:textSize="20dp"-->
    android:backgroundTint="@color/purple_200"-->
    android:background="@drawable/round_button"-->
    android:layout_marginBottom="5dp"-->
/>-->

<ListView
    android:id="@+id/listView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content">

</ListView>

```

```
</LinearLayout>
```

FuelAdd.java

```
/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.remote.ApiUtils;
import com.example.fuelappead.remote.FuelService;

import retrofit2.Call;
import retrofit2.Callback;
import retrofit2.Response;
public class FuelAdd extends AppCompatActivity {

    FuelService fuelService;
    EditText edtfuelId;
    EditText phoneNumber;
    EditText shedName;
    EditText fuelType;
    EditText fuelStatus;
    EditText stationLocation;
    Button btnSave;
    Button btnDel;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_fuel_add);

        //edtfuelId = findViewById(R.id.shedId);
        phoneNumber = findViewById(R.id.shedPhone);
        shedName = findViewById(R.id.name);
        fuelType = findViewById(R.id.fuelType);
        fuelStatus = findViewById(R.id.fuelStatus);
        btnSave = findViewById(R.id.btnSave);
        btnDel = findViewById(R.id.btnDel);
        stationLocation = findViewById(R.id.satloc);
        fuelService = ApiUtils.getFuelService();
    }
}
```

```

Bundle extras = getIntent().getExtras();
final String fuelId = extras.getString("fuel_id");
String shedPhone = extras.getString("shed_Phone");
String shed_Name = extras.getString("shed_name");
String fuel_Type = extras.getString("fuel_type");
String fuel_Status = extras.getString("fuel_status");
String sat_loc = extras.getString("station_location");

//edtfuelId.setText(fuelId);
if(fuelId != null){
    phoneNumber.setText(shedPhone);
}else{
    phoneNumber.setText(getIntent().getStringExtra("shedPhone"));
}

shedName.setText(shed_Name);
fuelType.setText(fuel_Type);
fuelStatus.setText(fuel_Status);
stationLocation.setText(sat_loc);

/**
 * onClick function to save
 */
btnSave.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Fuel f = new Fuel();
        // f.setId(edtfuelId.getText().toString());
        f.setShedPhoneNo(phoneNumber.getText().toString());
        f.setShedName(shedName.getText().toString());
        f.setFuelType(fuelType.getText().toString());
        f.setFuelStatus(fuelStatus.getText().toString());
        f.setShedLocation(stationLocation.getText().toString());

        if(fuelId != null && fuelId.trim().length()>0){
            updateFuelStatus(fuelId, f);
            Intent intent = new
Intent(getApplicationContext(),ShedOwnerHome.class);
            startActivity(intent);
        }else {
            addFuel(f);
            Intent intent = new
Intent(getApplicationContext(),ShedOwnerHome.class);
            startActivity(intent);
        }
    }
});

/**
 * onclick function delete
 */
btnDel.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        fuelDelete(fuelId);
    }
});

```

```

        Intent intent = new
Intent(getApplicationContext(), ShedOwnerHome.class);
        startActivity(intent);
    }
    });
}

/**
 *
 * Add Fuel Station
 */
public void addFuel(Fuel f){
    Call<Fuel> call = fuelService.addFuel(f);
    call.enqueue(new Callback<Fuel>() {
        @Override
        public void onResponse(Call<Fuel> call, Response<Fuel> response)
{
            if(response.isSuccessful()){
                Toast.makeText(FuelAdd.this, "Fuel Added successfully!",
Toast.LENGTH_SHORT).show();
            }
        }

        @Override
        public void onFailure(Call<Fuel> call, Throwable t) {
            Log.e("ERROR: ", t.getMessage());
        }
    });
}

/**
 *
 * Update Station details
 */
public void updateFuelStatus(String id, Fuel f){

    Call<Fuel> call = fuelService.updateFuel(id,f);
    call.enqueue(new Callback<Fuel>() {
        @Override
        public void onResponse(Call<Fuel> call, Response<Fuel> response)
{
            if(response.isSuccessful()){
                Toast.makeText(FuelAdd.this, "Fuel Updated
successfully!", Toast.LENGTH_SHORT).show();
            }
        }

        @Override
        public void onFailure(Call<Fuel> call, Throwable t) {
            Log.e("ERROR: ", t.getMessage());
        }
    });
}

/**
 *

```

```

        * Delete Station details
        */
    public void fuelDelete (String id){
        Call<Fuel> call = fuelService.deleteFuel(id);
        call.enqueue(new Callback<Fuel>() {
            @Override
            public void onResponse(Call<Fuel> call, Response<Fuel> response)
        {
            if(response.isSuccessful()){

                Toast.makeText(FuelAdd.this, "Fuel Deleted
                Successfully!", Toast.LENGTH_SHORT).show();
            }

            @Override
            public void onFailure(Call<Fuel> call, Throwable t) {

            }

        });
    }
}

```

Activity_fuel_add.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".FuelAdd">

    <!-- <TextView-->
    <!--     android:id="@+id/shedid1"-->
    <!--     android:layout_width="match_parent"-->
    <!--     android:layout_height="wrap_content"-->
    <!--     android:text="Shed Phone Number"-->
    <!--     android:textSize="20dp"-->
    <!--     android:layout_marginTop="5dp"-->
    <!--     />-->

```



```

<!-- <EditText-->
<!--     android:id="@+id/shedId"-->
<!--     android:layout_width="match_parent"-->
<!--     android:layout_height="wrap_content"-->
<!--     android:inputType="number"-->
<!-- />-->

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:paddingLeft="30dp"
    android:text="Gas Station Admin "
    android:textSize="40dp"
    android:textAlignment="center"
    android:layout_marginTop="5dp"
    android:paddingBottom="10dp"
    android:textStyle="bold"
    android:textColor="@color/purple_500"
    android:fontFamily="cursive"
/>

<TextView
    android:id="@+id/shedPhone1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:paddingLeft="30dp"
    android:text="Gas Station Phone Number"
    android:textSize="20dp"
    android:layout_marginTop="5dp"
    android:textColor="@color/black"
    android:fontFamily="monospace"
/>

<EditText
    android:id="@+id/shedPhone"
    android:layout_width="350dp"
    android:layout_height="45dp"
    android:inputType="number"
    android:background="@drawable/cardviewedittext"
    android:textSize="22dp"
    android:gravity="center"
    android:layout_marginStart="10dp"
/>

<TextView
    android:id="@+id/name1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Gas Station Name"
    android:textSize="20dp"
    android:textColor="@color/black"
    android:fontFamily="monospace"
    android:paddingLeft="30dp"
    android:layout_marginTop="5dp"
/>

<EditText

```

```

        android:id="@+id/name"
        android:layout_width="350dp"
        android:layout_height="45dp"
        android:background="@drawable/cardviewedittext"
        android:textSize="22dp"
        android:gravity="center"
        android:layout_marginStart="10dp"
    />

    <TextView
        android:id="@+id/fuelType1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Fuel Type"
        android:textSize="20dp"
        android:textColor="@color/black"
        android:fontFamily="monospace"
        android:paddingLeft="30dp"
        android:layout_marginTop="5dp"
    />

    <EditText
        android:id="@+id/fuelType"
        android:layout_width="350dp"
        android:layout_height="45dp"
        android:background="@drawable/cardviewedittext"
        android:textSize="22dp"
        android:gravity="center"
        android:layout_marginStart="10dp"

    />

    <TextView
        android:id="@+id/fuelStatus1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Fuel status"
        android:textSize="20dp"
        android:textColor="@color/black"
        android:fontFamily="monospace"
        android:paddingLeft="30dp"
        android:layout_marginTop="5dp"
    />

    <EditText
        android:id="@+id/fuelStatus"
        android:layout_width="350dp"
        android:layout_height="45dp"
        android:background="@drawable/cardviewedittext"
        android:textSize="22dp"
        android:gravity="center"
        android:layout_marginStart="10dp"
    />

    <TextView
        android:id="@+id/satloc1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

```

```

        android:text="Station Location"
        android:textSize="20dp"
        android:textColor="@color/black"
        android:fontFamily="monospace"
        android:paddingLeft="30dp"
        android:layout_marginTop="5dp"
    />

    <EditText
        android:id="@+id/satloc"
        android:layout_width="350dp"
        android:layout_height="45dp"
        android:background="@drawable/cardviewedittext"
        android:textSize="22dp"
        android:gravity="center"
        android:layout_marginStart="10dp"
        android:layout_marginBottom="30dp"
    />

    <Button
        android:id="@+id/btnSave"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Save"
        android:backgroundTint="@color/purple_200"
        android:background="@drawable/round_button"
        android:textColor="#ffffff"
        android:layout_marginBottom="5dp"
    />

    <Button
        android:id="@+id/btnDel"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Delete Station"
        android:textColor="#ffffff"
        android:backgroundTint="@color/round_gradient_button_start_color"
        android:background="@drawable/round_button"
    />

</LinearLayout>

```

FuelAdapter.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;

```

```

import android.widget.TextView;

import androidx.annotation.LayoutRes;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;

import com.example.fuelappead.model.Fuel;

import java.util.List;

public class FuelAdapter extends ArrayAdapter<Fuel> {

    private Context context;

    public FuelAdapter(@NonNull Context context, int resource, int
textViewResourceId, @NonNull List<Fuel> objects) {
        super(context, resource, textViewResourceId, objects);
    }

    private List<Fuel> fuels;

    public FuelAdapter(@NonNull Context context, @LayoutRes int resource,
@NonNull List<Fuel> objects) {
        super(context, resource, objects);
        this.context = context;
        this.fuels = objects;
    }

    @Override
    public View getView(final int pos, View convertView, ViewGroup parent) {
        LayoutInflater inflater = (LayoutInflater)
context.getSystemService(Context.LAYOUT_INFLATER_SERVICE);
        View rowView = inflater.inflate(R.layout.list_fuel, parent, false);

        // TextView txtShedId = rowView.findViewById(R.id.txtShedId);
        TextView txtShedPhone = rowView.findViewById(R.id.txtShedPhone);
        TextView txtShedName = rowView.findViewById(R.id.txtShedname);
        TextView txtFuelType = rowView.findViewById(R.id.txtFuelType);
        TextView txtFuelStatus = rowView.findViewById(R.id.txtFuelStatus);
        TextView txtStationLocation =
rowView.findViewById(R.id.txtStationLocation);

        // txtShedId.setText((String.format("Shed ID: %s",
fuels.get(pos).getId())));
        txtShedPhone.setText(String.format("Gas Station Phone: %s",
fuels.get(pos).getShedPhoneNo()));
        txtShedName.setText(String.format("Gas Station Name: %s",
fuels.get(pos).getShedName()));
        txtFuelType.setText(String.format("Fuel Type: %s",
fuels.get(pos).getFuelType()));
        txtFuelStatus.setText(String.format("Fuel Status: %s",
fuels.get(pos).getFuelStatus()));
        txtStationLocation.setText(String.format("Gas Station Location: %s",
fuels.get(pos).getShedLocation()));

        rowView.setOnClickListener(new View.OnClickListener() {
            @Override

```

```

        public void onClick(View view) {
            Intent intent = new Intent(context, FuelAdd.class);
            intent.putExtra("fuel_id",
String.valueOf(fuels.get(pos).getId()));
            intent.putExtra("shed_Phone",
String.valueOf(fuels.get(pos).getShedPhoneNo()));
            intent.putExtra("shed_name",
String.valueOf(fuels.get(pos).getShedName()));
            intent.putExtra("fuel_type",
String.valueOf(fuels.get(pos).getFuelType()));
            intent.putExtra("fuel_status",
String.valueOf(fuels.get(pos).getFuelStatus()));
            intent.putExtra("station_location",
String.valueOf((fuels.get(pos).getShedLocation())));
            context.startActivity(intent);
        }
    });

    return rowView;
}
}

```

List_fuel.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <androidx.cardview.widget.CardView
        android:layout_width="343dp"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="40dp"
        android:background="@drawable/cardviewedittext">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="24dp">
            <TextView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:padding="3dp"

```

```

        android:text="Gas Station Details"
        android:textAlignment="center"
        android:textColor="@color/purple_500"
        android:fontFamily="cursive"
        android:textSize="20dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtShedPhone"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtShedname"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtFuelType"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtFuelStatus"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />

        <TextView
            android:id="@+id/txtStationLocation"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:padding="3dp"
            android:textStyle="bold"
        />

    </LinearLayout>
</androidx.cardview.widget.CardView>
</LinearLayout>

```

SearchGasStation.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022

```

```

    */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.SearchView;
import android.widget.Toast;

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.remote.ApiUutils;
import com.example.fuelappead.remote.FuelService;

import java.util.ArrayList;
import java.util.List;

import retrofit2.Callback;
import retrofit2.Call;
import retrofit2.Response;

public class SearchGasStation extends AppCompatActivity {

    EditText locationTxt;
    Button searchlocBtn;
    ListView listView;
    FuelService fuelService;

    List<Fuel> list1 = new ArrayList<Fuel>();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_search_gas_station);

        listView = (ListView) findViewById(R.id.btnlistView);
        locationTxt = findViewById(R.id.textLocation);
        searchlocBtn = findViewById(R.id.btnSearchLocation);
        fuelService = ApiUutils.getFuelService();

        /**
         * onclick function to search nearest gas station
         */
        searchlocBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String lco = locationTxt.getText().toString();
                searchShedLocation(lco);
            }
        });
    }

    /**

```

```

    *
    * Search nearest gas station by location
    */
    public void searchShedLocation (String location){

        Call<List<Fuel>> call = fuelService.searchLocation(location);
        call.enqueue(new Callback<List<Fuel>>() {

            @Override
            public void onResponse(Call<List<Fuel>> call,
Response<List<Fuel>> response) {
                if(response.isSuccessful()){
                    list1 = response.body();
                    listView.setAdapter(new
UserSatationAdapter(SearchGasStation.this, R.layout.fuel_listuser, list1));
                    Toast.makeText(SearchGasStation.this, "fetched shedby
feowl successfully!", Toast.LENGTH_SHORT).show();
                }
            }

            @Override
            public void onFailure(Call<List<Fuel>> call, Throwable t) {
                Log.e("ERROR: ", t.getMessage());
            }
        });
    }
}

```

UserSatationAdapter.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.TextView;

import androidx.annotation.LayoutRes;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;

import com.example.fuelappead.model.Fuel;

import java.util.List;

public class UserSatationAdapter extends ArrayAdapter<Fuel> {

    private Context context;

    public UserSatationAdapter(@NonNull Context context, int resource, int

```



```

textViewResourceId, @NonNull List<Fuel> objects) {
    super(context, resource, textViewResourceId, objects);
}

    public UserSatationAdapter(@NonNull Context context, @LayoutRes int
resource, @NonNull List<Fuel> objects) {
    super(context, resource, objects);
    this.context = context;
    this.fuels = objects;
}

    private List<Fuel> fuels;

    @Override
    public View getView(final int pos, View convertView, ViewGroup parent) {
        LayoutInflater inflater = (LayoutInflater)
context.getSystemService(Context.LAYOUT_INFLATER_SERVICE);
        View rowView = inflater.inflate(R.layout.fuel_listuser, parent,
false);

        TextView txtShedId = rowView.findViewById(R.id.txtShedId);
        TextView txtShedPhone = rowView.findViewById(R.id.txtShedPhone);
        TextView txtShedName = rowView.findViewById(R.id.txtShedname);
        TextView txtFuelType = rowView.findViewById(R.id.txtFuelType);
        TextView txtFuelStatus = rowView.findViewById(R.id.txtFuelStatus);
        TextView txtLoaction = rowView.findViewById(R.id.txtStationLocation);

        // txtShedId.setText((String.format("Shed ID: %s",
fuels.get(pos).getId())));
        txtShedPhone.setText(String.format("Gas Station Phone: %s",
fuels.get(pos).getShedPhoneNo()));
        txtShedName.setText(String.format("Gas Station Name: %s",
fuels.get(pos).getShedName()));
        txtFuelType.setText(String.format("Fuel Type: %s",
fuels.get(pos).getFuelType()));
        txtFuelStatus.setText(String.format("Fuel Status: %s",
fuels.get(pos).getFuelStatus()));
        txtLoaction.setText(String.format("Gas Station Location: %s",
fuels.get(pos).getShedLocation()));

        rowView.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(context, CheckInQ.class);
                intent.putExtra("shed_phone",
String.valueOf(fuels.get(pos).getShedPhoneNo()));
                context.startActivity(intent);
            }
        });

        return rowView;
    }
}

```

Fuel_listuser.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <androidx.cardview.widget.CardView
        android:layout_width="343dp"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="40dp"
        android:background="@drawable/cardviewedittext">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="24dp">

            <TextView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:padding="3dp"
                android:text="Gas Station Details"
                android:textAlignment="center"
                android:textColor="@color/purple_500"
                android:fontFamily="cursive"
                android:textSize="35dp"
                android:textStyle="bold"
                android:layout_marginBottom="10dp"
            />

            <TextView
                android:id="@+id/txtFuelStatus"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:textAlignment="center"
                android:textColor="@color/purple_700"
                android:padding="3dp"
                android:textSize="20dp"
                android:textStyle="bold"
            />

            <TextView
                android:id="@+id/txtShedId"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:padding="3dp"
                android:textStyle="bold"
            />

            <TextView
                android:id="@+id/txtShedPhone"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"

```

```

        android:padding="3dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtShedname"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtFuelType"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />

    <TextView
        android:id="@+id/txtStationLocation"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
        android:textStyle="bold"
    />
</LinearLayout>
</androidx.cardview.widget.CardView>
</LinearLayout>

```

DBHelper.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead.DBHelper;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class DBHelper extends SQLiteOpenHelper {

    public static final String DBNAME = "fuelapp.db";

    public DBHelper(Context context) {
        super(context, "fuelapp.db", null, 1);
    }
}

```

```

/**
 *
 * create table users
 */
@Override
public void onCreate(SQLiteDatabase sqLiteDatabase) {
    sqLiteDatabase.execSQL("create table users(username TEXT, phonenumber
TEXT primary key, role TEXT, password TEXT)");
}

@Override
public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {
    sqLiteDatabase.execSQL("drop table if exists users");
}

/**
 *User Registration to DB
 */
public Boolean RegisterUser(String username, String phonenumber,String
role, String password) {
    SQLiteDatabase db = this.getReadableDatabase();
    ContentValues values = new ContentValues();

    values.put("username", username);
    values.put("phonenumber", phonenumber);
    values.put("role", role);
    values.put("password", password);

    long result = db.insert("users", null, values);
    if(result==-1)
        return false;
    else
        return true;
}

/**
 *
 * Username validation
 */
public Boolean usernameCheck(String username){
    SQLiteDatabase db = this.getWritableDatabase();
    Cursor cursor = db.rawQuery("select * from users where username=?",
new String[] {username});

    if(cursor.getCount() > 0)
        return true;
    else
        return false;
}

/**
 * login check
 */
public Boolean usernamepassCheck(String username, String password){
    SQLiteDatabase db = this.getWritableDatabase();

```

```

        Cursor cursor = db.rawQuery("select * from users where phonenumber=?
and password=?", new String[] {username,password});

        if (cursor.getCount() > 0)
            return true;
        else
            return false;
    }

    /**
     * User role check
     */
    public Boolean userRoleCheck(String username, String password){
        SQLiteDatabase db = this.getWritableDatabase();
        Cursor cursor = db.rawQuery("select * from users where phonenumber=?
and password=? and role='Shed Owner'", new String[] {username,password});

        if (cursor.getCount() > 0)
            return true;
        else
            return false;
    }
}

```

Fuel.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead.model;

import com.google.gson.annotations.Expose;
import com.google.gson.annotations.SerializedName;

public class Fuel {

    @SerializedName("_id")
    @Expose
    private String id;

    @SerializedName("shedPhoneNo")
    @Expose
    private String shedPhoneNo;

    @SerializedName("shedName")
    @Expose
    private String shedName;

    @SerializedName("fuelType")
    @Expose
    private String fuelType;

    @SerializedName("fuelStatus")
    @Expose

```

```
private String fuelStatus;

@SerializedName("shedLocation")
@Expose
private String shedLocation;

public Fuel() {
}

public Fuel(String id, String shedPhoneNo, String shedName, String
fuelType, String fuelStatus, String shedLocation) {
    this.id = id;
    this.shedPhoneNo = shedPhoneNo;
    this.shedName = shedName;
    this.fuelType = fuelType;
    this.fuelStatus = fuelStatus;
    this.shedLocation = shedLocation;
}

public String getId() {
    return id;
}

public void setId(String id) {
    this.id = id;
}

public String getShedPhoneNo() {
    return shedPhoneNo;
}

public void setShedPhoneNo(String shedPhoneNo) {
    this.shedPhoneNo = shedPhoneNo;
}

public String getShedName() {
    return shedName;
}

public void setShedName(String shedName) {
    this.shedName = shedName;
}

public String getFuelType() {
    return fuelType;
}

public void setFuelType(String fuelType) {
    this.fuelType = fuelType;
}

public String getFuelStatus() {
    return fuelStatus;
}

public void setFuelStatus(String fuelStatus) {
    this.fuelStatus = fuelStatus;
}
```

```

    }

    public String getShedLocation() {
        return shedLocation;
    }

    public void setShedLocation(String shedLocation) {
        this.shedLocation = shedLocation;
    }
}

```

FuelService.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead.remote;

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.model.User;

import java.util.List;

import retrofit2.Call;
import retrofit2.http.Body;
import retrofit2.http.DELETE;
import retrofit2.http.GET;
import retrofit2.http.POST;
import retrofit2.http.PUT;
import retrofit2.http.Path;

/**
 * Reference
 * https://www.jackrutorial.com/2018/06/retrofit-2-crud-android-example.html
 * https://square.github.io/retrofit/
 */
public interface FuelService {

    @GET("fuel/allFuel/")
    Call<List<Fuel>> getFuel();

    @POST("fuel/createFuel/")
    Call<Fuel> addFuel(@Body Fuel fuel);

    @GET("fuel/shed/{phone}")
    Call<List<Fuel>> getFuelByShed(@Path("phone") String phone);

    @PUT("fuel/update/{id}")
    Call<Fuel> updateFuel(@Path("id") String id, @Body Fuel fuel);

    @DELETE("fuel/delete/{id}")
    Call<Fuel> deleteFuel(@Path("id") String id);
}

```

```

    @GET("fuel/location/{location}")
    Call<List<Fuel>> searchLocation(@Path("location") String location);

//    @POST("user/createOrder/")
//    Call<User> QcheckIn(@Body User user);
}

```

Backend

fuelModel.js

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
import mongoose from "mongoose";

// creating a fuel model by adding fields

const fuelSchema = mongoose.Schema({
  id: {
    type: String,
  },
  shedPhoneNo: {
    type: String,
    required: true
  },
  shedName: {
    type: String,
    required: true
  },
  fuelType: {
    type: String,
    required: true
  },
  fuelStatus: {
    type: String,

```



```

      required: true
    },
    shedLocation: {
      type: String,
      required: false
    }
  }, {
    timestamp: true
  })

const Fuel = mongoose.model('Fuel', fuelSchema);

export default Fuel

```

fuelCntrroller.js

```

import asyncHandler from 'express-async-handler';
import Fuel from '../models/fuelModel.js';

//create a new fuel shed

const createFuel = asyncHandler(async (req, res) => {
  const {
    shedPhoneNo,
    shedName,
    fuelType,
    fuelStatus,
    shedLocation
  } = req.body

  const fuel = new Fuel({
    shedPhoneNo,
    shedName,
    fuelType,

```

```

        fuelStatus,
        shedLocation
    })

    try{
        await fuel.save();
        if(fuel){
            res.status(201).json({
                _id: fuel.id,
                shedPhoneNo: fuel.shedPhoneNo,
                shedName: fuel.shedName,
                fuelType: fuel.fuelType,
                fuelStatus: fuel.fuelStatus,
                shedLocation: fuel.shedLocation
            })
        }
    }catch(error){
        return res.status(400).json({message: "Invalid fuel data"});
    }
})

// get all fuel data

const getFuel = asyncHandler(async(req,res) => {
    const fuel = await Fuel.find({})
    res.json(fuel)
})

// get specific fuel data by passing ID

const getFuelByShed = asyncHandler(async(req,res) => {

    const findPhone = req.params.number;
    const fuel = await Fuel.find({shedPhoneNo:findPhone})

```

```

    if(fuel){
      res.json(fuel)
    }else{
      res.status(404)
      throw new Error("Fuel not found")
    }
  })

//update fuel data by passing ID

const updateFuelStatus = asyncHandler(async(req,res) => {
  const {shedPhoneNo, shedName, fuelStatus, fuelType, shedLocation } = req.body

  const fuel = await Fuel.findById(req.params.id)

  if (fuel) {
    fuel.shedPhoneNo = shedPhoneNo,
    fuel.shedName = shedName,
    fuel.fuelType = fuelType,
    fuel.fuelStatus = fuelStatus
    fuel.shedLocation = shedLocation

    const updateFuelStatus = await fuel.save()
    res.json(updateFuelStatus)
  } else {
    res.status(404)
    throw new Error("Room Not Found")
  }
})

//delete fuel data by passing ID

const deleteFuel = asyncHandler(async (req, res) => {
  const fuel = await Fuel.findById(req.params.id)

  if(fuel){

```

```

        await fuel.remove();
        res.json({message: 'Fuel Deleted'});
    }else{
        res.status(404);
        throw new Error('Fuel deleted!')
    }
})

// search fuel data by inserting location

const searchShed = asyncHandler(async(req,res) => {

    const findlocation = req.params.location;
    const fuel = await Fuel.find({shedLocation:findlocation})

    if(fuel){
        res.json(fuel)
    }else{
        res.status(404)
        throw new Error("Fuel not found")
    }
})

export {createFuel,getFuel, getFuelByShed, updateFuelStatus, deleteFuel, searchShed}

```

fuelRoutes.js

```

import express from "express";

const router = express.Router()

import { createFuel, deleteFuel, getFuel, getFuelByShed, searchShed, updateFuelStatus } from
"./controllers/fuelController.js";

//create api routes

```

```

router.post('/createFuel', createFuel);
router.get('/allFuel', getFuel);
router.get('/shed/:number', getFuelByShed);
router.get('/location/:location', searchShed);
router.put('/update/:id', updateFuelStatus);
router.delete('/delete/:id', deleteFuel);

export default router;

```

5.2 IT19214580 – S M Bulner

UserHome.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

public class UserHome extends AppCompatActivity {

    private TextView name;
    private Button searchBtn;
    // private Button btnQ;
    private Button btnchckOut;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_user_home);

        name = findViewById(R.id.name);
        searchBtn = findViewById(R.id.btnSearch);
        btnchckOut = findViewById(R.id.btncheckout);
        String username = getIntent().getStringExtra("username");

        name.setText(username);
    }

    /**
     * onClick function to search page
     */
}

```

```

        searchBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new
Intent(getApplicationContext(), SearchGasStation.class);
                startActivity(intent);
            }
        });

/**
 * Onclick function to exit from queue page
 */
        btnchckOut.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(getApplicationContext(),
CheckoutQ.class);
                startActivity(intent);
            }
        });
    }
}

```

Activity_user_home.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".UserHome">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/name"
        android:text="Name"
        android:textSize="34dp"
        android:textColor="@color/black"/>

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingLeft="30dp"
        android:text="Welcome to FEQ "
        android:textSize="50dp"
        android:textAlignment="center"
        android:layout_marginTop="5dp"
        android:paddingBottom="10dp"
        android:textStyle="bold"
        android:textColor="@color/purple_500"
        android:fontFamily="cursive"
        />

```

```

<ImageView
    android:id="@+id/imageView"
    android:layout_width="match_parent"
    android:layout_height="400dp"
    android:src="@drawable/f1"
/>

<Button
    android:id="@+id/btnSearch"
    android:layout_width="match_parent"
    android:layout_height="45dp"
    android:layout_marginBottom="10dp"
    android:text="Search For Nearest Gas Station"
    android:textColor="@color/white"
    android:textSize="20dp"
    android:backgroundTint="@color/purple_200"
    android:background="@drawable/round_button"
/>
<!-- <Button-->
<!--     android:id="@+id/btnInq"-->
<!--     android:layout_width="match_parent"-->
<!--     android:layout_height="45dp"-->
<!--     android:layout_marginBottom="10dp"-->
<!--     android:text="Check in Q"-->
<!--     android:textColor="@color/white"-->
<!--     android:textSize="20dp"-->
<!--     android:backgroundTint="@color/purple_200"-->
<!--     android:background="@drawable/round_button"-->
<!--     />-->

<Button
    android:id="@+id/btncheckout"
    android:layout_width="match_parent"
    android:layout_height="45dp"
    android:layout_marginBottom="10dp"
    android:text="Exit From Queue"
    android:textColor="@color/white"
    android:textSize="20dp"
    android:backgroundTint="@color/purple_200"
    android:background="@drawable/round_button"
/>
<Button
    android:id="@+id/logout"
    android:layout_width="match_parent"
    android:layout_height="45dp"
    android:layout_marginBottom="10dp"
    android:text="Log Out"
    android:textColor="@color/white"
    android:textSize="20dp"
    android:backgroundTint="@color/purple_200"
    android:background="@drawable/round_button"
/>

</LinearLayout>

```

CheckInQ.java

```
/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import com.example.fuelappead.model.Que;
import com.example.fuelappead.model.User;
import com.example.fuelappead.remote.ApiUutils;
import com.example.fuelappead.remote.UserService;

import java.util.ArrayList;
import java.util.List;

import retrofit2.Call;
import retrofit2.Callback;
import retrofit2.Response;

public class CheckInQ extends AppCompatActivity {

    UserService userService;
    EditText edtShedPhone;
    EditText edtUseranme;
    EditText edtUserPhone;
    EditText edtvehType;
    TextView vehCount;
    TextView queTime;
    ListView listView;

    Button btnAddUser;
    Button btncheckout;
    Button btncheckout2;

    List<Que> list = new ArrayList<Que>();

    public int size;
    @Override
```



```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_check_in_q);

    edtShedPhone = findViewById(R.id.satPhone);
    edtUseranme = findViewById(R.id.edtuserName);
    edtUserPhone = findViewById(R.id.userPhone);
    edtvehType = findViewById(R.id.vehType);
    vehCount = findViewById(R.id.countcar);
    queTime = findViewById(R.id.timeq);
    btnAddUser = findViewById(R.id.btnSaveq);
    btncheckout = findViewById(R.id.btncheckout1);
    btncheckout2 = findViewById(R.id.btncheckout2);
    listView = (ListView) findViewById(R.id.listView);

    userService = ApiUutils.getUserService();

    Bundle extras = getIntent().getExtras();
    final String user_id = extras.getString("user_id");
    String shed_phone = extras.getString("shed_user_phone");
    String user_name = extras.getString("user_name");
    String user_phone = extras.getString("user_phone");
    String veh_type = extras.getString("veh_type");

    edtShedPhone.setText(shed_phone);
    edtUseranme.setText(user_name);
    if(user_id != null){
        edtUserPhone.setText(user_phone);
    }else{
        edtShedPhone.setText(getIntent().getStringExtra("shed_phone"));
    }
    edtvehType.setText(veh_type);
    queCount(getIntent().getStringExtra("shed_phone"));

    btnAddUser.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            User u = new User();
            u.setShedPhoneNo(edtShedPhone.getText().toString());
            u.setUserName(edtUseranme.getText().toString());
            u.setUserPhoneNo(edtUserPhone.getText().toString());
            u.setVehicleType(edtvehType.getText().toString());

            if(user_id != null && user_id.trim().length() > 0){
                updateCheckoutStatus(user_id, u);
                Intent intent = new Intent(getApplicationContext(),
UserHome.class);
                startActivity(intent);
            }else {
                loginheck(u);
                Intent intent = new Intent(getApplicationContext(),
UserHome.class);
                startActivity(intent);
            }
        }
    });
}

```

```

        btncheckout.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                userCheckout(user_id);
            }
        });
        btncheckout2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                userCheckout(user_id);
            }
        });
    }

    /**
     *
     * User Check in to the queue function
     */
    public void loginheck(User u){
        Call<User> call = userService.QcheckIn1(u);
        call.enqueue(new Callback<User>() {
            @Override
            public void onResponse(Call<User> call, Response<User> response)
{
                if(response.isSuccessful()){
                    Toast.makeText(CheckInQ.this, "User Enter In
successfully!", Toast.LENGTH_SHORT).show();
                }

                @Override
                public void onFailure(Call<User> call, Throwable t) {
                    Log.e("ERROR: ", t.getMessage());
                }
            });
        }

    /**
     *
     * User exit from the queue function
     */
    public void userCheckout (String id){
        Call<User> call = userService.userCheckout(id);
        call.enqueue(new Callback<User>() {
            @Override
            public void onResponse(Call<User> call, Response<User> response)
{
                if(response.isSuccessful()){
                    Toast.makeText(CheckInQ.this, "User exit successfully!",
Toast.LENGTH_SHORT).show();
                }

                }

                @Override

```

```

        public void onFailure(Call<User> call, Throwable t) {

        }

    });
}

/**
 *
 * Update user
 */
public void updateCheckoutStatus(String id, User u){

    Call<User> call = userService.updateUser(id,u);
    call.enqueue(new Callback<User>() {
        @Override
        public void onResponse(Call<User> call, Response<User> response)
{
            if(response.isSuccessful()){
                Toast.makeText(CheckInQ.this, "Updated successfully!",
Toast.LENGTH_SHORT).show();
            }
        }

        @Override
        public void onFailure(Call<User> call, Throwable t) {
            Log.e("ERROR: ", t.getMessage());
        }
    });
}

/**
 *
 * Get the queue count
 */
public void queCount (String phone){

    Call<List<Que>> call = userService.queCount(phone);
    call.enqueue(new Callback<List<Que>>() {

        @Override
        public void onResponse(Call<List<Que>> call, Response<List<Que>>
response) {
            if(response.isSuccessful()){
                list = response.body();
                size = list.size();
                System.out.println(size * 5);
                vehCount.setText(String.format("Vehicles In The Queue:
%s",String.valueOf(size)));
                queTime.setText(String.format("Waiting Time: %s min",
String.valueOf(size* 5)));
                Toast.makeText(CheckInQ.this, "fetched successfully!",
Toast.LENGTH_SHORT).show();
            }
        }

        @Override
        public void onFailure(Call<List<Que>> call, Throwable t) {

```

```

        Log.e("ERROR: ", t.getMessage());
    }
    });
}
}

```

Activity_check_in_q.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".CheckInQ">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingLeft="30dp"
        android:text="Join To The Fuel Queue "
        android:textSize="40dp"
        android:textAlignment="center"
        android:layout_marginTop="15dp"
        android:paddingBottom="10dp"
        android:textStyle="bold"
        android:textColor="@color/purple_500"
        android:fontFamily="cursive"
    />

    <androidx.cardview.widget.CardView
        android:layout_width="379dp"
        android:layout_height="wrap_content"
        android:layout_margin="8dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="40dp"
        android:background="@drawable/cardviewedittext">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="24dp">

            <TextView
                android:id="@+id/countcar"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Shed Phone Number"
                android:textSize="30dp"
                android:textColor="@color/purple_200"
                android:layout_marginTop="5dp"
            />

```

```

        <TextView
            android:id="@+id/timeq"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Shed Phone Number"
            android:textSize="30dp"
            android:textColor="@color/purple_200"
            android:layout_marginTop="5dp"
        />
    </LinearLayout>
</androidx.cardview.widget.CardView>

<TextView
    android:id="@+id/shedPhone1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Gas Station Phone Number"
    android:textSize="20dp"
    android:paddingLeft="30dp"
    android:textColor="@color/black"
    android:fontFamily="monospace"
    android:layout_marginTop="5dp"
/>

<EditText
    android:id="@+id/satPhone"
    android:layout_width="350dp"
    android:layout_height="45dp"
    android:background="@drawable/cardviewedittext"
    android:textSize="22dp"
    android:gravity="center"
    android:layout_marginStart="10dp"
    android:inputType="number"
/>

<TextView
    android:id="@+id/name1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="User name"
    android:textSize="20dp"
    android:paddingLeft="30dp"
    android:textColor="@color/black"
    android:fontFamily="monospace"
    android:layout_marginTop="5dp"
/>

<EditText
    android:id="@+id/edtuserName"
    android:layout_width="350dp"
    android:layout_height="45dp"
    android:background="@drawable/cardviewedittext"
    android:textSize="22dp"
    android:gravity="center"
    android:layout_marginStart="10dp"
/>

```

```

<TextView
    android:id="@+id/fuelType1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="User Phone"
    android:textSize="20dp"
    android:paddingLeft="30dp"
    android:textColor="@color/black"
    android:fontFamily="monospace"
    android:layout_marginTop="5dp"
/>

<EditText
    android:id="@+id/userPhone"
    android:layout_width="350dp"
    android:layout_height="45dp"
    android:background="@drawable/cardviewedittext"
    android:textSize="22dp"
    android:gravity="center"
    android:layout_marginStart="10dp"
/>

<TextView
    android:id="@+id/fuelStatus1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Vehicle type"
    android:textSize="20dp"
    android:paddingLeft="30dp"
    android:textColor="@color/black"
    android:fontFamily="monospace"
    android:layout_marginTop="5dp"
/>

<EditText
    android:id="@+id/vehetype"
    android:layout_width="350dp"
    android:layout_height="45dp"
    android:background="@drawable/cardviewedittext"
    android:textSize="22dp"
    android:gravity="center"
    android:layout_marginStart="10dp"
    android:layout_marginBottom="30dp"
/>

<Button
    android:id="@+id/btnSaveq"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Save"
    android:backgroundTint="@color/purple_200"
    android:background="@drawable/round_button"
    android:textColor="#ffffff"
    android:layout_marginBottom="5dp"
/>

<Button

```

```

        android:id="@+id/btncheckout1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Exit From Queue"
        android:backgroundTint="@color/round_gradient_button_start_color"
        android:background="@drawable/round_button"
        android:textColor="#ffffff"
        android:layout_marginBottom="5dp"
    />

    <Button
        android:id="@+id/btncheckout2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Exit before pumping fuel"
        android:backgroundTint="@color/round_gradient_button_start_color"
        android:background="@drawable/round_button"
        android:textColor="#ffffff"
        android:layout_marginBottom="5dp"
    />

</LinearLayout>

```

CheckoutQ.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.ListView;
import android.widget.Toast;

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.model.User;
import com.example.fuelappead.remote.ApiUutils;
import com.example.fuelappead.remote.UserService;

import java.util.ArrayList;
import java.util.List;

import retrofit2.Call;
import retrofit2.Callback;
import retrofit2.Response;

public class CheckoutQ extends AppCompatActivity {

```

```

ListView listView1;
Button btnuser;

UserService userService;
List<User> list3 = new ArrayList<User>();

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_checkout_q);

    listView1 = findViewById(R.id.listView2);

    userService = ApiUtils.getUserService();

    getUser();

}

/**
 * Get user check In details
 */
public void getUser(){
    Call<List<User>> call = userService.getUsers();
    call.enqueue(new Callback<List<User>>() {

        @Override
        public void onResponse(Call<List<User>> call,
Response<List<User>> response) {
            if(response.isSuccessful()){
                list3 = response.body();
                listView1.setAdapter(new UserAdapter(CheckoutQ.this,
R.layout.list_users, list3));
                Toast.makeText(CheckoutQ.this, "fetched successfully!",
Toast.LENGTH_SHORT).show();
            }
        }

        @Override
        public void onFailure(Call<List<User>> call, Throwable t) {
            Log.e("ERROR:", t.getMessage());
        }
    }) ;
}
}

```


Activity_check_q.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".CheckoutQ">
    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:paddingLeft="30dp"
        android:text="Exit From The Fuel Queue "
        android:textSize="40dp"
        android:textAlignment="center"
        android:layout_marginTop="15dp"
        android:paddingBottom="10dp"
        android:textStyle="bold"
        android:textColor="@color/purple_500"
        android:fontFamily="cursive"
    />
    <ListView
        android:id="@+id/listView2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

    </ListView>
</LinearLayout>
```

userAdapter.java

```
/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import android.content.Context;
import android.content.Intent;
import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.ArrayAdapter;
import android.widget.TextView;

import androidx.annotation.LayoutRes;
import androidx.annotation.NonNull;
import androidx.annotation.Nullable;
```

```

import com.example.fuelappead.model.Fuel;
import com.example.fuelappead.model.User;

import java.util.List;

public class UserAdapter extends ArrayAdapter<User> {
    private Context context;

    public UserAdapter(@NonNull Context context, int resource, int
textViewResourceId, @NonNull List<User> objects) {
        super(context, resource, textViewResourceId, objects);
    }

    private List<User> users;

    public UserAdapter(@NonNull Context context, @LayoutRes int resource,
@NonNull List<User> objects) {
        super(context, resource, objects);
        this.context = context;
        this.users = objects;
    }

    @NonNull
    @Override
    public View getView(int pos, @Nullable View convertView, @NonNull
ViewGroup parent) {
        LayoutInflater inflater = (LayoutInflater)
context.getSystemService(Context.LAYOUT_INFLATER_SERVICE);
        View rowView = inflater.inflate(R.layout.list_users, parent, false);

        TextView txtsehdId = rowView.findViewById(R.id.txtuserId);
        TextView txtShedPhone = rowView.findViewById(R.id.txtShedUserPhone);
        TextView txtUsername = rowView.findViewById(R.id.txtuserName);
        TextView txtUserPhone = rowView.findViewById(R.id.txtuserPhone);
        TextView txtVehType = rowView.findViewById(R.id.txtvehType);

        txtShedPhone.setText(String.format("Gas Station Phone Number: %s",
users.get(pos).getShedPhoneNo()));
        txtUsername.setText(String.format("User name: %s",
users.get(pos).getUserName()));
        txtUserPhone.setText(String.format("User Phone: %s",
users.get(pos).getUserPhoneNo()));
        txtVehType.setText(String.format("Vehicle Type: %s",
users.get(pos).getVehicleType()));

        rowView.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(context, CheckInQ.class);

                intent.putExtra("user_id",
String.valueOf(users.get(pos).getId()));
                intent.putExtra("shed_user_phone",
String.valueOf(users.get(pos).getShedPhoneNo()));
                intent.putExtra("user_name",
String.valueOf(users.get(pos).getUserName()));
            }
        });
    }
}

```

```

        intent.putExtra("user_phone",
String.valueOf(users.get(pos).getUserPhoneNo()));
        intent.putExtra("veh_type",
String.valueOf(users.get(pos).getVehicleType()));
        context.startActivity(intent);
    }
});
return rowView;
}
}

```

List_users.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <androidx.cardview.widget.CardView
        android:layout_width="343dp"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="40dp"
        android:background="@drawable/cardviewedittext">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="24dp">
            <TextView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:padding="3dp"
                android:text="User Details"
                android:textAlignment="center"
                android:textColor="@color/purple_500"
                android:fontFamily="cursive"
                android:textSize="20dp"
                android:textStyle="bold"
            />
            <TextView
                android:id="@+id/txtuserId"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:padding="3dp"
            />

            <TextView

```

```

        android:id="@+id/txtShedUserPhone"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
    />

    <TextView
        android:id="@+id/txtuserName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
    />

    <TextView
        android:id="@+id/txtuserPhone"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
    />

    <TextView
        android:id="@+id/txtvehType"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:padding="3dp"
    />
</LinearLayout>
</androidx.cardview.widget.CardView>
</LinearLayout>

```

Register.java

```

/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */
package com.example.fuelappead;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.Toast;

import com.example.fuelappead.DBHelper.DBHelper;

```



```

//                                     }else {
//                                     Intent intent = new
Intent(getApplicationContext(), Login.class);
//                                     intent.putExtra("username", role);
//                                     startActivity(intent);
//                                     }
Intent intent = new
Intent(getApplicationContext(), Login.class);
                                     intent.putExtra("username", role);
                                     startActivity(intent);

                                     }else{
                                     Toast.makeText(Register.this, "Registration
Failed", Toast.LENGTH_SHORT).show();
                                     }
                                     }else {
                                     Toast.makeText(Register.this, "User already
exists", Toast.LENGTH_SHORT).show();
                                     }
                                     }else {
                                     Toast.makeText(Register.this, "Passwords are not
matching", Toast.LENGTH_SHORT).show();
                                     }
                                     }
                                     }
    });

    signin.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new
Intent(getApplicationContext(), Login.class);
            startActivity(intent);
        }
    });

}

/**
 * Dropdown function for select user type
 */
public static class Listener_Of_Selecting_Room_Spinner implements
AdapterView.OnItemSelectedListener
{
    static String Usertype;

    public void onItemSelected(AdapterView<?> parent, View view, int
pos,long id)
    {
        // By using this you can get the position of item which you
        // have selected from the dropdown

        Usertype = (parent.getItemAtPosition(pos)).toString();
    }

    public void onNothingSelected(AdapterView<?> parent)

```

```

        {
            // Do nothing.
        }
    };
}

```

Activity_register.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="10dp"
    android:orientation="vertical"
    android:background="#F6C2F4"
    tools:context=".Register">
    <androidx.cardview.widget.CardView
        android:layout_width="350dp"
        android:layout_height="wrap_content"
        android:layout_margin="13dp"
        app:cardCornerRadius="30dp"
        app:cardElevation="40dp"
        android:background="@drawable/cardviewedittext">
        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_gravity="center_horizontal"
            android:orientation="vertical"
            android:padding="24dp">
            <TextView
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:text="Sign Up"
                android:textColor="@color/black"
                android:textSize="50dp"
                android:textStyle="bold"
                android:layout_gravity="center_horizontal"
                android:layout_margin="40dp"
                android:layout_marginBottom="50dp"/>
            <EditText
                android:layout_width="match_parent"
                android:layout_height="50dp"
                android:id="@+id/username"
                android:hint="Username"
                android:textSize="22dp"
                android:textColorHint="@color/black"
                android:background="@drawable/backgroundedittext"
                android:layout_marginBottom="30dp"
                android:paddingLeft="20dp"/>
            <EditText
                android:layout_width="match_parent"
                android:layout_height="50dp"
                android:id="@+id/phoneno"

```

```

        android:hint="Phone Number"
        android:textSize="22dp"
        android:textColorHint="@color/black"
        android:background="@drawable/backgroundedittext"
        android:layout_marginBottom="30dp"
        android:paddingLeft="20dp"/>
    <Spinner
        android:id="@+id/spinner1"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:background="@drawable/backgroundedittext"
        android:layout_marginBottom="25dp"
        android:textColorHint="@color/black"
        android:spinnerMode="dropdown"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:id="@+id/password"
        android:hint="Password"
        android:textSize="22dp"
        android:textColorHint="@color/black"
        android:background="@drawable/backgroundedittext"
        android:layout_marginBottom="30dp"
        android:paddingLeft="20dp"/>
    <EditText
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:id="@+id/confirmpassword"
        android:hint="Confirm Password"
        android:textSize="22dp"
        android:textColorHint="@color/black"
        android:background="@drawable/backgroundedittext"
        android:layout_marginBottom="30dp"
        android:paddingLeft="20dp"/>

    <Button
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:id="@+id/signup"
        android:text="Sign Up"
        android:backgroundTint="@color/black"
        android:textColor="@color/white"
        android:layout_marginBottom="10dp"/>

    <Button
        android:layout_width="match_parent"
        android:layout_height="60dp"
        android:id="@+id/signin"
        android:text="Already Have an Account"
        android:textStyle="bold"
        android:backgroundTint="#DFCDF1"
        android:layout_marginBottom="20dp"/>
    </LinearLayout>
</androidx.cardview.widget.CardView>
</LinearLayout>

```


Backend

UserController.js

```
import asyncHandler from 'express-async-handler';
import User from '../models/userModel.js';

//create new user details

const createUser = asyncHandler(async (req, res) => {
  const {
    shedPhoneNo,
    userName,
    userPhoneNo,
    vehicleType
  } = req.body

  const user = new User({
    shedPhoneNo,
    userName,
    userPhoneNo,
    vehicleType
  })

  try {
    await user.save();
    if (user) {
      res.status(201).json({
        _id: user.id,
        shedPhoneNo: user.shedPhoneNo,
        userName: user.userName,
        userPhoneNo: user.userPhoneNo,
        vehicleType: user.vehicleType
      })
    }
  } catch (error) {
    return res.status(400).json({ message: "Invalid user data" });
  }
});
```

```

    }
  })

  // get all user orders

  const getUser = asyncHandler(async (req, res) => {
    const user = await User.find({})
    res.json(user)
  })

  //update user order details by passing ID

  const updateUserStatus = asyncHandler(async (req, res) => {
    const { shedPhoneNo,
      userName,
      userPhoneNo,
      vehicleType } = req.body

    const user = await User.findById(req.params.id)

    if (user) {
      user.shedPhoneNo = shedPhoneNo,
      user.userName = userName,
      user.userPhoneNo = userPhoneNo,
      user.vehicleType = vehicleType

      const updateUserStatus = await user.save()
      res.json(updateUserStatus)
    } else {
      res.status(404)
      throw new Error("user Not Found")
    }
  })

  //delete user order details by passing specific user ID

  const deleteUser = asyncHandler(async (req, res) => {

```

```
const user = await User.findById(req.params.id)

if (user) {
  await user.remove();
  res.json({ message: 'user Deleted' });
} else {
  res.status(404);
  throw new Error('user deleted!')
}
})

//calculate the queue count

const userCount = asyncHandler(async(req,res) => {

  const findphone = req.params.phone;
  const user = await User.find({shedPhoneNo:findphone})

  if(user){
    res.json(user)

  }else{
    res.status(404)
    throw new Error("user not found")
  }
})

const userDetails = asyncHandler(async(req,res) => {

  const findphone = req.params.phone;
  const user = await User.find({userPhoneNo:findphone})

  if(user){
    res.json(user)
```

```
    }else{
      res.status(404)
      throw new Error("user not found")
    }
  })

export { createUser, getUser, updateUserStatus, deleteUser, userCount, userDetails }
```

UserModel.js

```
/**
 * IT19123950 Madusanka G.A.P
 * IT19214580 S.M Bulner
 * 26/10/2022
 */

import mongoose from "mongoose";
```

```
// creating a user model by adding fields

const userSchema = mongoose.Schema({
  id:{
    type:String,
  },
  shedPhoneNo: {
    type: String,
    required: true
  },
  userName: {
    type: String,
    required: true
  },
  userPhoneNo: {
    type: String,
    required: true
  },
  vehicleType: {
    type: String,
    required: true
  }
},{
  timestamp: true
})

const User = mongoose.model('User', userSchema);

export default User
```

userRoutes.js

```
import express from "express";
```

```
const router = express.Router()

import { createUser, getUser, updateUserStatus, deleteUser, userCount, userDetails } from
'../controllers/userController.js'

//create api routes

router.post('/createOrder', createUser);
router.get('/allOrders', getUser);
router.put('/update/:id', updateUserStatus);
router.delete('/delete/:id', deleteUser);
router.get('/vehicleCount/:phone', userCount);
router.get('/details/:phone', userDetails);

export default router;
```

Reference

<https://www.jackrutorial.com/2018/06/retrofit-2-crud-android-example.html>

<https://square.github.io/retrofit/>