**Develop an application that receives the following input mentioned in the Figure below and Update the details in the SQLite database**

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout xmlns:android="<http://schemas.android.com/apk/res/android>" xmlns:tools="<http://schemas.android.com/tools>" android:layout\_width="match\_parent"

android:layout\_height="match\_parent" tools:context=".MainActivity">

<EditText android:id="@+id/etFirstName" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="First Name" android:layout\_margin="16dp"/>

<EditText android:id="@+id/etLastName" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="Last Name"

android:layout\_below="@id/etFirstName" android:layout\_margin="16dp"/>

<EditText android:id="@+id/etDateOfBirth" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="Date of Birth"

android:layout\_below="@id/etLastName" android:layout\_margin="16dp"/>

<Spinner android:id="@+id/spinnerLocation" android:layout\_width="match\_parent" android:layout\_height="wrap\_content"

android:layout\_below="@id/etDateOfBirth"

android:layout\_margin="16dp"/>

<RadioGroup android:id="@+id/radioGroupDiet" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:layout\_below="@id/spinnerLocation" android:layout\_margin="16dp">

<RadioButton android:id="@+id/radioButtonVegetarian" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Vegetarian" />

<RadioButton android:id="@+id/radioButtonNonVegetarian" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Non-Vegetarian" />

</RadioGroup>

<Button android:id="@+id/btnSubmit"

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Submit" android:layout\_below="@id/radioGroupDiet" android:layout\_centerHorizontal="true" android:layout\_marginTop="32dp"/>

</RelativeLayout>

## Mainactivity

package com.example.myapplication; import android.os.Bundle;

import androidx.activity.EdgeToEdge;

import androidx.appcompat.app.AppCompatActivity; import androidx.core.graphics.Insets;

import androidx.core.view.ViewCompat;

import androidx.core.view.WindowInsetsCompat; import android.content.ContentValues;

import android.database.sqlite.SQLiteDatabase; import android.os.Bundle;

import android.view.View;

import android.widget.ArrayAdapter; import android.widget.Button; import android.widget.EditText; import android.widget.RadioButton; import android.widget.RadioGroup;

import android.widget.Spinner; import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

EditText etFirstName, etLastName, etDateOfBirth; Spinner spinnerLocation;

RadioGroup radioGroupDiet; Button btnSubmit;

private DBHelper dbHelper; @Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

dbHelper = new DBHelper(this);

etFirstName = findViewById(R.id.etFirstName); etLastName = findViewById(R.id.etLastName); etDateOfBirth = findViewById(R.id.etDateOfBirth); spinnerLocation = findViewById(R.id.spinnerLocation); radioGroupDiet = findViewById(R.id.radioGroupDiet); btnSubmit = findViewById(R.id.btnSubmit);

// Populate spinner with data

ArrayAdapter<CharSequence> adapter = ArrayAdapter.createFromResource(this, R.array.locations\_array, android.R.layout.simple\_spinner\_item);

adapter.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item); spinnerLocation.setAdapter(adapter);

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

public void onClick(View v) { if (validateForm()) {

// If form is valid, save data to database saveToDatabase();

}

}

});

}

private boolean validateForm() {

String firstName = etFirstName.getText().toString().trim(); String lastName = etLastName.getText().toString().trim(); String dateOfBirth = etDateOfBirth.getText().toString().trim(); String location = spinnerLocation.getSelectedItem().toString();

RadioButton selectedRadioButton = findViewById(radioGroupDiet.getCheckedRadioButtonId()); String diet = selectedRadioButton.getText().toString();

if (firstName.isEmpty() || lastName.isEmpty() || dateOfBirth.isEmpty() || location.isEmpty()) {

Toast.makeText(this, "Please fill in all fields", Toast.LENGTH\_SHORT).show(); return false;

}

return true;

}

private void saveToDatabase() {

SQLiteDatabase db = dbHelper.getWritableDatabase(); ContentValues values = new ContentValues();

values.put(DBHelper.COLUMN\_FIRST\_NAME, etFirstName.getText().toString().trim()); values.put(DBHelper.COLUMN\_LAST\_NAME, etLastName.getText().toString().trim()); values.put(DBHelper.COLUMN\_DATE\_OF\_BIRTH, etDateOfBirth.getText().toString().trim()); values.put(DBHelper.COLUMN\_LOCATION, spinnerLocation.getSelectedItem().toString()); RadioButton selectedRadioButton = findViewById(radioGroupDiet.getCheckedRadioButtonId()); values.put(DBHelper.COLUMN\_DIET, selectedRadioButton.getText().toString());

long newRowId = db.insert(DBHelper.TABLE\_NAME, null, values); if (newRowId != -1) {

Toast.makeText(this, "Details updated successfully and its displayed", Toast.LENGTH\_SHORT).show();

} else {

Toast.makeText(this, "Failed to save details", Toast.LENGTH\_SHORT).show();

}

}

@Override

protected void onDestroy() { dbHelper.close(); super.onDestroy();

}

}

## Dbhelper

package com.example.myapplication; import android.content.Context;

import android.database.sqlite.SQLiteDatabase; import android.database.sqlite.SQLiteOpenHelper;

public class DBHelper extends SQLiteOpenHelper {

private static final String DATABASE\_NAME = "MyDatabase.db"; private static final int DATABASE\_VERSION = 1;

public static final String TABLE\_NAME = "person"; public static final String COLUMN\_ID = "\_id";

public static final String COLUMN\_FIRST\_NAME = "first\_name"; public static final String COLUMN\_LAST\_NAME = "last\_name";

public static final String COLUMN\_DATE\_OF\_BIRTH = "date\_of\_birth"; public static final String COLUMN\_LOCATION = "location";

public static final String COLUMN\_DIET = "diet";

private static final String SQL\_CREATE\_ENTRIES = "CREATE TABLE " + TABLE\_NAME + " (" +

COLUMN\_ID + " INTEGER PRIMARY KEY," + COLUMN\_FIRST\_NAME + " TEXT," + COLUMN\_LAST\_NAME + " TEXT," + COLUMN\_DATE\_OF\_BIRTH + " TEXT," + COLUMN\_LOCATION + " TEXT," + COLUMN\_DIET + " TEXT)";

private static final String SQL\_DELETE\_ENTRIES = "DROP TABLE IF EXISTS " + TABLE\_NAME;

public DBHelper(Context context) {

super(context, DATABASE\_NAME, null, DATABASE\_VERSION);

}

@Override

public void onCreate(SQLiteDatabase db) { db.execSQL(SQL\_CREATE\_ENTRIES);

}

@Override

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) { db.execSQL(SQL\_DELETE\_ENTRIES);

onCreate(db);

}

}

## String.xml

<resources>

<string name="app\_name">My Application</string>

<!-- Spinner locations -->

<string-array name="locations\_array">

<item>Madurai</item>

<item>Chennai</item>

<item>Sivakasi</item>

</string-array>

</resources>