**ANDROID END SEM LAB – CODE**

**Prathunan – 21058**

**Databasehelper.java**

package com.example.registrationloginapp;  
  
import android.content.ContentValues;  
import android.content.Context;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.database.sqlite.SQLiteOpenHelper;  
  
public class DatabaseHelper extends SQLiteOpenHelper {  
  
 private static final String *DATABASE\_NAME* = "User.db";  
 private static final String *TABLE\_NAME* = "users";  
 private static final String *COL\_1* = "ID";  
 private static final String *COL\_2* = "NAME";  
 private static final String *COL\_3* = "PHONE";  
 private static final String *COL\_4* = "EMAIL";  
 private static final String *COL\_5* = "PASSWORD";  
  
 public DatabaseHelper(Context context) {  
 super(context, *DATABASE\_NAME*, null, 1);  
 }  
  
 @Override  
 public void onCreate(SQLiteDatabase db) {  
 db.execSQL("CREATE TABLE " + *TABLE\_NAME* + " (ID INTEGER PRIMARY KEY AUTOINCREMENT, NAME TEXT, PHONE TEXT, EMAIL TEXT, PASSWORD TEXT)");  
 }  
  
 @Override  
 public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {  
 db.execSQL("DROP TABLE IF EXISTS " + *TABLE\_NAME*);  
 onCreate(db);  
 }  
  
 public boolean insertData(String name, String phone, String email, String password) {  
 SQLiteDatabase db = this.getWritableDatabase();  
 ContentValues contentValues = new ContentValues();  
 contentValues.put(*COL\_2*, name);  
 contentValues.put(*COL\_3*, phone);  
 contentValues.put(*COL\_4*, email);  
 contentValues.put(*COL\_5*, password);  
 long result = db.insert(*TABLE\_NAME*, null, contentValues);  
 return result != -1;  
 }  
  
 public boolean checkUserExists(String email) {  
 SQLiteDatabase db = this.getReadableDatabase();  
 Cursor cursor = db.rawQuery("SELECT \* FROM " + *TABLE\_NAME* + " WHERE EMAIL=?", new String[]{email});  
 return cursor.getCount() > 0;  
 }  
  
 public boolean checkLoginCredentials(String email, String password) {  
 SQLiteDatabase db = this.getReadableDatabase();  
 Cursor cursor = db.rawQuery("SELECT \* FROM " + *TABLE\_NAME* + " WHERE EMAIL=? AND PASSWORD=?", new String[]{email, password});  
 return cursor.getCount() > 0;  
 }  
}

**AndroidManifest.xml**

package com.example.registrationloginapp;  
  
import android.content.ContentValues;  
import android.content.Context;  
import android.database.Cursor;  
import android.database.sqlite.SQLiteDatabase;  
import android.database.sqlite.SQLiteOpenHelper;  
  
public class DatabaseHelper extends SQLiteOpenHelper {  
  
 private static final String *DATABASE\_NAME* = "User.db";  
 private static final String *TABLE\_NAME* = "users";  
 private static final String *COL\_1* = "ID";  
 private static final String *COL\_2* = "NAME";  
 private static final String *COL\_3* = "PHONE";  
 private static final String *COL\_4* = "EMAIL";  
 private static final String *COL\_5* = "PASSWORD";  
  
 public DatabaseHelper(Context context) {  
 super(context, *DATABASE\_NAME*, null, 1);  
 }  
  
 @Override  
 public void onCreate(SQLiteDatabase db) {  
 db.execSQL("CREATE TABLE " + *TABLE\_NAME* + " (ID INTEGER PRIMARY KEY AUTOINCREMENT, NAME TEXT, PHONE TEXT, EMAIL TEXT, PASSWORD TEXT)");  
 }  
  
 @Override  
 public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {  
 db.execSQL("DROP TABLE IF EXISTS " + *TABLE\_NAME*);  
 onCreate(db);  
 }  
  
 public boolean insertData(String name, String phone, String email, String password) {  
 SQLiteDatabase db = this.getWritableDatabase();  
 ContentValues contentValues = new ContentValues();  
 contentValues.put(*COL\_2*, name);  
 contentValues.put(*COL\_3*, phone);  
 contentValues.put(*COL\_4*, email);  
 contentValues.put(*COL\_5*, password);  
 long result = db.insert(*TABLE\_NAME*, null, contentValues);  
**z**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout 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"  
 android:orientation="vertical"  
 android:padding="24dp"  
 android:background="@color/white"  
 android:gravity="center">  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Welcome to the App!"  
 android:textSize="32sp"  
 android:textStyle="bold"  
 android:textColor="@color/colorPrimary"  
 tools:ignore="HardcodedText" />  
  
 <TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Your journey begins here."  
 android:textSize="18sp"  
 android:layout\_marginTop="10dp"  
 android:textColor="@color/colorPrimaryDark"  
 tools:ignore="HardcodedText"/>  
  
 <Button  
 android:id="@+id/startButton"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Get Started"  
 android:backgroundTint="@color/colorPrimary"  
 android:textColor="@android:color/white"  
 android:layout\_marginTop="30dp"  
 android:padding="12dp"  
 tools:ignore="HardcodedText"/>  
  
</LinearLayout>

**Welcomeactivity.java**

package com.example.registrationloginapp;  
  
import android.annotation.SuppressLint;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class WelcomeActivity extends AppCompatActivity {  
  
 @SuppressLint("SetTextI18n")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_welcome*);  
  
 TextView welcomeMessage = findViewById(R.id.*welcomeMessage*);  
 welcomeMessage.setText("Welcome, User!");  
 }  
}

**Loginactivity.java**

package com.example.registrationloginapp;  
  
import android.annotation.SuppressLint;  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class LoginActivity extends AppCompatActivity {  
  
 EditText emailInputLogin, passwordInputLogin;  
 Button loginButton;  
 DatabaseHelper db;  
  
 @SuppressLint("MissingInflatedId")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*login\_activity*);  
  
 db = new DatabaseHelper(this);  
  
 emailInputLogin = findViewById(R.id.*emailInputLogin*);  
 passwordInputLogin = findViewById(R.id.*passwordInputLogin*);  
 loginButton = findViewById(R.id.*loginButton*);  
  
 loginButton.setOnClickListener(v -> {  
 String email = emailInputLogin.getText().toString();  
 String password = passwordInputLogin.getText().toString();  
  
 if (email.isEmpty() || password.isEmpty()) {  
 Toast.*makeText*(LoginActivity.this, "All fields are required", Toast.*LENGTH\_SHORT*).show();  
 } else {  
 boolean checkCredentials = db.checkLoginCredentials(email, password);  
 if (checkCredentials) {  
 Toast.*makeText*(LoginActivity.this, "Login Successful", Toast.*LENGTH\_SHORT*).show();  
 Intent intent = new Intent(LoginActivity.this, WelcomeActivity.class);  
 startActivity(intent);  
 } else {  
 Toast.*makeText*(LoginActivity.this, "Invalid Email or Password", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
}

Welcomeactivity.java

package com.example.registrationloginapp;  
  
import android.annotation.SuppressLint;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class WelcomeActivity extends AppCompatActivity {  
  
 @SuppressLint("SetTextI18n")  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_welcome*);  
  
 TextView welcomeMessage = findViewById(R.id.*welcomeMessage*);  
 welcomeMessage.setText("Welcome, User!");  
 }  
}

**Mainactivity.java**

package com.example.registrationloginapp;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.widget.Button;  
import android.widget.EditText;  
import android.widget.Toast;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 EditText nameInput, phoneInput, emailInput, passwordInput;  
 Button registerButton;  
 DatabaseHelper db;  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_main*);  
  
 db = new DatabaseHelper(this);  
  
 nameInput = findViewById(R.id.*nameInput*);  
 phoneInput = findViewById(R.id.*phoneInput*);  
 emailInput = findViewById(R.id.*emailInput*);  
 passwordInput = findViewById(R.id.*passwordInput*);  
 registerButton = findViewById(R.id.*registerButton*);  
  
 registerButton.setOnClickListener(v -> {  
 String name = nameInput.getText().toString();  
 String phone = phoneInput.getText().toString();  
 String email = emailInput.getText().toString();  
 String password = passwordInput.getText().toString();  
  
 if (name.isEmpty() || phone.isEmpty() || email.isEmpty() || password.isEmpty()) {  
 Toast.*makeText*(MainActivity.this, "All fields are required", Toast.*LENGTH\_SHORT*).show();  
 } else {  
 boolean userExists = db.checkUserExists(email);  
 if (!userExists) {  
 boolean insertSuccess = db.insertData(name, phone, email, password);  
 if (insertSuccess) {  
 Toast.*makeText*(MainActivity.this, "Registered Successfully", Toast.*LENGTH\_SHORT*).show();  
 Intent intent = new Intent(MainActivity.this, LoginActivity.class);  
 startActivity(intent);  
 } else {  
 Toast.*makeText*(MainActivity.this, "Registration Failed", Toast.*LENGTH\_SHORT*).show();  
 }  
 } else {  
 Toast.*makeText*(MainActivity.this, "User already exists", Toast.*LENGTH\_SHORT*).show();  
 }  
 }  
 });  
 }  
}

SCREEN SHOT:







