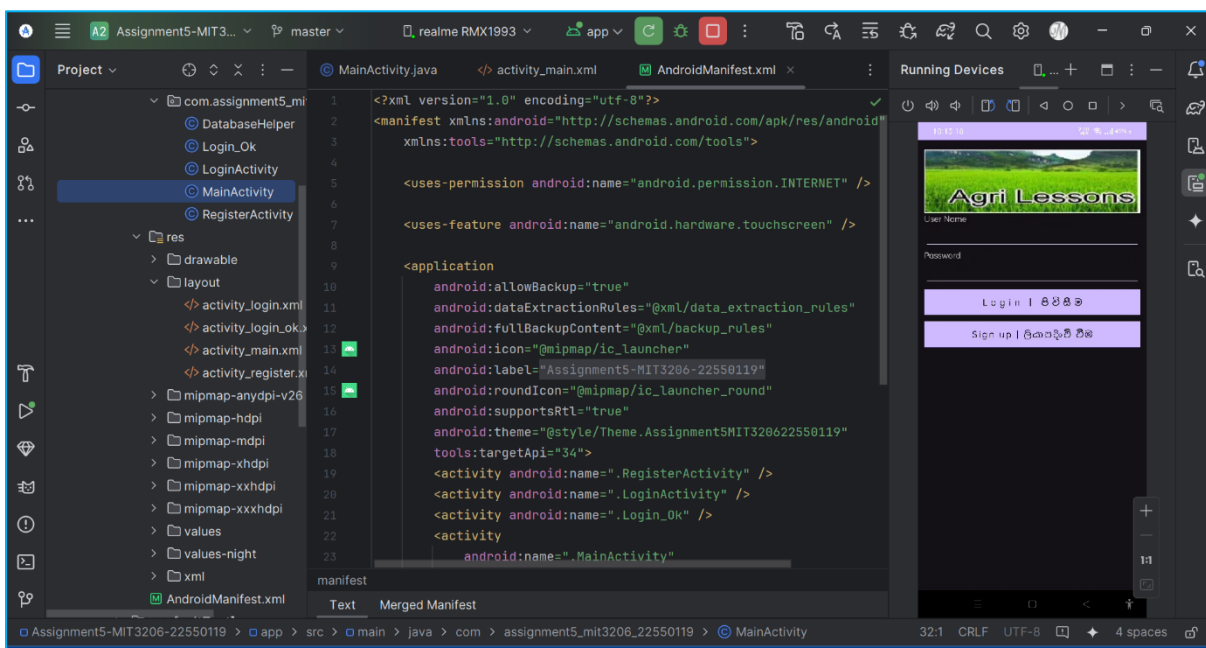


- ❖ Course Module : MIT3206 - Mobile Computing
- ❖ Course Lecturer : Senior Lecturer Gihan P. Seneviratne Sir
- ❖ Assignment 5 : (a). User can select One Option out of the Available Eight Options at a Time
(b). User Login and Signup
- ❖ Assignment 5 Google Drive Uploaded Link :
<https://drive.google.com/drive/folders/1w69hyAQuOTiodJPvwQ8LGriwqgC8epeJ?usp=sharing>
- ❖ GitHub Private Repository Link :
<https://github.com/NavinduMadusanka/Assignment5-MIT3206-22550119.git>
- ❖ Student Name : Kumarage Navindu Madusanka Dias (K.N.M. Dias)
- ❖ Student Index No : 22550119
- ❖ Student Registration No : 2022/MIT/011
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Assignment5-MIT3206-22550119

Assignment 5 : (a). User can select One Option out of the Available Eight

Options at a Time

(b). User Login and Signup

Below is a summary of what I have learned and focused on in this assignment.

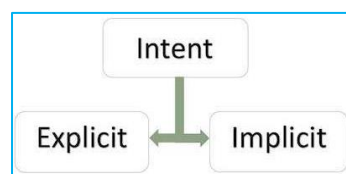
1. Android Components

- **API level**

Android Version	API Level	Version Name
Android 7.0	24	Nougat

- **Newly learned key points in this assignment**

- Create User Login - A login application is the screen that prompts you for your credentials in order to access a certain program
- Create a login screen and how to manage when false attempts are made
- Define two textView asking username and password of the user
- Toast Message
- Types of Intents



Intent Type

- Working with DatabaseHelper & Creat Database & Table for users,

```

public class DatabaseHelper extends SQLiteOpenHelper{
    public static final String DATABASE_NAME ="register.db";
    public static final String TABLE_NAME ="registeruser";
    public static final String COL_1 ="ID";
    public static final String COL_2 ="username";
    public static final String COL_3 ="password";
}
  
```

- **Permission** : uses-permission - Access INTERNET
- **tools:targetApi="34"** in **AndroidManifest.xml**
- **uses-feature android:name="android.hardware.touchscreen"**
- **strings.xml** in **values**
- **User Login Name** - "navindu" and **User Login Password** - "navindu"

2. Functionality of the mobile application

- Gives the opportunity to login or register when an item is clicked.
- Click on sign up to register.
- Navigates to the Register window.
- After entering the required data, the registration button should be pressed.
- Now offers the opportunity to Login.
- Allows you to log in after entering your username and password.

3. Layout & Attributes

- **LinearLayout**

LinearLayout is a view group that aligns all children in a single direction, vertically or horizontally.

We can specify the layout direction with the android:orientation attribute.

Android LinearLayout is a view group that aligns all children in either vertically or horizontally.

- **RelativeLayout**

It gives us the flexibility to position our component / view based on the relative or sibling component's position.

For the same reason Relative layout is the most used layout after the Linear Layout in Android.

It allows its child view to position relative to each other or relative to the container or another container.

4. Running the Application on my android mobile device

I was running the android app for testing in my android mobile device.

My android mobile device is Realme X2 RMX1993.

Below is a Screenshots of my android mobile device (Realme X2 RMX1993) while the app was running.

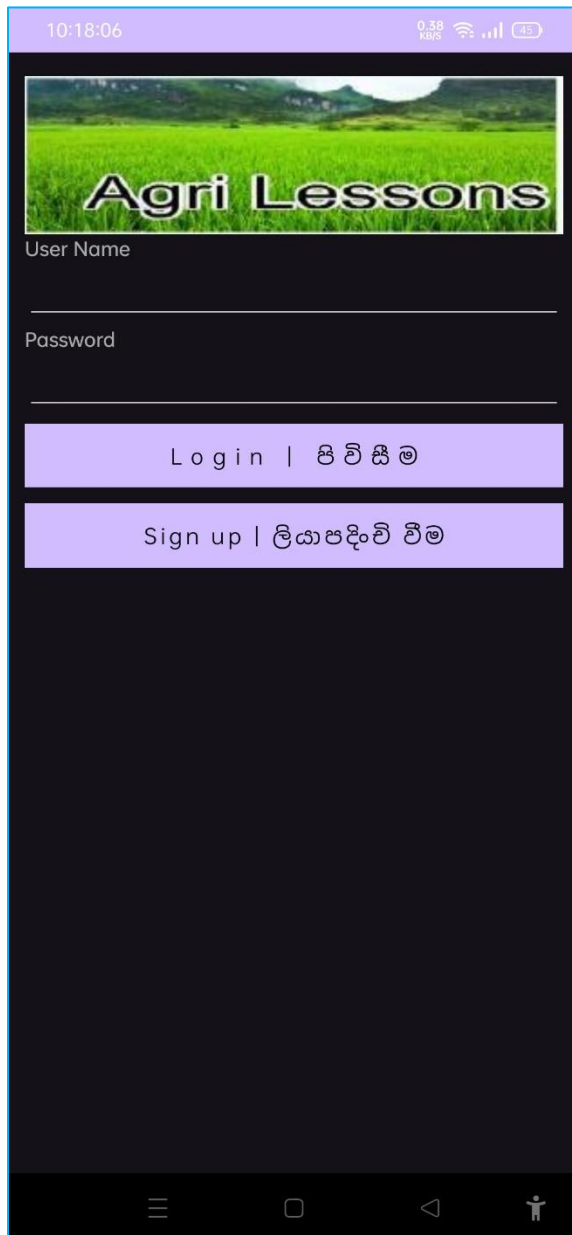


Photo 1 : Assignment5-MIT3206-22550119-
UserLogin in Realme X2 RMX1993

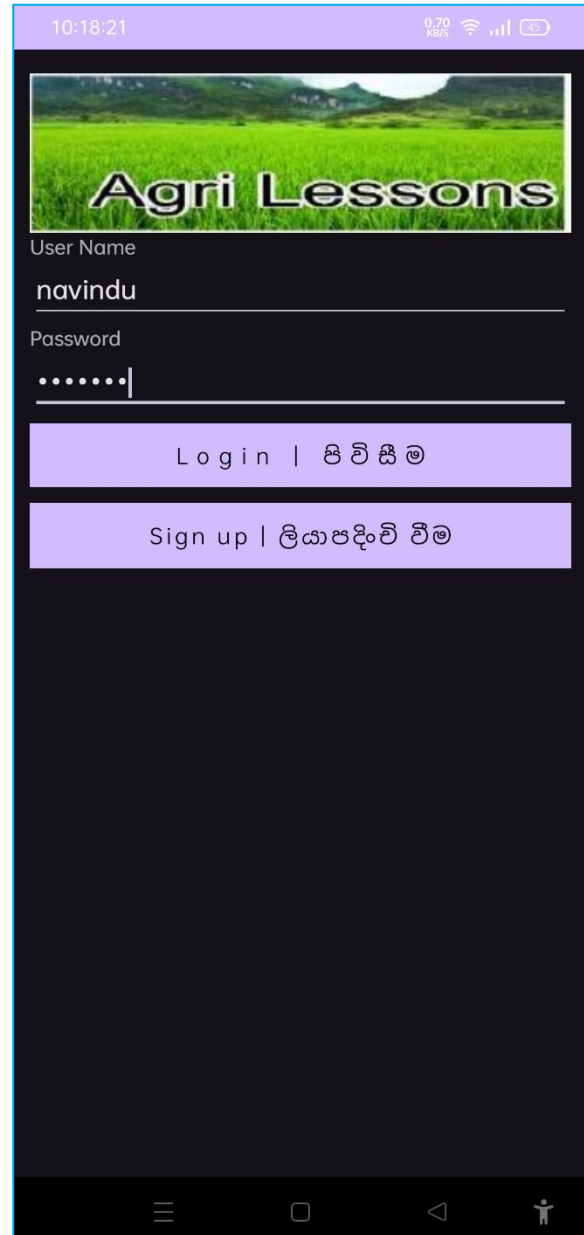


Photo 2 : Assignment5-MIT3206-22550119-
UserLogin in Realme X2 RMX1993

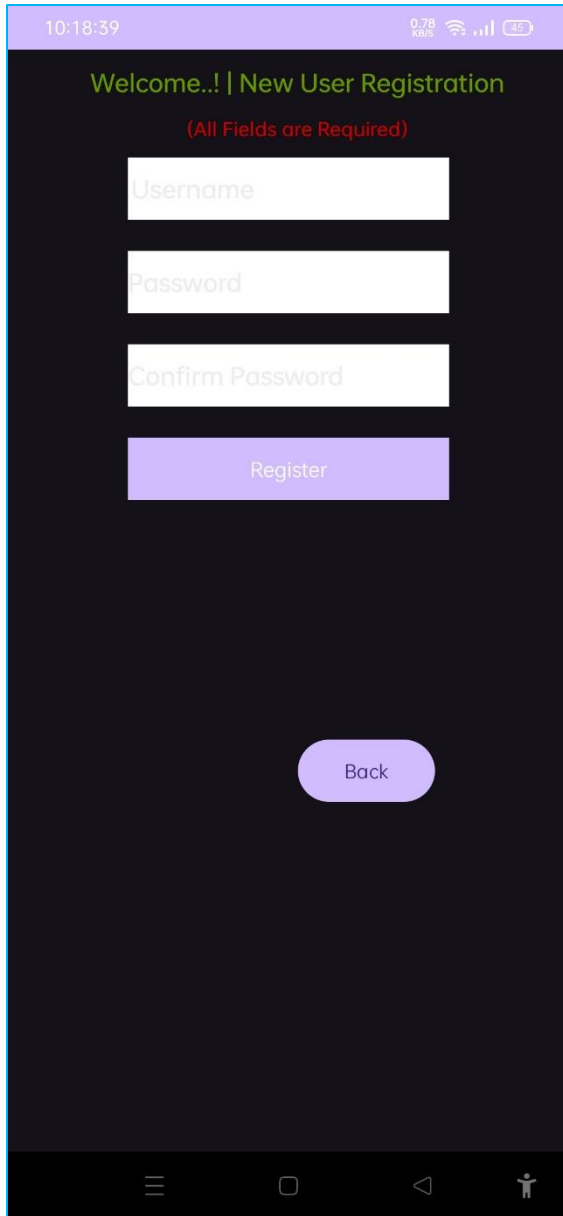


Photo 3 : Assignment5-MIT3206-22550119-
UserSignup in Realme X2 RMX1993

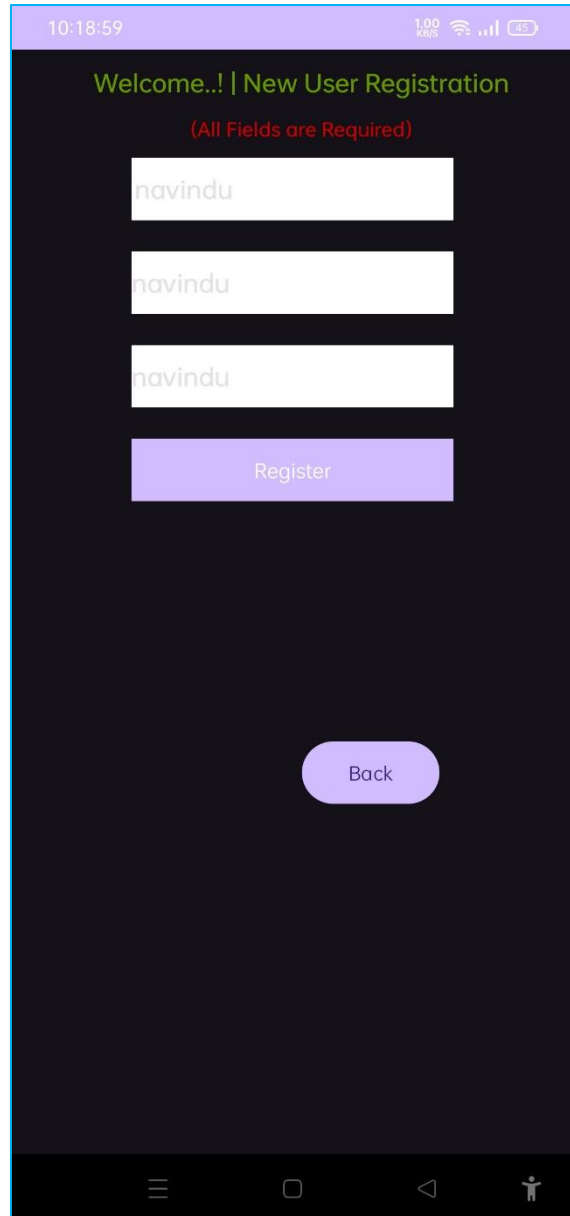


Photo 4 : Assignment5-MIT3206-22550119-
UserSignup in Realme X2 RMX1993

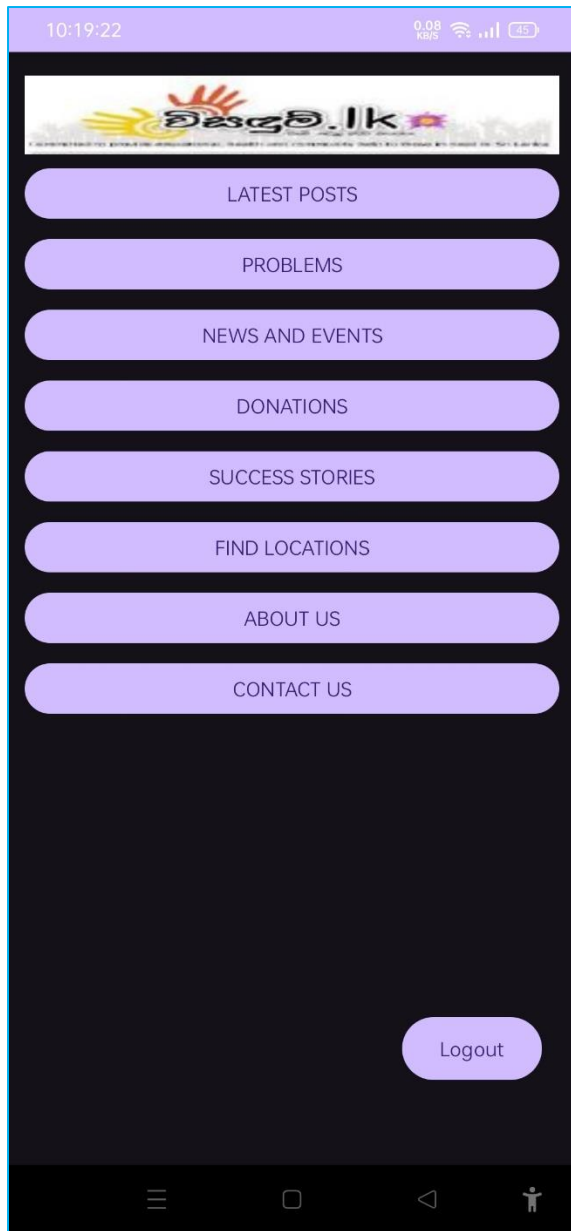


Photo 5 : Assignment5-MIT3206-22550119-
AvailableEightOptions in Realme X2 RMX1993

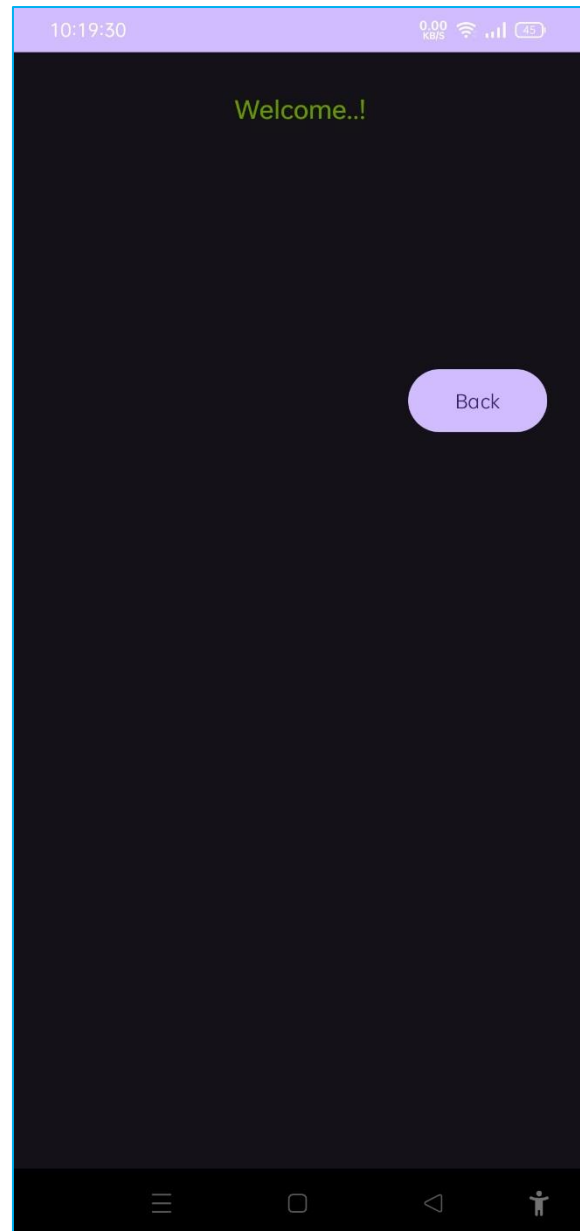


Photo 6 : Assignment5-MIT3206-22550119-
AvailableEightOptions in Realme X2 RMX1993

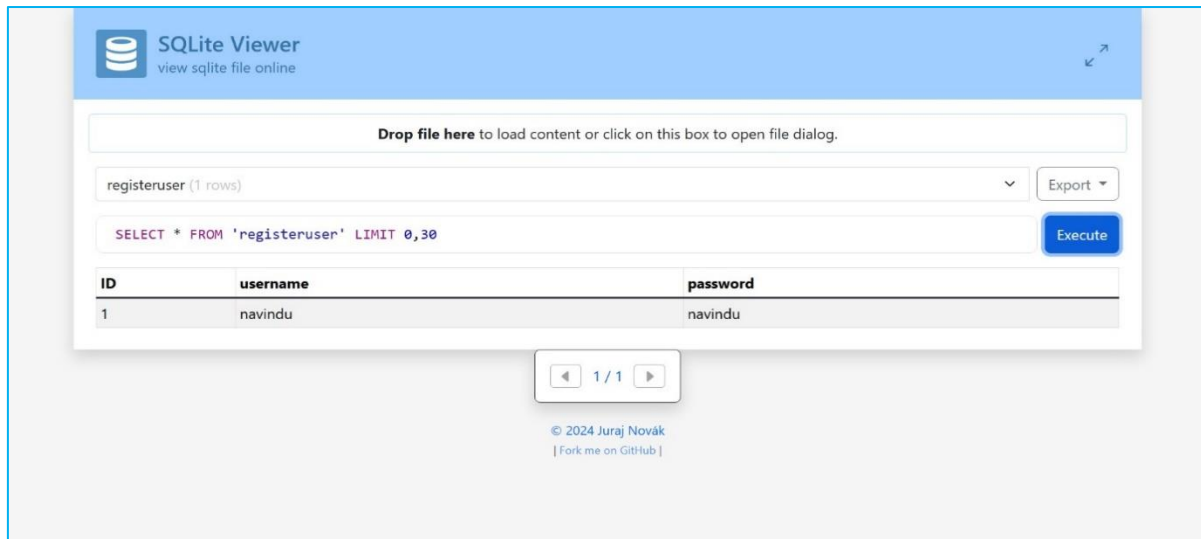


Photo 7 : Assignment5-MIT3206-22550119-Database in Realme X2 RMX1993

5. Main Coding files

- MainActivity.java

```
package com.assignment5_mit3206_22550119;
```

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

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
    EditText mTextUsername;
    EditText mTextPassword;
    Button mButtonLogin;
    TextView mTextViewRegister;
    DatabaseHelper db;
    Button button;
```

```
@Override
```

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

```

db = new DatabaseHelper(this);
mTextUsername = (EditText)findViewById(R.id.edittext_username);
mTextPassword = (EditText)findViewById(R.id.edittext_password);
mButtonLogin = (Button)findViewById(R.id.button_login);
mButtonLogin.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent registerIntent = new Intent(MainActivity.this, RegisterActivity.class);
        startActivity(registerIntent);
    }
});

mButtonLogin.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String user = mTextUsername.getText().toString().trim();
        String pwd = mTextPassword.getText().toString().trim();
        Boolean res = db.checkUser(user, pwd);
        if(res == true)
        {
            Intent HomePage = new Intent(MainActivity.this, Login_Ok.class);
            startActivity(HomePage);
            Intent i = new Intent(getApplicationContext(), Login_Ok.class);
            startActivity(i);
        }
        else
        {
            Toast.makeText(MainActivity.this, "Check Your User Name and
Password", Toast.LENGTH_SHORT).show();
        }
    }
});

button=findViewById(R.id.button_register);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), RegisterActivity.class);
        startActivity(i);
    }
});
}
}

```


- RegisterActivity.java

```
package com.assignment5_mit3206_22550119;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class RegisterActivity extends AppCompatActivity {
    DatabaseHelper db;
    EditText mTextUsername;
    EditText mTextPassword;
    EditText mTextCnfPassword;
    Button mButtonRegister;

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

        db = new DatabaseHelper(this);
        mTextUsername = (EditText)findViewById(R.id.edittext_username);
        mTextPassword = (EditText)findViewById(R.id.edittext_password);
        mTextCnfPassword = (EditText)findViewById(R.id.edittext_cnf_password);
        mButtonRegister = (Button)findViewById(R.id.button_register);
        mButtonRegister.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent LoginIntent = new Intent(RegisterActivity.this, MainActivity.class);
                startActivity(LoginIntent);
            }
        });

        mButtonRegister.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = mTextUsername.getText().toString().trim();
                String pwd = mTextPassword.getText().toString().trim();
                String cnf_pwd = mTextCnfPassword.getText().toString().trim();

                if(pwd.equals(cnf_pwd)){
                    long val = db.addUser(user,pwd);
                    if(val > 0){
```

```

        Toast.makeText(RegisterActivity.this, "Welcome..! | You have
Registered", Toast.LENGTH_SHORT).show();
        Intent moveToLogin = new Intent(RegisterActivity.this, MainActivity.class);
        startActivity(moveToLogin);
    }
    else{
        Toast.makeText(RegisterActivity.this, "Sorry..! | Registration
Error", Toast.LENGTH_SHORT).show();
    }

    }
    else{
        Toast.makeText(RegisterActivity.this, "Sorry..! | Password Missed
Matched", Toast.LENGTH_SHORT).show();
    }
}
});

Button backButton = findViewById(R.id.button_back);
backButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent intent = new Intent(RegisterActivity.this, MainActivity.class);
        startActivity(intent);
        finish(); // finish the current activity
    }
});
}
}

```

- **Login_Ok.java**

```

package com.assignment5_mit3206_22550119;

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

import androidx.appcompat.app.AppCompatActivity;

public class Login_Ok extends AppCompatActivity {

    Button button;
    @Override
    protected void onCreate(Bundle savedInstanceState) {

```

```
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_login_ok);

button=findViewById(R.id.button1);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

button=findViewById(R.id.button2);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

button=findViewById(R.id.button3);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

button=findViewById(R.id.button4);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

button=findViewById(R.id.button5);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});
```

```
button=findViewById(R.id.button6);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

button=findViewById(R.id.button7);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

button=findViewById(R.id.button8);
button.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(), LoginActivity.class);
        startActivity(i);
    }
});

Button logoutButton = findViewById(R.id.button_logout);
logoutButton.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent intent = new Intent(Login_Ok.this, MainActivity.class);
        startActivity(intent);
        finish(); // finish the current activity
    }
});
}
```

- databaseHelper.java

```
package com.assignment5_mit3206_22550119;

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{
    public static final String DATABASE_NAME="register.db";
    public static final String TABLE_NAME="registeruser";
    public static final String COL_1="ID";
    public static final String COL_2="username";
    public static final String COL_3="password";

    public DatabaseHelper(Context context) {
        super(context, DATABASE_NAME, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase sqLiteDatabase) {
        sqLiteDatabase.execSQL("CREATE TABLE registeruser (ID INTEGER PRIMARY KEY
        AUTOINCREMENT, username TEXT, password TEXT)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {
        sqLiteDatabase.execSQL(" DROP TABLE IF EXISTS " + TABLE_NAME);
        onCreate(sqLiteDatabase);
    }

    public long addUser(String user, String password){
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put("username",user);
        contentValues.put("password",password);
        long res = db.insert("registeruser",null,contentValues);
        db.close();
        return res;
    }

    public boolean checkUser(String username, String password){
        String[] columns = { COL_1 };
        SQLiteDatabase db = getReadableDatabase();
```

```
String selection = COL_2 + "=? " + " and " + COL_3 + "=?";
String[] selectionArgs = { username, password };
Cursor cursor = db.query(TABLE_NAME,columns,selection,selectionArgs,null,null,null);
int count = cursor.getCount();
cursor.close();
db.close();

if(count>0)
    return true;
else
    return false;
}
}
```

- **LoginActivity.java**

```
package com.assignment5_mit3206_22550119;

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

import androidx.appcompat.app.AppCompatActivity;

public class LoginActivity extends AppCompatActivity {

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

        Button backButton = findViewById(R.id.button_back);
        backButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(LoginActivity.this, Login_Ok.class);
                startActivity(intent);
                finish(); // finish the current activity
            }
        });
    }
}
```

- activity_main.xml

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

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:textStyle="bold"
        android:layout_height="100dp"
        android:layout_marginTop="5dp"
        android:background="@drawable/agrilelessons"
        android:visibility="visible" />

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textStyle="bold"
        android:text="User Name"
        android:textColor="@android:color/darker_gray" />

    <EditText
        android:id="@+id/edittext_username"
        android:layout_width="match_parent"
        android:textStyle="bold"
        android:layout_height="40dp"/>

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textStyle="bold"
        android:text="Password"
        android:textColor="@android:color/darker_gray" />

    <EditText
        android:id="@+id/edittext_password"
        android:layout_width="match_parent"
        android:textStyle="bold"
        android:inputType="textPassword"
        android:layout_height="40dp" />

    <Button
        android:id="@+id/button_login"
```

```

android:layout_width="match_parent"
android:layout_height="40dp"
android:layout_marginTop="5dp"
android:background="@android:color/darker_gray"
android:inputType="textCapSentences"
android:textStyle="bold"
android:letterSpacing="0.40"
android:text="Login | පිවිසීම"
android:textColor="@android:color/background_dark"
android:textSize="16sp" />

```

```

<Button
    android:id="@+id/button__register"
    android:layout_width="match_parent"
    android:layout_height="41dp"
    android:layout_marginTop="10dp"
    android:background="@android:color/darker_gray"
    android:inputType="textCapSentences"
    android:textStyle="bold"
    android:letterSpacing="0.15"
    android:text="Sign up | ලියාපදිංචි වීම"
    android:textColor="@android:color/background_dark"
    android:textSize="16sp" />

```

```

</LinearLayout>

```

- **activity_login_ok.xml**

```

<?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"
    android:orientation="vertical"
    android:visibility="visible"
    android:padding="10dp"
    tools:context=".Login_Ok"
    tools:visibility="visible">

```

```

<ImageView
    android:id="@+id/imageView"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"

```



```
android:layout_marginTop="5dp"
android:textStyle="bold"
android:background="@drawable/pic1"
android:visibility="visible"
tools:srcCompat="@drawable/ic_launcher_background" />
```

```
<Button
    android:id="@+id/button1"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_centerHorizontal="true"
    android:textStyle="bold"
    android:layout_marginTop="60dp"
    android:text="LATEST POSTS" />
```

```
<Button
    android:id="@+id/button2"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_centerHorizontal="true"
    android:textStyle="bold"
    android:layout_marginTop="105dp"
    android:text="PROBLEMS" />
```

```
<Button
    android:id="@+id/button3"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_centerHorizontal="true"
    android:textStyle="bold"
    android:layout_marginTop="150dp"
    android:text="NEWS AND EVENTS" />
```

```
<Button
    android:id="@+id/button4"
    android:layout_width="match_parent"
    android:layout_height="40dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_centerHorizontal="true"
    android:textStyle="bold"
```

```
android:layout_marginTop="195dp"  
android:text="DONATIONS" />
```

<Button

```
android:id="@+id/button5"  
android:layout_width="match_parent"  
android:layout_height="40dp"  
android:layout_alignParentTop="true"  
android:layout_alignParentEnd="true"  
android:layout_centerHorizontal="true"  
android:textStyle="bold"  
android:layout_marginTop="240dp"  
android:text="SUCCESS STORIES" />
```

<Button

```
android:id="@+id/button6"  
android:layout_width="match_parent"  
android:layout_height="40dp"  
android:layout_alignParentTop="true"  
android:layout_alignParentEnd="true"  
android:layout_centerHorizontal="true"  
android:textStyle="bold"  
android:layout_marginTop="285dp"  
android:text="FIND LOCATIONS" />
```

<Button

```
android:id="@+id/button7"  
android:layout_width="match_parent"  
android:layout_height="40dp"  
android:layout_alignParentTop="true"  
android:layout_alignParentEnd="true"  
android:layout_centerHorizontal="true"  
android:textStyle="bold"  
android:layout_marginTop="330dp"  
android:text="ABOUT US" />
```

<Button

```
android:id="@+id/button8"  
android:layout_width="match_parent"  
android:layout_height="40dp"  
android:layout_alignParentTop="true"  
android:layout_alignParentEnd="true"  
android:layout_centerHorizontal="true"  
android:textStyle="bold"  
android:layout_marginTop="375dp"  
android:text="CONTACT US" />
```

```
<Button
    android:id="@+id/button_logout"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textStyle="bold"
    android:layout_marginStart="240dp"
    android:layout_marginTop="600dp"
    android:text="Logout" />
```

```
</RelativeLayout>
```

- **activity_register.xml**

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

```
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    android:paddingLeft="12dp"
    android:textStyle="bold"
    android:text="Welcome..! | New User Registration"
    android:textColor="@android:color/holo_green_dark"
    android:textSize="18sp" />
```

```
<TextView
    android:id="@+id/textView1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    android:paddingLeft="12dp"
    android:textStyle="bold"
    android:text="(All Fields are Required)"
    android:textColor="@android:color/holo_red_dark"
    android:textSize="14sp" />
```

```
<EditText
    android:id="@+id/edittext_username"
    android:textStyle="bold"
    android:layout_width="206dp"
```

```
android:layout_height="40dp"
android:layout_marginTop="10dp"
android:paddingLeft="2dp"
android:background="#ffffff"
android:hint="Username" />
```

```
<EditText
    android:id="@+id/edittext_password"
    android:textStyle="bold"
    android:layout_width="206dp"
    android:layout_height="40dp"
    android:layout_marginTop="20dp"
    android:background="#ffffff"
    android:hint="Password"/>
```

```
<EditText
    android:id="@+id/edittext_cnf_password"
    android:textStyle="bold"
    android:layout_width="206dp"
    android:layout_height="40dp"
    android:layout_marginTop="20dp"
    android:background="#ffffff"
    android:hint="Confirm Password"/>
```

```
<Button
    android:id="@+id/button_register"
    android:textStyle="bold"
    android:layout_width="206dp"
    android:layout_height="40dp"
    android:layout_marginTop="20dp"
    android:background="@android:color/holo_blue_dark"
    android:text="Register"
    android:textColor="#ffffff"
    android:textSize="15sp" />
```

```
<Button
    android:id="@+id/button_back"
    android:textStyle="bold"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="50dp"
    android:layout_marginTop="150dp"
    android:text="Back" />
```

```
</LinearLayout>
```

- **activity_login.xml**

```
<?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"
    tools:context=".LoginActivity">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="25dp"
        android:paddingLeft="140dp"
        android:textStyle="bold"
        android:text="Welcome..!"
        android:textColor="@android:color/holo_green_dark"
        android:textSize="18sp" />

    <Button
        android:id="@+id/button_back"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textStyle="bold"
        android:layout_marginStart="250dp"
        android:layout_marginTop="150dp"
        android:text="Back" />

</LinearLayout>
```

- **strings.xml**

```
<resources>
    <string name="app_name">Assignment5-MIT3206-22550119</string>
    <string name="action_settings">Settings</string>
    //lines to be added are below
    <string name="login">LOGIN</string>
    <string name="username">Username</string>
    <string name="password">Password</string>
    <string name="not_registered">Not Registered?</string>
    <string name="register">Register</string>
    <string name="confirm_password">Confirm Password</string>
    <string name="already_registered">Already Registered?</string>
    <string name="welcome_user">Welcome User</string>
</resources>
```

- **AndroidManifest.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <uses-permission android:name="android.permission.INTERNET" />

    <uses-feature android:name="android.hardware.touchscreen" />

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Assignment5MIT320622550119"
        tools:targetApi="34">
        <activity android:name=".RegisterActivity" />
        <activity android:name=".Login_Ok" />
        <activity android:name=".LoginActivity" />
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

- **drawable**



agrilessons



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