

Android Practical (209) – Assignment-1

Question-1

1. Create an android application for Tic-tac-toe Game. Having following features.
 - First page will ask for the names of player in Edit Text and provide two options PLAY and ABOUT GAME.
 1. PLAY options starts game,
 2. ABOUT GAME options open a page having information about game.
 - Proper welcome message and results with players name must be displayed.

-----AndroidManifest.xml-----

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.q1">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Q1">

        <activity
            android:name=".GameActivity"
            android:exported="true" />

        <activity
            android:name=".WelcomeActivity"
            android:exported="true" />

        <activity
            android:name=".AboutActivity"
            android:exported="true" />

        <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>
```

=====JAVA FILES=====

-----MainActivity.java-----

```
package com.example.q1;
```

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

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.TextView;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText edtPlayer1,edtPlayer2;
```

```
    Button btnPlay,btnAbout;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        edtPlayer1 = findViewById(R.id.edtPlayer1);
```

```
        edtPlayer2 = findViewById(R.id.edtPlayer2);
```

```
        btnPlay = findViewById(R.id.btnPlay);
```

```
        btnAbout = findViewById(R.id.btnAbout);
```

```
        btnPlay.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View view) {
```

```
                String p1 = edtPlayer1.getText().toString();
```

```
                String p2 = edtPlayer2.getText().toString();
```

```
                Intent i = new Intent(getApplicationContext(),WelcomeActivity.class);
```

```
        i.putExtra("p1",p1);  
        i.putExtra("p2",p2);  
        startActivity(i);  
    }  
});
```

```
btnAbout.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        Intent i = new Intent(getApplicationContext(),AboutActivity.class);  
        startActivity(i);  
    }  
});  
}  
}
```

```
package com.example.q1;
```

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

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
public class AboutActivity extends AppCompatActivity {
```

```
    Button btnBack;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_about);
```

```
        btnBack = findViewById(R.id.btnBack);
```

```
        btnBack.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View view) {
```

```
                finish();
```

```
            }
```

```
        });
```

```
    }
```

```
}
```

```
package com.example.q1;

import androidx.activity.result.ActivityResult;
import androidx.activity.result.ActivityResultCallback;
import androidx.activity.result.ActivityResultLauncher;
import androidx.activity.result.contract.ActivityResultContracts;
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;
import android.widget.Toast;

public class WelcomeActivity extends AppCompatActivity {

    Button btnStart,btnBack;
    TextView txtPlayer1,txtPlayer2,txtWin;
    String Winner;
    ActivityResultLauncher arlo;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_welcome);

        btnStart = findViewById(R.id.btnStart);
        btnBack = findViewById(R.id.btnBack);

        txtPlayer1 = findViewById(R.id.txtPlayer1);
        txtPlayer2 = findViewById(R.id.txtPlayer2);
        txtWin = findViewById(R.id.txtWin);
```

```
Intent i = getIntent();
```

```
String p1 = i.getStringExtra("p1");
```

```
String p2 = i.getStringExtra("p2");
```

```
txtPlayer1.setText(p1);
```

```
txtPlayer2.setText(p2);
```

```
arlo = registerForActivityResult(new ActivityResultContracts.StartActivityForResult(), new  
ActivityResultCallback<ActivityResult>() {  
    @Override  
    public void onActivityResult(ActivityResult result) {  
        if(result.getResultCode() == RESULT_OK){  
            Intent i = result.getData();  
            Winner = i.getStringExtra("win");  
            Toast.makeText(getApplicationContext(), ""+Winner, Toast.LENGTH_SHORT).show();  
        }  
        txtWin.setText(Winner);  
        btnStart.setText("ReStart Game");  
        btnBack.setText("Cancel");  
    }  
});
```

```
btnStart.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        Intent i = new Intent(getApplicationContext(),GameActivity.class);  
        i.putExtra("p1",p1);  
        i.putExtra("p2",p2);  
        //startActivity(i);  
        arlo.launch(i);  
    }  
});
```

```
});
```

```
btnBack.setOnClickListener(new View.OnClickListener() {
```

```
    @Override
```

```
    public void onClick(View view) {
```

```
        finish();
```

```
    }
```

```
});
```

```
}
```

```
}
```



```
package com.example.q1;
```

```
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;
```

```
import android.widget.Toast;
```

```
public class GameActivity extends AppCompatActivity {
```

```
    TextView txtP1,txtP2,txtTurn;
```

```
    Button b[][] = new Button[3][3];
```

```
    Button btn00,btn01,btn02,btn10,btn11,btn12,btn20,btn21,btn22,btnBack;
```

```
    String turn = "X";
```

```
    int count=0;
```

```
    String win = "";
```

```
    String p1,p2;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_game);
```

```
        btn00 = findViewById(R.id.btn00);
```

```
        btn01 = findViewById(R.id.btn01);
```

```
        btn02 = findViewById(R.id.btn02);
```

```
        btn10 = findViewById(R.id.btn10);
```

```
        btn11 = findViewById(R.id.btn11);
```

```
        btn12 = findViewById(R.id.btn12);
```

```
btn20 = findViewById(R.id.btn20);
```

```
btn21 = findViewById(R.id.btn21);
```

```
btn22 = findViewById(R.id.btn22);
```

```
txtP1 = findViewById(R.id.txtP1);
```

```
txtP2 = findViewById(R.id.txtP2);
```

```
txtTurn = findViewById(R.id.txtTurn);
```

```
btnBack = findViewById(R.id.btnBack);
```

```
Intent i = getIntent();
```

```
p1 = i.getStringExtra("p1");
```

```
p2 = i.getStringExtra("p2");
```

```
txtP1.setText("Player-1 (X) : "+p1);
```

```
txtP2.setText("Player-2 (O) : "+p2);
```

```
b[0][0] = btn00;
```

```
b[0][1] = btn01;
```

```
b[0][2] = btn02;
```

```
b[1][0] = btn10;
```

```
b[1][1] = btn11;
```

```
b[1][2] = btn12;
```

```
b[2][0] = btn20;
```

```
b[2][1] = btn21;
```

```
b[2][2] = btn22;
```

```
}
```

```
public void btnClick(View v){
```

```
    Button btn = (Button) v;
```

```

count++;
if(count%2 == 0){
    btn.setText(turn);
    turn ="X";
}
else{
    btn.setText(turn);
    turn = "O";
}
if(checkWin()){
    Toast.makeText(this, ""+win, Toast.LENGTH_SHORT).show();

    Intent i = new Intent();
    i.putExtra("win",win);
    setResult(RESULT_OK,i);
    finish();

}
else{
    Toast.makeText(this, "Next Turn : "+turn, Toast.LENGTH_SHORT).show();
    txtTurn.setText("Next Turn : "+turn);
}
}

```

```

protected boolean checkWin(){

    String b00 = b[0][0].getText().toString();
    String b01 = b[0][1].getText().toString();
    String b02 = b[0][2].getText().toString();
    String b10 = b[1][0].getText().toString();
    String b11 = b[1][1].getText().toString();
    String b12 = b[1][2].getText().toString();
    String b20 = b[2][0].getText().toString();

```

```
String b21 = b[2][1].getText().toString();
```

```
String b22 = b[2][2].getText().toString();
```

```
if((b00.equals(b01) && b01.equals(b02) && b00.equals("X")) ||
```

```
    (b10.equals(b11) && b11.equals(b12) && b10.equals("X")) ||
```

```
    (b20.equals(b21) && b21.equals(b22) && b20.equals("X")) ||
```

```
    (b00.equals(b10) && b10.equals(b20) && b00.equals("X")) ||
```

```
    (b01.equals(b11) && b11.equals(b21) && b01.equals("X")) ||
```

```
    (b02.equals(b12) && b12.equals(b22) && b02.equals("X")) ||
```

```
    (b00.equals(b11) && b11.equals(b22) && b00.equals("X")) ||
```

```
    (b02.equals(b11) && b11.equals(b20) && b02.equals("X"))
```

```
{
```

```
    win = "Winner : "+p1;
```

```
    return true;
```

```
}
```

```
else if((b00.equals(b01) && b01.equals(b02) && b00.equals("O")) ||
```

```
    (b10.equals(b11) && b11.equals(b12) && b10.equals("O")) ||
```

```
    (b20.equals(b21) && b21.equals(b22) && b20.equals("O")) ||
```

```
    (b00.equals(b10) && b10.equals(b20) && b00.equals("O")) ||
```

```
    (b01.equals(b11) && b11.equals(b21) && b01.equals("O")) ||
```

```
    (b02.equals(b12) && b12.equals(b22) && b02.equals("O")) ||
```

```
    (b00.equals(b11) && b11.equals(b22) && b00.equals("O")) ||
```

```
    (b02.equals(b11) && b11.equals(b20) && b02.equals("O"))
```

```
{
```

```
    win = "Winner : "+p2;
```

```
    return true;
```

```
}
```

```
else if((b00 != "" && b01 != "" && b02 != "" && b10 != "" && b11 != "" && b12 != "" && b20 != "" && b21 != ""  
&& b22 != "" ) || count >= 9)
```

```
{
```

```
    win = "Game Over";
```

```
    return true;
```

```
}
```

```
else{
```

```
        return false;
    }
}
```

```
public void btnBackClick(View v){
    finish();
}
}
```

=====Layout Files=====

-----activity_main.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"
```

```
    tools:context=".MainActivity"
```

```
    android:orientation="vertical">
```

```
    <TextView
```

```
        android:text="Tic Tac Toe"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <EditText
```

```
        android:id="@+id/edtPlayer1"
```

```
        android:hint="Player1 Name"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <EditText
```

```
        android:id="@+id/edtPlayer2"
```

```
        android:hint="Player2 Name"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <Button
```

```
        android:text="Play"
```

```
        android:id="@+id/btnPlay"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:text="About Game"
```

```
    android:id="@+id/btnAbout"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

```
<?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"
    tools:context=".AboutActivity"
    android:orientation="vertical">

    <TextView
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:text="About Game"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

        <LinearLayout
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:orientation="vertical" >
```

```
    <TextView
```

```
        android:text="Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game
is very easy to play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is
very easy to play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is very
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play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is very easy to play.Tic Tac Toe Game is very easy to
```



```
<?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"
    tools:context=".WelcomeActivity"
    android:orientation="vertical">

    <TextView
        android:text="Welcome"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <TextView
        android:id="@+id/txtPlayer1"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:text="Player-1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <TextView
        android:id="@+id/txtPlayer2"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:text="Player-2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <TextView
        android:id="@+id/txtWin"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:layout_width="match_parent
```

```
android:layout_height="wrap_content"
```

```
/>
```

```
<Button
```

```
    android:id="@+id/btnStart"
```

```
    android:text="Start Game"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:id="@+id/btnBack"
```

```
    android:text="Back"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

```
<?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"
    tools:context=".GameActivity"
    android:orientation="vertical">

    <TextView
        android:id="@+id/txtP1"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <TextView
        android:id="@+id/txtP2"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <TextView
        android:id="@+id/txtTurn"
        android:text="Next Turn : X"
        android:textSize="20sp"
        android:textColor="@color/purple_200"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <LinearLayout
```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:orientation="horizontal"
android:layout_marginTop="20dp"
android:gravity="center">
```

```
<Button
```

```
    android:id="@+id/btn00"
    android:textColor="@color/white"
    android:textSize="30sp"
    android:height="100sp"
    android:width="100sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:onClick="btnClick"/>
```

```
<Button
```

```
    android:id="@+id/btn01"
    android:textColor="@color/white"
    android:textSize="30sp"
    android:height="100sp"
    android:width="100sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:onClick="btnClick"/>
```

```
<Button
```

```
    android:id="@+id/btn02"
    android:textColor="@color/white"
    android:textSize="30sp"
    android:height="100sp"
    android:width="100sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```
        android:layout_margin="10dp"
        android:onClick="btnClick"/>
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:gravity="center">

    <Button
        android:id="@+id/btn10"
        android:textColor="@color/white"
        android:textSize="30sp"
        android:height="100sp"
        android:width="100sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:onClick="btnClick"/>

    <Button
        android:id="@+id/btn11"
        android:textColor="@color/white"
        android:textSize="30sp"
        android:height="100sp"
        android:width="100sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:onClick="btnClick"/>

    <Button
        android:id="@+id/btn12"
        android:textColor="@color/white"
        android:textSize="30sp"
```

```
    android:height="100sp"
    android:width="100sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:onClick="btnClick"/>
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:gravity="center">
```

```
<Button
    android:id="@+id/btn20"
    android:textColor="@color/white"
    android:textSize="30sp"
    android:height="100sp"
    android:width="100sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:onClick="btnClick"/>
```

```
<Button
    android:id="@+id/btn21"
    android:textColor="@color/white"
    android:textSize="30sp"
    android:height="100sp"
    android:width="100sp"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:onClick="btnClick"/>
```

```
<Button
```

```
android:id="@+id/btn22"  
android:textColor="@color/white"  
android:textSize="30sp"  
android:height="100sp"  
android:width="100sp"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_margin="10dp"  
android:onClick="btnClick"/>
```

```
</LinearLayout>
```

```
<Button
```

```
android:id="@+id/btnBack"  
android:text="Back"  
android:layout_gravity="center"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:layout_margin="10dp"  
android:onClick="btnBackClick"/>
```

```
</LinearLayout>
```


Question-2

2. Create sample application with login module.(Check with static username and password) . On successful login, go to next screen. And on failing login, alert user using Toast.

Also pass username to next screen.

=====AndroidManifest.xml=====

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.q2">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Q2">
        <activity
            android:name=".WelcomeActivity"
            android:exported="true" />
        <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>
```

=====Java files=====

-----MainActivity.java-----

```
package com.example.q2;

import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.text.method.PasswordTransformationMethod;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {

    EditText edtUser,edtPass;
    Button btnLogin,btnEye;
    String user,pass;
    String statisUser="chandani",staticPass="123";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        edtUser = findViewById(R.id.edtUserName);
        edtPass = findViewById(R.id.edtPassword);
        btnLogin = findViewById(R.id.btnLogin);
        btnEye = findViewById(R.id.btnEye);

        btnEye.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if(btnEye.getText().toString().equals("Show")){
                    btnEye.setText("Hide");
                }
            }
        });
    }
}
```

```

        edtPass.setTransformationMethod(null);
    }
    else{
        btnEye.setText("Show");
        edtPass.setTransformationMethod(new PasswordTransformationMethod());
    }
}
});

btnLogin.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View view) {

        user = edtUser.getText().toString();
        pass = edtPass.getText().toString();

        if(user.length() == 0 || pass.length() == 0){

            Toast.makeText(getApplicationContext(), "Please Enter Username and Password",
Toast.LENGTH_SHORT).show();

        }

        else if(user.equals(statisUser) && pass.equals(staticPass)){

            Toast.makeText(getApplicationContext(), "Login Successfully", Toast.LENGTH_SHORT).show();

            Intent i = new Intent(getApplicationContext(),WelcomeActivity.class);

            i.putExtra("user","Username : "+user);

            i.putExtra("pass","Password : "+pass);

            startActivity(i);

        }

        else{

            Toast.makeText(getApplicationContext(), "Please Enter Valid Username and Password",
Toast.LENGTH_SHORT).show();

        }

    }

});
}
}

```

```
package com.example.q2;
```

```
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 WelcomeActivity extends AppCompatActivity {
```

```
    TextView txtUser,txtPass;
```

```
    Button btnBack;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_welcome);
```

```
        txtUser = findViewById(R.id.txtUser);
```

```
        txtPass = findViewById(R.id.txtPass);
```

```
        btnBack = findViewById(R.id.btnBack);
```

```
        Intent i = getIntent();
```

```
        txtUser.setText(i.getStringExtra("user"));
```

```
        txtPass.setText(i.getStringExtra("pass"));
```

```
        btnBack.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View view) {
```

```
                finish();
```

```
            }
```

```
});
```

```
}
```

```
}
```

===== Layout Files =====

-----activity_main.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"
```

```
    tools:context=".MainActivity"
```

```
    android:orientation="vertical">
```

```
    <TextView
```

```
        android:textColor="@color/purple_200"
```

```
        android:textSize="30sp"
```

```
        android:gravity="center"
```

```
        android:text="Login Page"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <EditText
```

```
        android:id="@+id/edtUserName"
```

```
        android:hint="Enter Username"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <EditText
```

```
        android:id="@+id/edtPassword"
```

```
        android:hint="Enter Password"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
```

```
        android:inputType="textPassword"/>
```

```
    <Button
```

```
        android:id="@+id/btnEye"
```

```
        android:text="Show"
```

```
        android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:id="@+id/btnLogin"
```

```
    android:text="LOGIN"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

-----activity_welcome.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"
```

```
    tools:context=".WelcomeActivity"
```

```
    android:orientation="vertical">
```

```
    <TextView
```

```
        android:id="@+id/txtUser"
```

```
        android:textSize="30sp"
```

```
        android:text=""
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <TextView
```

```
        android:id="@+id/txtPass"
```

```
        android:textSize="30sp"
```

```
        android:text=""
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <Button
```

```
        android:id="@+id/btnBack"
```

```
        android:layout_marginTop="50dp"
```

```
        android:text="Back"
```

```
        android:layout_gravity="center"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```


Question-3

3. Create a Railway reservation utility for Android device which will accept detail such as train name, reservation date, time, passenger name , Number of ticket, class of ticket (i.e. SS,SL,CC,1A,2A,3A) etc...

Make use of proper UI: i.e. for name, address use edit text, for train name use single-choice list dialog, for reservation date use date picker dialog, for reservation time use time picker dialog, for passenger name and number of ticket use EditText, Number of ticket only accepts numeric value.

Perform following task:

1. Application have a next button, On click of next button entered detail should display to the next activity. (Hints: pass all data to next activity using intent)

=====AndroidManifest.xml=====

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

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.q3">
```

```
<application
```

```
    android:allowBackup="true"
```

```
    android:icon="@mipmap/ic_launcher"
```

```
    android:label="@string/app_name"
```

```
    android:roundIcon="@mipmap/ic_launcher_round"
```

```
    android:supportRtl="true"
```

```
    android:theme="@style/Theme.Q3">
```

```
<activity
```

```
    android:name=".WelcomeActivity"
```

```
    android:exported="true" />
```

```
<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>

=====java files=====

-----MainActivity.java-----

```
package com.example.q3;
```

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

```
import android.app.DatePickerDialog;
```

```
import android.app.TimePickerDialog;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.AdapterView;
```

```
import android.widget.Button;
```

```
import android.widget.DatePicker;
```

```
import android.widget.EditText;
```

```
import android.widget.Spinner;
```

```
import android.widget.TimePicker;
```

```
import java.util.Calendar;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText edtDate,edtTime,edtName,edtAddress,edtNoOfTickets;
```

```
    Spinner spnTrainName,spnCoach;
```

```
    Button btnSubmit;
```

```
    String train[] = new String[]{"aaa","bbb","ccc","ddd"};
```

```
    String coach[] = new String[]{"SS","SL","A1"};
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```

edtDate = findViewById(R.id.edtDate);
edtTime = findViewById(R.id.edtTime);
edtName = findViewById(R.id.edtName);
edtAddress = findViewById(R.id.edtAddress);
edtNoOfTickets = findViewById(R.id.edtNoOfTickets);
spnTrainName = findViewById(R.id.spnTrainName);
spnCoach = findViewById(R.id.spnCoach);
btnSubmit = findViewById(R.id.btnSubmit);

ArrayAdapter aaTrain = new ArrayAdapter(getApplicationContext(),R.layout.text_view_layout,train);
spnTrainName.setAdapter(aaTrain);

ArrayAdapter aaCoach = new ArrayAdapter(getApplicationContext(),R.layout.text_view_layout,coach);
spnCoach.setAdapter(aaCoach);

btnSubmit.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent i = new Intent(getApplicationContext(),WelcomeActivity.class);
        i.putExtra("train",spnTrainName.getSelectedItem().toString());
        i.putExtra("date",edtDate.getText().toString());
        i.putExtra("time",edtTime.getText().toString());
        i.putExtra("name",edtName.getText().toString());
        i.putExtra("address",edtAddress.getText().toString());
        i.putExtra("nooftickets",edtNoOfTickets.getText().toString());
        i.putExtra("coach",spnCoach.getSelectedItem().toString());

        startActivity(i);
    }
});
}

```

```

public void setDate(View v) {

    Calendar cal = Calendar.getInstance();

    int cyear = cal.get(Calendar.YEAR);
    int cmonth = cal.get(Calendar.MONTH);
    int cdayofmonth = cal.get(Calendar.DAY_OF_MONTH);

    DatePickerDialog dpd = new DatePickerDialog(this, new DatePickerDialog.OnDateSetListener() {

        @Override

        public void onDateSet(DatePicker datePicker, int year, int month, int day) {

            edtDate.setText(day+"/"+(month+1)+"/"+year);

        }

    }, cyear, cmonth, cdayofmonth);

    dpd.show();
}

```

```

public void setTime(View v){

    Calendar c = Calendar.getInstance();

    int chour = c.get(Calendar.HOUR);
    int cminute = c.get(Calendar.MINUTE);

    TimePickerDialog tpd = new TimePickerDialog(this, new TimePickerDialog.OnTimeSetListener() {

        @Override

        public void onTimeSet(TimePicker timePicker, int hour, int minute) {

            edtTime.setText(hour+" : "+minute);

        }

    },chour,cmminute,true);

    tpd.show();

}
}

```

```
package com.example.q3;
```

```
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;
```

```
import org.w3c.dom.Text;
```

```
public class WelcomeActivity extends AppCompatActivity {
```

```
    TextView txtTrainName,txtDate,txtTime,txtName,txtAddress,txtNoOfTickets,txtCoach;
```

```
    Button btnBack;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_welcome);
```

```
        txtTrainName = findViewById(R.id.txtTrainName);
```

```
        txtDate = findViewById(R.id.txtDate);
```

```
        txtTime = findViewById(R.id.txtTime);
```

```
        txtName = findViewById(R.id.txtName);
```

```
        txtAddress = findViewById(R.id.txtAddress);
```

```
        txtNoOfTickets = findViewById(R.id.txtNoOfTickets);
```

```
        txtCoach = findViewById(R.id.txtCoach);
```

```
        btnBack = findViewById(R.id.btnBack);
```

```
        Intent i = getIntent();
```

```
txtTrainName.setText(i.getStringExtra("train"));
txtDate.setText(i.getStringExtra("date"));
txtTime.setText(i.getStringExtra("time"));
txtName.setText(i.getStringExtra("name"));
txtAddress.setText(i.getStringExtra("address"));
txtNoOfTickets.setText(i.getStringExtra("nooftickets"));
txtCoach.setText(i.getStringExtra("coach"));

btnBack.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        finish();
    }
});

}

}
```

=====layout files=====

-----activity_main.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"
```

```
    tools:context=".MainActivity"
```

```
    android:orientation="vertical">
```

```
    <TextView
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:layout_gravity="center"
```

```
        android:textSize="30sp"
```

```
        android:text="Ticket Reservation"/>
```

```
    <LinearLayout
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
```

```
        android:orientation="horizontal">
```

```
        <TextView
```

```
            android:text="select Train : "
```

```
            android:textSize="20sp"
```

```
            android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content"/>
```

```
        <Spinner
```

```
            android:id="@+id/spnTrainName"
```

```
            android:textSize="20sp"
```

```
            android:layout_width="match_parent"
```

```
            android:layout_height="wrap_content"/>
```

```
    </LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
```



```
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="select Date : "
        android:textSize="20sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <EditText
        android:id="@+id/edtDate"
        android:textSize="20sp"
        android:layout_width="200sp"
        android:layout_height="wrap_content"
        android:onClick="setDate"/>
    <ImageButton
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="setDate"
        app:srcCompat="@android:drawable/ic_input_add" />
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="select Time : "
        android:textSize="20sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
    />
    <EditText
        android:id="@+id/edtTime"
        android:textSize="20sp"
        android:layout_width="200sp"
        android:layout_height="wrap_content"
```

```

        android:onClick="setTime"/>
<ImageButton
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:onClick="setTime"
    app:srcCompat="@android:drawable/ic_input_add" />
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="Pasenger Name : "
        android:textSize="20sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <EditText
        android:id="@+id/edtName"
        android:textSize="20sp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="Address : "
        android:textSize="20sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <EditText
        android:id="@+id/edtAddress"
        android:textSize="20sp"

```

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="No of Tickets : "
        android:textSize="20sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <EditText
        android:id="@+id/edtNoOfTickets"
        android:textSize="20sp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:inputType="numberDecimal"/>
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="select Coach : "
        android:textSize="20sp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <Spinner
        android:id="@+id/spnCoach"
        android:textSize="20sp"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

<Button

android:id="@+id/btnSubmit"

android:text="Submit"

android:textSize="30sp"

android:layout_gravity="center"

android:layout_width="wrap_content"

android:layout_height="wrap_content"/>

</LinearLayout>

```
<?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"
    tools:context=".WelcomeActivity"
    android:orientation="vertical">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:textSize="30sp"
        android:text="Ticket Reservation Details"/>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">

        <TextView
            android:text="Train : "
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"/>

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

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal">

        <TextView
```

```
        android:text="Date : "
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
<TextView
    android:id="@+id/txtDate"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="Time : "
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <TextView
        android:id="@+id/txtTime"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:text="Pasenger Name : "
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
    <TextView
        android:id="@+id/txtName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>
</LinearLayout>
```

```
<LinearLayout

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:orientation="horizontal">

    <TextView

        android:text="Address : "

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"/>

    <TextView

        android:id="@+id/txtAddress"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"/>

</LinearLayout>
```

```
<LinearLayout

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:orientation="horizontal">

    <TextView

        android:text="No of Tickets : "

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"/>

    <TextView

        android:id="@+id/txtNoOfTickets"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:inputType="numberDecimal"/>

</LinearLayout>
```

```
<LinearLayout

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:orientation="horizontal">

    <TextView

        android:text="select Coach : "

        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"/>
<TextView
    android:id="@+id/txtCoach"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
</LinearLayout>
<Button
    android:id="@+id/btnBack"
    android:text="Back"
    android:layout_gravity="center"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"/>
</LinearLayout>
```


For spinner

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

```
<TextView xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent">
```

```
</TextView>
```

Question-4

4. Develop an application with login facility (you can use either SQLite or MySQL database) . On successful login, go to next screen with message Welcome <UserName>. And on failing login, alert user. Also Provide the facility to save username and password. (Hint : Use SharedPreferences)

=====AndroidManifest.xml=====

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.q4">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Q4">
        <activity
            android:name=".WelcomeActivity"
            android:exported="true" />
        <activity
            android:name=".RegisterActivity"
            android:exported="true" />
        <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>
```

=====java files=====

-----DBHelper.java-----

```
package com.example.q4;
```

```
import android.content.Context;
```

```
import android.database.sqlite.SQLiteDatabase;
```

```
import android.database.sqlite.SQLiteOpenHelper;
```

```
import androidx.annotation.Nullable;
```

```
public class DBHelper extends SQLiteOpenHelper {
```

```
    String createSql = "create table user(_id integer primary key autoincrement,username varchar,password varchar)";
```

```
    public DBHelper(Context context) {
```

```
        super(context, "userdb.db", null, 1);
```

```
    }
```

```
    @Override
```

```
    public void onCreate(SQLiteDatabase sqLiteDatabase) {
```

```
        sqLiteDatabase.execSQL(createSql);
```

```
    }
```

```
    @Override
```

```
    public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {
```

```
    }
```

```
}
```

```
package com.example.q4;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.content.SharedPreferences;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.text.method.PasswordTransformationMethod;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText edtUser,edtPass;
    Button btnLogin,btnRegister,btnEye;
    CheckBox chkRemember;

    String user,pass;

    DBHelper dbh;

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

        edtUser = findViewById(R.id.edtUser);
```

```
edtPass = findViewById(R.id.edtPass);  
btnLogin = findViewById(R.id.btnLogin);  
btnRegister = findViewById(R.id.btnRegister);  
btnEye = findViewById(R.id.btnEye);  
chkRemember = findViewById(R.id.chkRemember);
```

```
SharedPreferences sp = getSharedPreferences("appsettings",MODE_PRIVATE);
```

```
edtUser.setText(sp.getString("username",null));  
edtPass.setText(sp.getString("password",null));
```

```
btnEye.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        if(btnEye.getText().toString().equals("Show")){  
            btnEye.setText("Hide");  
            edtPass.setTransformationMethod(null);  
        }  
        else{  
            btnEye.setText("Show");  
            edtPass.setTransformationMethod(new PasswordTransformationMethod());  
        }  
    }  
});
```

```
btnLogin.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        user = edtUser.getText().toString();  
        pass = edtPass.getText().toString();  
  
        if(user.length() == 0 || pass.length() == 0){  
            Toast.makeText(getApplicationContext(), "Please enter Username and Password",  
Toast.LENGTH_SHORT).show();
```

```

    }
    else{
        dbh = new DBHelper(getApplicationContext());

        SQLiteDatabase sdb = dbh.getReadableDatabase();

        String selectSql = "select * from user where username = ? and password = ?";
        String selectArgs[] = new String[]{user,pass};

        Cursor c = sdb.rawQuery(selectSql,selectArgs);

        int count = c.getCount();

        if(count == 0){
            Toast.makeText(getApplicationContext(), "Username Password Mismatched",
Toast.LENGTH_SHORT).show();
        }
        else{
            if(chkRemember.isChecked() == true){
                SharedPreferences.Editor ed = sp.edit();

                ed.putString("username",user);

                ed.putString("password",pass);

                ed.commit();
            }

            Intent i = new Intent(getApplicationContext(),WelcomeActivity.class);

            i.putExtra("user",user);

            startActivity(i);
        }
    }
}
});

```

```

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

```

```
public void onClick(View view) {  
    Intent i = new Intent(getApplicationContext(), RegisterActivity.class);  
    startActivity(i);  
}  
});  
  
}  
}
```

```
package com.example.q4;

import androidx.appcompat.app.AppCompatActivity;

import android.content.ContentValues;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.text.method.PasswordTransformationMethod;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class RegisterActivity extends AppCompatActivity {

    Button btnBack,btnNewRegister,btnEye;
    EditText edtUser,edtPass;

    String user,pass;

    DBHelper dbh;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_register);

        btnBack = findViewById(R.id.btnBack);
        btnEye = findViewById(R.id.btnEye);
        btnNewRegister = findViewById(R.id.btnNewRegister);

        edtUser = findViewById(R.id.edtUser);
```



```
edtPass = findViewById(R.id.edtPass);
```

```
btnEye.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        if(btnEye.getText().toString().equals("Show")){  
            btnEye.setText("Hide");  
            edtPass.setTransformationMethod(null);  
        }  
        else{  
            btnEye.setText("Show");  
            edtPass.setTransformationMethod(new PasswordTransformationMethod());  
        }  
    }  
});
```

```
btnNewRegister.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        user = edtUser.getText().toString();  
        pass = edtPass.getText().toString();  
  
        if(user.length() == 0 || pass.length() == 0){  
            Toast.makeText(getApplicationContext(), "Please enter Username and password",  
Toast.LENGTH_SHORT).show();  
        }  
        else{  
            dbh = new DBHelper(getApplicationContext());  
            SQLiteDatabase sdb = dbh.getWritableDatabase();  
  
            ContentValues cv = new ContentValues();  
            cv.put("username",user);  
            cv.put("password",pass);
```

```
long ans = sdb.insert("user",null,cv);

if(ans <= 0){
    Toast.makeText(getApplicationContext(), "Error in Insertion", Toast.LENGTH_SHORT).show();
}
else{
    Toast.makeText(getApplicationContext(), "Registered Successfully..Now Login to system",
Toast.LENGTH_SHORT).show();
}
}
}
});

btnBack.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        finish();
    }
});
}
}
```

```
package com.example.q4;

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 WelcomeActivity extends AppCompatActivity {

    TextView txtUser;

    Button btnBack;

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

        txtUser = findViewById(R.id.txtUser);
        btnBack = findViewById(R.id.btnBack);

        Intent i = getIntent();
        txtUser.setText("Welcome "+i.getStringExtra("user"));

        btnBack.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                finish();
            }
        });
    }
}
```

=====Layout Files=====

-----activity_main.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"
```

```
    tools:context=".MainActivity"
```

```
    android:orientation="vertical">
```

```
    <TextView
```

```
        android:textSize="40sp"
```

```
        android:layout_gravity="center"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:text="Login to system"/>
```

```
    <EditText
```

```
        android:id="@+id/edtUser"
```

```
        android:hint="Enter Username"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"/>
```

```
    <EditText
```

```
        android:id="@+id/edtPass"
```

```
        android:hint="Enter Password"
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
```

```
        android:inputType="textPassword"/>
```

```
    <Button
```

```
        android:id="@+id/btnEye"
```

```
        android:text="Show"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"/>
```

```
<CheckBox
```

```
    android:id="@+id/chkRemember"
    android:text="Remember Me"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:id="@+id/btnLogin"
    android:text="Login"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
<Button
```

```
    android:id="@+id/btnRegister"
    android:text="Register"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
```

```
</LinearLayout>
```

```
<?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"
    tools:context=".RegisterActivity"
    android:orientation="vertical">

    <TextView
        android:textSize="40sp"
        android:layout_gravity="center"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Register to system"/>

    <EditText
        android:id="@+id/edtUser"
        android:hint="Enter Username"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <EditText
        android:id="@+id/edtPass"
        android:hint="Enter Password"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:inputType="textPassword"/>

    <Button
        android:id="@+id/btnEye"
        android:text="Show"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>
```

<Button

android:id="@+id/btnNewRegister"

android:text="New Register"

android:layout_width="match_parent"

android:layout_height="wrap_content"/>

<Button

android:id="@+id/btnBack"

android:text="Back"

android:layout_width="match_parent"

android:layout_height="wrap_content"/>

</LinearLayout>

```
<?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"
    tools:context=".WelcomeActivity"
    android:orientation="vertical">

    <TextView
        android:id="@+id/txtUser"
        android:text="Welcome "
        android:layout_gravity="center"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"/>

    <Button
        android:id="@+id/btnBack"
        android:text="Back"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"/>

</LinearLayout>
```