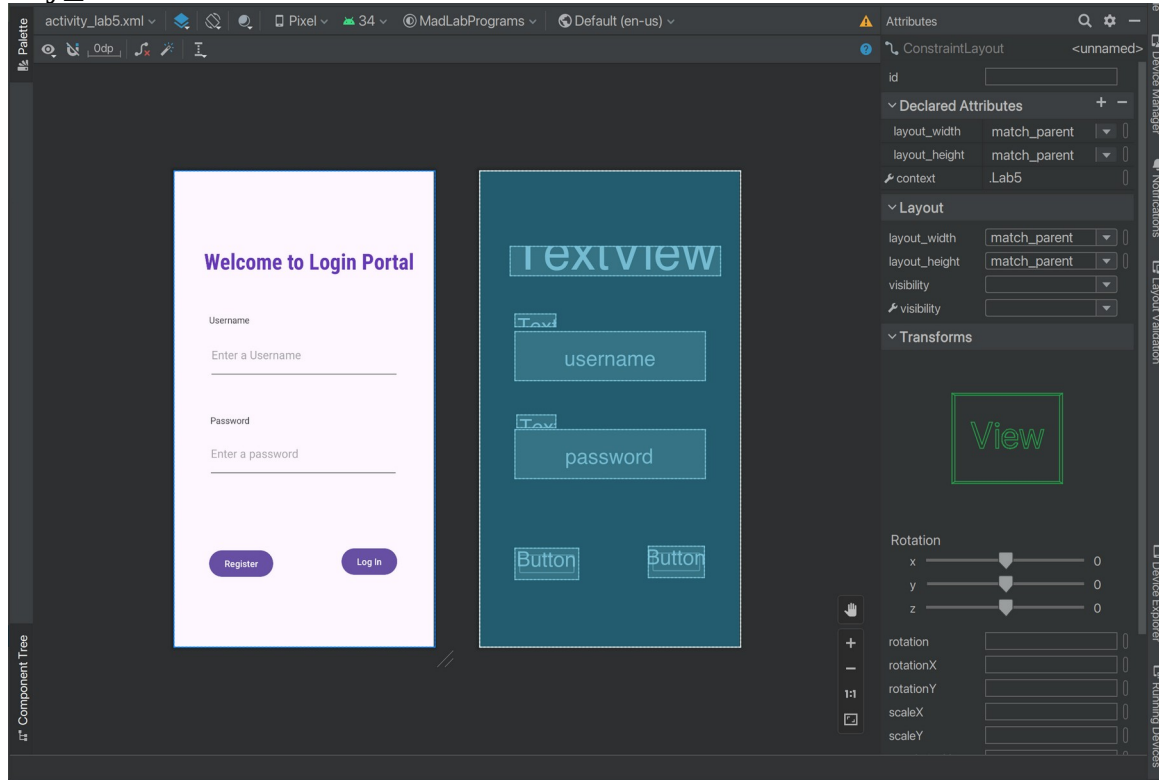


Program 5

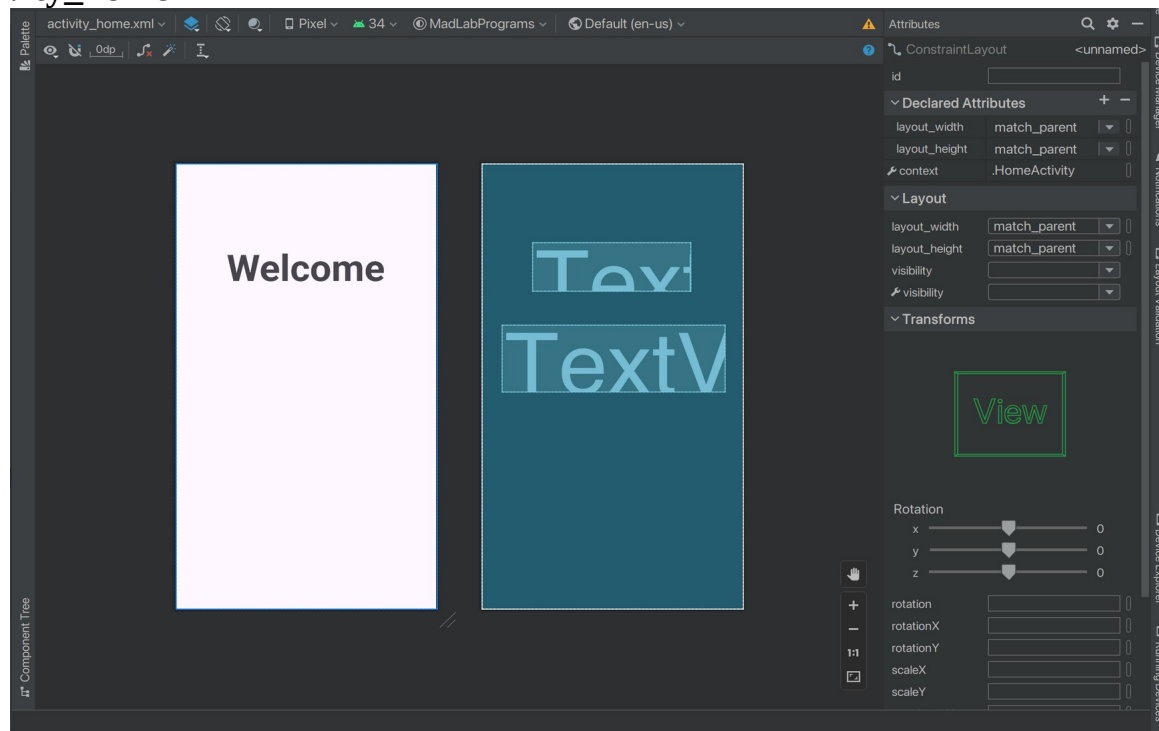
Implement an application that will create a database with a table of user credentials and create a Login portal system

Design

activity_main



activity_home



Xml Code

activity_main.xml

```
<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="48dp"
    android:layout_marginTop="116dp"
    android:fontFamily="sans-serif-condensed"
    android:text="Welcome to Login Portal"
    android:textColor="#673AB7"
    android:textSize="34sp"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/username"
    android:layout_width="300dp"
    android:layout_height="75dp"
    android:layout_marginStart="56dp"
    android:layout_marginTop="7dp"
    android:ems="10"
    android:hint="Enter a Username"
    android:inputType="text"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView2" />

<EditText
    android:id="@+id/password"
    android:layout_width="300dp"
    android:layout_height="75dp"
    android:layout_marginStart="55dp"
    android:layout_marginTop="4dp"
    android:ems="10"
    android:hint="Enter a password"
    android:inputType="textPassword"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView3" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="56dp"
    android:layout_marginTop="58dp"
    android:text="Username"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView" />
```

```
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="58dp"
    android:layout_marginTop="53dp"
    android:text="Password"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/username" />
```

```
<Button
    android:id="@+id/register"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="56dp"
    android:layout_marginTop="107dp"
    android:text="Register"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/password" />
```

```
<Button
    android:id="@+id/login"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="108dp"
    android:layout_marginTop="104dp"
    android:text="Log In"
    app:layout_constraintStart_toEndOf="@+id/register"
    app:layout_constraintTop_toBottomOf="@+id/password" />
```

activity_home.xml

```
<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="80dp"
    android:layout_marginTop="129dp"
    android:gravity="center_horizontal"
    android:text="Welcome"
    android:textSize="60sp"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

```
<TextView
    android:id="@+id/displayName"
    android:layout_width="352dp"
    android:layout_height="109dp"
    android:layout_marginStart="32dp"
```

```

android:layout_marginTop="56dp"
android:fontFamily="sans-serif-medium"
android:gravity="center_horizontal"
android:textAlignment="center"
android:textSize="60sp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/textView4" />

```

Java Code

DbHelper.java

```

public class DbHelper extends SQLiteOpenHelper {
    public static final String DBName="register.db";
    public DbHelper(Lab5 context) {
        super(context, DBName, null, 1);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("create table users (username TEXT primary key , password TEXT)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        db.execSQL("drop table if exists users");
        onCreate(db);
    }

    public boolean insertData(String username, String password){
        SQLiteDatabase myDB=this.getWritableDatabase();
        ContentValues cv=new ContentValues();
        cv.put("username",username);
        cv.put("password",password);
        long result=myDB.insert("users",null,cv);
        myDB.close();
        if (result!=-1){
            return false;
        }else return true;
    }

    public boolean validateData(String username, String password){
        SQLiteDatabase myDB=this.getReadableDatabase();
        Cursor c= myDB.rawQuery( "select username,password from users where username=? and password=?", new String[]{username,password});
        if (c.getCount(>0){
            return true;
        }else return false;
    }
}

```

MainActivity.java

```
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_lab5);
        Button register=findViewById(R.id.register);
        Button login=findViewById(R.id.login);
        EditText username=findViewById(R.id.username);
        EditText password=findViewById(R.id.password);
        Intent i = new Intent(getApplicationContext(),HomeActivity.class);
        DbHelper db= new DbHelper(this);

        register.setOnClickListener(v->{
            String usernameValue=username.getText().toString();
            String passwordValue=password.getText().toString();
            if (usernameValue.isEmpty() || passwordValue.isEmpty()){
                Toast.makeText(this, "Username or Password is Blank",
Toast.LENGTH_SHORT).show();
            }
            else {
                Log.d("myTag",usernameValue);
                if (db.insertData(usernameValue,passwordValue)){
                    Toast.makeText(this, usernameValue+ "Registered Successfully",
Toast.LENGTH_SHORT).show();
                }
                else {
                    Toast.makeText(this, usernameValue+ "User Already Exists",
Toast.LENGTH_SHORT).show();
                }
            }
        });

        login.setOnClickListener(v->{
            String usernameValue=username.getText().toString();
            String passwordValue=password.getText().toString();
            if (db.validateData(usernameValue,passwordValue)){
                Toast.makeText(this, usernameValue+ "Logged In", Toast.LENGTH_SHORT).show();
                i.putExtra("username",usernameValue);
                startActivity(i);
            }
            else {
                Toast.makeText(this, usernameValue+ "Wrong credentials",
Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

HomeActivity.java

```
public class HomeActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);
        TextView displayName=findViewById(R.id.displayName);
        Intent i=getIntent();
        String name=i.getStringExtra("username");
        displayName.setText(name);

    }

}
```