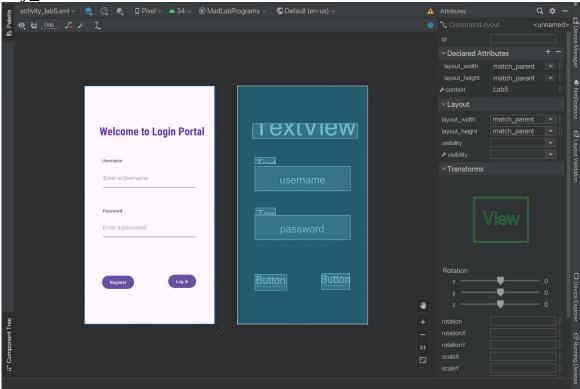
Program 5

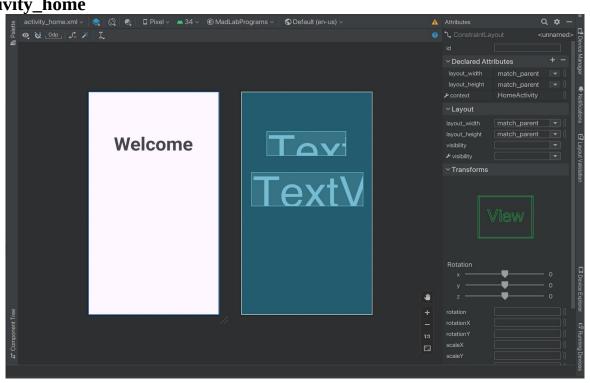
Implement an application that will create a database with a table of user credentials and create a Login portal system

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

DbHelpper.java

```
public class DbHelpper extends SQLiteOpenHelper {
  public static final String DBName="register.db";
  public DbHelpper(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);
    DbHelpper db= new DbHelpper(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);
    }
}
```