Lab 2:

**MainActivity.java:**

package com.example.lab2\_screen;  
  
 import android.content.pm.ActivityInfo;  
 import android.os.Bundle;  
 import android.view.View;  
 import android.widget.Button;  
 import android.widget.Toast;  
  
 import androidx.appcompat.app.AppCompatActivity;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 Button l = findViewById(R.id.land);  
 Button p = findViewById(R.id.port);  
  
 l.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 setRequestedOrientation(ActivityInfo.SCREEN\_ORIENTATION\_LANDSCAPE);  
 Toast.makeText(MainActivity.this, "Hey! We are in landscape orientation", Toast.LENGTH\_SHORT).show();  
 }  
 });  
  
 p.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 setRequestedOrientation(ActivityInfo.SCREEN\_ORIENTATION\_PORTRAIT);  
 Toast.makeText(MainActivity.this, "Hey! We are in portrait orientation", Toast.LENGTH\_SHORT).show();  
 }  
 });  
 }  
}

**activity\_main.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
  
 <Button  
 android:id="@+id/port"  
 android:layout\_width="108dp"  
 android:layout\_height="67dp"  
 android:text="Portrait"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.406" />  
  
 <Button  
 android:id="@+id/land"  
 android:layout\_width="132dp"  
 android:layout\_height="60dp"  
 android:layout\_marginEnd="140dp"  
 android:text="Landscape"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.542" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

Lab 1:

**activity\_main.xml:**

<?xml version="1.0" encoding="utf-8"?>  
<androidx.constraintlayout.widget.ConstraintLayout 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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity">  
  
  
 <TextView  
 android:id="@+id/textView"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Hello World!"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

MainActivity.java:

package com.example.hello\_world;  
  
import android.os.Bundle;  
  
import androidx.activity.EdgeToEdge;  
import androidx.appcompat.app.AppCompatActivity;  
import androidx.core.graphics.Insets;  
import androidx.core.view.ViewCompat;  
import androidx.core.view.WindowInsetsCompat;  
  
public class MainActivity extends AppCompatActivity {  
  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 EdgeToEdge.enable(this);  
 setContentView(R.layout.activity\_main);  
 ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {  
 Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());  
 v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);  
 return insets;  
 });  
 }  
}