DATABASE  
<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:padding="20dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <EditText  
 android:id="@+id/editTextName"  
 android:hint="Name"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
  
 <EditText  
 android:id="@+id/editTextAge"  
 android:hint="Age"  
 android:inputType="number"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
  
 <EditText  
 android:id="@+id/editTextAddress"  
 android:hint="Address"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
  
 <EditText  
 android:id="@+id/editTextCity"  
 android:hint="City"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
  
 <Button  
 android:id="@+id/buttonSave"  
 android:text="Save"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"/>  
  
 <Button  
 android:id="@+id/buttonView"  
 android:text="View Details"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"/>  
  
 <TextView  
 android:id="@+id/textViewData"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"  
 android:textSize="16sp"/>  
  
</LinearLayout>

ACTIVITY.KT

package com.example.fulldatabase  
  
import android.os.Bundle  
import android.widget.Button  
import android.widget.EditText  
import android.widget.Toast  
import android.widget.TextView  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
  
 private lateinit var db: DatabaseHelper  
  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 db = DatabaseHelper(this)  
  
 val nameEditText = findViewById<EditText>(R.id.*editTextName*)  
 val ageEditText = findViewById<EditText>(R.id.*editTextAge*)  
 val addressEditText = findViewById<EditText>(R.id.*editTextAddress*)  
 val cityEditText = findViewById<EditText>(R.id.*editTextCity*)  
 val saveButton = findViewById<Button>(R.id.*buttonSave*)  
 val viewButton = findViewById<Button>(R.id.*buttonView*)  
 val textViewData = findViewById<TextView>(R.id.*textViewData*)  
  
 saveButton.setOnClickListener **{** val name = nameEditText.*text*.toString()  
 val age = ageEditText.*text*.toString().*toIntOrNull*()  
 val address = addressEditText.*text*.toString()  
 val city = cityEditText.*text*.toString()  
  
 if (name.*isNotEmpty*() && age != null && address.*isNotEmpty*() && city.*isNotEmpty*()) {  
 val inserted = db.insertData(name, age, address, city)  
 if (inserted) {  
 Toast.makeText(this, "Data Saved Successfully", Toast.*LENGTH\_SHORT*).show()  
 } else {  
 Toast.makeText(this, "Error Saving Data", Toast.*LENGTH\_SHORT*).show()  
 }  
 } else {  
 Toast.makeText(this, "Please Fill All Fields", Toast.*LENGTH\_SHORT*).show()  
 }  
 **}** viewButton.setOnClickListener **{** val cursor = db.getAllData()  
 if (cursor.*count* == 0) {  
 textViewData.*text* = "No Data Found"  
 return@setOnClickListener  
 }  
  
 val buffer = StringBuffer()  
 while (cursor.moveToNext()) {  
 buffer.append("ID: ${cursor.getInt(0)}\n")  
 buffer.append("Name: ${cursor.getString(1)}\n")  
 buffer.append("Age: ${cursor.getInt(2)}\n")  
 buffer.append("Address: ${cursor.getString(3)}\n")  
 buffer.append("City: ${cursor.getString(4)}\n\n")  
 }  
  
 textViewData.*text* = buffer.toString()  
 **}** }  
 }

databasehelper

package com.example.fulldatabase  
  
import android.content.ContentValues  
import android.content.Context  
import android.database.Cursor  
import android.database.sqlite.SQLiteDatabase  
import android.database.sqlite.SQLiteOpenHelper  
  
class DatabaseHelper(context: Context) : SQLiteOpenHelper(context, "PersonalDetails.db", null, 1) {  
  
 override fun onCreate(db: SQLiteDatabase) {  
 db.execSQL(  
 "CREATE TABLE personal\_details (" +  
 "id INTEGER PRIMARY KEY AUTOINCREMENT," +  
 "name TEXT," +  
 "age INTEGER," +  
 "address TEXT," +  
 "city TEXT)"  
 )  
 }  
  
 override fun onUpgrade(db: SQLiteDatabase, oldVersion: Int, newVersion: Int) {  
 db.execSQL("DROP TABLE IF EXISTS personal\_details")  
 onCreate(db)  
 }  
  
 fun insertData(name: String, age: Int, address: String, city: String): Boolean {  
 val db = this.*writableDatabase* val contentValues = ContentValues()  
 contentValues.put("name", name)  
 contentValues.put("age", age)  
 contentValues.put("address", address)  
 contentValues.put("city", city)  
 val result = db.insert("personal\_details", null, contentValues)  
 return result != -1L  
 }  
  
 // Fetch all records  
 fun getAllData(): Cursor {  
 val db = this.*readableDatabase* return db.rawQuery("SELECT \* FROM personal\_details", null)  
 }  
}

mediaplayer

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:padding="30dp"  
 android:gravity="center"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent">  
  
 <Button  
 android:id="@+id/playButton"  
 android:text="Play"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="20dp"/>  
  
 <Button  
 android:id="@+id/stopButton"  
 android:text="Stop"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"/>  
</LinearLayout>

Activity

package com.example.music  
  
  
import android.media.MediaPlayer  
import android.os.Bundle  
import android.widget.Button  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
  
 private lateinit var mediaPlayer: MediaPlayer  
  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 // Initialize MediaPlayer once  
 mediaPlayer = MediaPlayer.create(this, R.raw.*sample*)  
  
 val playButton = findViewById<Button>(R.id.*playButton*)  
 val stopButton = findViewById<Button>(R.id.*stopButton*)  
  
 playButton.setOnClickListener **{** if (!mediaPlayer.*isPlaying*) {  
 mediaPlayer.start()  
 }  
 **}** stopButton.setOnClickListener **{** if (mediaPlayer.*isPlaying*) {  
 mediaPlayer.pause()  
 mediaPlayer.seekTo(0)  
 }  
 **}** }  
  
 override fun onDestroy() {  
 super.onDestroy()  
 if (this::mediaPlayer.*isInitialized*) {  
 mediaPlayer.release()  
 }  
 }  
}

grid view

<?xml version="1.0" encoding="utf-8"?>  
<GridView  
 xmlns:android="http://schemas.android.com/apk/res/android"  
 android:id="@+id/gridView"  
 android:numColumns="2"  
 android:verticalSpacing="20dp"  
 android:horizontalSpacing="20dp"  
 android:padding="20dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:gravity="center"/>

package com.example.gridview  
  
  
import android.os.Bundle  
import android.widget.ArrayAdapter  
import android.widget.GridView  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
  
 private val subjects = *arrayOf*(  
 "Math", "Science", "History", "English",  
 "Physics", "Chemistry", "Biology", "Computer"  
 )  
  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
  
 val gridView = findViewById<GridView>(R.id.*gridView*)  
  
 val adapter = ArrayAdapter(this, android.R.layout.*simple\_list\_item\_1*, subjects)  
 gridView.*adapter* = adapter  
 }  
}

listview

package com.example.listviewexample  
  
import android.os.Bundle  
import android.widget.ArrayAdapter  
import android.widget.ListView  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
  
 private val subjects = arrayOf(  
 "Math", "Science", "History", "English",  
 "Physics", "Chemistry", "Biology", "Computer"  
 )  
  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.activity\_main)  
  
 val listView = findViewById<ListView>(R.id.listView)  
  
 val adapter = ArrayAdapter(this, android.R.layout.simple\_list\_item\_1, subjects)  
 listView.adapter = adapter  
 }  
}

ADMIN LOGIN

package com.example.project7  
  
import android.os.Bundle  
import android.widget.\*  
import androidx.appcompat.app.AppCompatActivity  
  
class MainActivity : AppCompatActivity() {  
 private var attemptCount = 3  
 private val correctUsername = "admin"  
 private val correctPassword = "1234"  
 override fun onCreate(savedInstanceState: Bundle?) {  
 super.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
 val usernameEditText = findViewById<EditText>(R.id.*username*)  
 val passwordEditText = findViewById<EditText>(R.id.*password*)  
 val loginButton = findViewById<Button>(R.id.*loginButton*)  
 val attemptsTextView = findViewById<TextView>(R.id.*attemptsTextView*)  
  
 loginButton.setOnClickListener **{** val username = usernameEditText.*text*.toString()  
 val password = passwordEditText.*text*.toString()  
  
 if (username == correctUsername && password == correctPassword) {  
 Toast.makeText(this, "Login Successful!", Toast.*LENGTH\_SHORT*).show()  
 // You can navigate to another activity here  
 } else {  
 attemptCount--  
 Toast.makeText(this, "Invalid credentials", Toast.*LENGTH\_SHORT*).show()  
 attemptsTextView.*text* = "Attempts left: $attemptCount"  
  
 if (attemptCount == 0) {  
 loginButton.*isEnabled* = false  
 Toast.makeText(this, "Login Disabled!", Toast.*LENGTH\_LONG*).show()  
 }  
 }  
 **}** }  
}

**XMLFILE:-**

<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 android:orientation="vertical"  
 android:padding="20dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:gravity="center">  
  
 <EditText  
 android:id="@+id/username"  
 android:hint="Username"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"/>  
  
 <EditText  
 android:id="@+id/password"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"/>  
  
 <Button  
 android:id="@+id/loginButton"  
 android:text="Login"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="20dp"/>  
  
 <TextView  
 android:id="@+id/attemptsTextView"  
 android:text="Attempts left: 3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="10dp"/>  
</LinearLayout>

PROGRAM1 TOAST LIFE CYCLE

package com.example.project1

import android.os.Bundle import android.widget.Toast

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val toast = Toast.makeText(*applicationContext*, "onCreate Called", Toast.*LENGTH\_LONG*).show()

}

override fun onStart() { super.onStart()

val toast = Toast.makeText(*applicationContext*, "onStart Called", Toast.*LENGTH\_LONG*).show()

}

override fun onRestart() { super.onRestart()

val toast = Toast.makeText(*applicationContext*, "onRestart Called", Toast.*LENGTH\_LONG*).show()

}

override fun onPause() { super.onPause()

val toast = Toast.makeText(*applicationContext*, "onPause Called", Toast.*LENGTH\_LONG*).show()

}

override fun onResume() { super.onResume()

val toast = Toast.makeText(*applicationContext*, "onResume Called", Toast.*LENGTH\_LONG*).show()

}

override fun onStop() { super.onStop()

val toast = Toast.makeText(*applicationContext*, "onStop Called", Toast.*LENGTH\_LONG*).show()

}

override fun onDestroy() { super.onDestroy()

val toast = Toast.makeText(*applicationContext*, "onDestroy Called", Toast.*LENGTH\_LONG*).show()

}

}

PROGRAM 2 BUTTON

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)

xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/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/textView2" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="My color!" android:textColor="@color/blue" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

<TextView

android:id="@+id/textView" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Dr.Shefali" android:textColor="@color/black" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.524" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.306" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.app

import androidx.appcompat.app.AppCompatActivity

package com.example.project2

import android.graphics.Color import android.os.Bundle import android.widget.TextView

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val myTxt = findViewById<TextView>(R.id.*textView2*) myTxt.setTextColor(Color.parseColor("#0F9D58"))

}

}

import android.os.Bundle import android.widget.Button import android.widget.Toast

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.activity\_main) findViewById<Button>(R.id.button)

.setOnClickListener()

**{**

val toast = Toast.makeText(applicationContext, "HELLO WOLRD", Toast.LENGTH\_LONG).show()

**}**

}

}

PROGRAM 3 MENU

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)

xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/main" android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">

<androidx.appcompat.widget.Toolbar android:id="@+id/toolbar" android:layout\_width="match\_parent" android:layout\_height="?attr/actionBarSize" android:layout\_marginTop="88dp" android:background="?attr/colorPrimary" app:layout\_constraintTop\_toTopOf="parent" app:title="Options Menu Demo" tools:layout\_editor\_absoluteX="0dp" />

<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>

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

<menu xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)>

<item

android:id="@+id/option\_1" android:title="Option 1" />

<item

android:id="@+id/option\_2" android:title="Option 2" />

<item

android:id="@+id/option\_3" android:title="Option 3" />

</menu>

package com.example.sol3

import androidx.appcompat.app.AppCompatActivity import android.os.Bundle

import android.view.Menu import android.view.MenuItem import android.widget.Toast

import androidx.appcompat.widget.Toolbar

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.*activity\_main*)

// Find Toolbar and set it as ActionBar

val toolbar: Toolbar = findViewById(R.id.*toolbar*) setSupportActionBar(toolbar)

}

override fun onCreateOptionsMenu(menu: Menu?): Boolean { *menuInflater*.inflate(R.menu.*options\_menu*, menu) return true

}

override fun onOptionsItemSelected(item: MenuItem): Boolean { return when (item.*itemId*) {

R.id.*option\_1* -> {

showToast("Option One Selected") true

}

R.id.*option\_2* -> {

showToast("Option Two Selected") true

}

R.id.*option\_3* -> {

showToast("Option Three Selected") true

}

else -> super.onOptionsItemSelected(item)

}

}

private fun showToast(message: String) { Toast.makeText(this, message, Toast.*LENGTH\_SHORT*).show()

}

}

PROGRAM 4 ANIMATION

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)

xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/main" android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">

<LinearLayout

android:id="@+id/linearLayout" android:layout\_width="262dp" android:layout\_height="319dp" android:orientation="horizontal" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.496" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.262">

<ImageView

android:id="@+id/imageView" android:layout\_width="wrap\_content" android:layout\_height="match\_parent" android:layout\_weight="1" app:srcCompat="@android:drawable/btn\_star\_big\_on" />

</LinearLayout>

<Button

android:id="@+id/btnFade" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Fade In" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.741" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.872" />

<Button

android:id="@+id/btnSlide" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Slide In" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.079" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.713" />

<Button

android:id="@+id/btnZoom" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Zoom In"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.743" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.project4

import android.os.Bundle

import android.view.animation.AnimationUtils import android.widget.Button

import android.widget.ImageView

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val imageView = findViewById<ImageView>(R.id.*imageView*) val btnFade = findViewById<Button>(R.id.*btnFade*)

val btnSlide = findViewById<Button>(R.id.*btnSlide*) val btnZoom = findViewById<Button>(R.id.*btnZoom*)

btnFade.setOnClickListener **{**

val anim = AnimationUtils.loadAnimation(this, R.anim.*fade\_in*) imageView.startAnimation(anim)

**}**

btnSlide.setOnClickListener **{**

val anim = AnimationUtils.loadAnimation(this, R.anim.*slide\_in*) imageView.startAnimation(anim)

**}**

btnZoom.setOnClickListener **{**

val anim = AnimationUtils.loadAnimation(this, R.anim.*zoom\_in*) imageView.startAnimation(anim)

**}**

}

}

FADE

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

<alpha xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:fromAlpha="0.0"

android:toAlpha="1.0" android:duration="2000"/>

SLIDE

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

<translate xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:fromXDelta="-100%"

android:toXDelta="0%" android:duration="1000"/>

ZOOM

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

<scale xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:fromXScale="0.0"

android:toXScale="1.0" android:fromYScale="0.0" android:toYScale="1.0" android:pivotX="50%" android:pivotY="50%" android:duration="1500"/>

PROGRAM5 CHROMETER

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android)

xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:id="@+id/main" android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">

<Chronometer

android:id="@+id/chronometer" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:textSize="24sp" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.512" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.377" />

<Button

android:id="@+id/btnStartStop" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Start" app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.526" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" app:layout\_constraintVertical\_bias="0.551" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.project5

import android.os.Bundle import android.os.SystemClock import android.widget.Button

import android.widget.Chronometer

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

private var isRunning = false // To track chronometer state override fun onCreate(savedInstanceState: Bundle?) {

super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val chronometer = findViewById<Chronometer>(R.id.*chronometer*) val btnStartStop = findViewById<Button>(R.id.*btnStartStop*) btnStartStop.setOnClickListener **{**

if (!isRunning) {

chronometer.*base* = SystemClock.elapsedRealtime() chronometer.start()

btnStartStop.*text* = "Stop" isRunning = true

} else {

chronometer.stop() btnStartStop.*text* = "Start" isRunning = false

}

**}**

}

}

RATTING BAR

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

<LinearLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent" android:layout\_height="match\_parent"

android:gravity="center" android:orientation="vertical" android:padding="20dp">

<RatingBar

android:id="@+id/ratingBar" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:numStars="5" android:stepSize="0.5" android:rating="2.5" />

<TextView

android:id="@+id/txtRating" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Rating: 2.5" android:textSize="20sp" android:layout\_marginTop="10dp"/>

</LinearLayout>

package com.example.rattingbar

import android.os.Bundle

import android.widget.RatingBar import android.widget.TextView

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val ratingBar = findViewById<RatingBar>(R.id.*ratingBar*) val txtRating = findViewById<TextView>(R.id.*txtRating*)

ratingBar.setOnRatingBarChangeListener **{** \_, rating, \_ **->**

txtRating.*text* = "Rating: $rating"

**}**

}

}

SHARED PREFENCE

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

<LinearLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent" android:layout\_height="match\_parent"

android:gravity="center" android:orientation="vertical" android:padding="20dp">

<EditText

android:id="@+id/etUsername" android:layout\_width="match\_parent" android:layout\_height="wrap\_content" android:hint="Enter Username" />

<Button

android:id="@+id/btnSave" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Save" android:layout\_marginTop="10dp"/>

<TextView

android:id="@+id/txtResult" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Saved Username: " android:textSize="18sp" android:layout\_marginTop="10dp"/>

</LinearLayout>

package com.example.sharedprefences

import android.content.Context import android.os.Bundle import android.widget.Button import android.widget.EditText import android.widget.TextView

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val etUsername = findViewById<EditText>(R.id.*etUsername*) val btnSave = findViewById<Button>(R.id.*btnSave*)

val txtResult = findViewById<TextView>(R.id.*txtResult*)

val sharedPref = getSharedPreferences("MyPrefs", Context.*MODE\_PRIVATE*)

txtResult.*text* = "Saved: " + sharedPref.getString("username", "Not

Found")

btnSave.setOnClickListener **{**

sharedPref.edit().putString("username", etUsername.*text*.toString()).apply()

txtResult.*text* = "Saved: " + etUsername.*text*.toString()

**}**

}

}

broadcast airplane

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

<androidx.constraintlayout.widget.ConstraintLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) xmlns:app[="http://schemas.android.com/apk/res-auto"](http://schemas.android.com/apk/res-auto) xmlns:tools[="http://schemas.android.com/tools"](http://schemas.android.com/tools) android:layout\_width="match\_parent" android:layout\_height="match\_parent" tools:context=".MainActivity">

<TextView

android:id="@+id/txtStatus" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Checking Airplane Mode..." app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

package com.example.brodacast

import android.content.Intent import android.content.IntentFilter import android.os.Bundle

import androidx.appcompat.app.AppCompatActivity

class MainActivity : AppCompatActivity() {

private lateinit var receiver: AirplaneModeChangeReceiver // Corrected variable declaration

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) setContentView(R.layout.*activity\_main*)

receiver = AirplaneModeChangeReceiver() // Initialize the receiver registerReceiver(receiver,

IntentFilter(Intent.*ACTION\_AIRPLANE\_MODE\_CHANGED*)) // Register the receiver

}

override fun onDestroy() { super.onDestroy()

unregisterReceiver(receiver) // Unregister to prevent memory leaks

}

}

package com.example.brodacast

import android.content.BroadcastReceiver import android.content.Context

import android.content.Intent import android.widget.Toast

class AirplaneModeChangeReceiver : BroadcastReceiver() { override fun onReceive(context: Context?, intent: Intent?) {

val isAirplaneModeEnabled = intent?.getBooleanExtra("state", false)

?: return

val message = if (isAirplaneModeEnabled) "Airplane Mode Enabled" else "Airplane Mode Disabled"

Toast.makeText(context, message, Toast.*LENGTH\_LONG*).show()

}

}

INTENTDEMO

package com.example.intentdemo

import android.content.Intent import android.os.Bundle import android.widget.Button

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class MainActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_main*)

val button = findViewById<Button>(R.id.*button*) // Find button button.setOnClickListener **{**

val intent = Intent(this, SecondActivity::class.*java*) // Create

Intent

startActivity(intent) // Start new Activity

**}**

}

}

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

<LinearLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent" android:layout\_height="match\_parent"

android:orientation="vertical" android:gravity="center">

<Button

android:id="@+id/button" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Go to Second Activity" />

</LinearLayout>

package com.example.intentdemo

import android.os.Bundle

import androidx.activity.enableEdgeToEdge import androidx.appcompat.app.AppCompatActivity import androidx.core.view.ViewCompat

import androidx.core.view.WindowInsetsCompat

class SecondActivity : AppCompatActivity() {

override fun onCreate(savedInstanceState: Bundle?) { super.onCreate(savedInstanceState) *enableEdgeToEdge*() setContentView(R.layout.*activity\_second*)

}

}

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

<LinearLayout xmlns:android[="http://schemas.android.com/apk/res/android"](http://schemas.android.com/apk/res/android) android:layout\_width="match\_parent" android:layout\_height="match\_parent"

android:gravity="center" android:orientation="vertical">

<TextView

android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:text="Welcome to Second Activity!" android:textSize="20sp" />

</LinearLayout>