# **Just modified my previous lab added landscape layout and save/restore for username textview.**

# **MainActivity.kt**

**package** com.example.screenrotation  
  
**import** androidx.appcompat.app.AppCompatActivity  
**import** android.os.Bundle  
**import** android.util.Log  
**import** android.view.View  
**import** android.widget.Button  
**import** android.widget.TextView  
**import** com.example.screenrotation.databinding.ActivityMainBinding  
  
  
**private lateinit var** *binding*: ActivityMainBinding  
**private lateinit var** *log\_btn*: Button  
**private lateinit var** *textView*: TextView  
**private lateinit var** *username*: TextView  
**private lateinit var** *password*: TextView  
**private const val** *TAG* = **"MainActivity"  
var** *users* = *mapOf*(**"user1"** *to* **"1111"**,  
 **"user2"** *to* **"2222"**,  
 **"user3"** *to* **"3333"**)  
  
  
**class** MainActivity : AppCompatActivity() {  
 **override fun** onCreate(savedInstanceState: Bundle?) {  
 **super**.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
 *binding* = ActivityMainBinding.inflate(*layoutInflater*)  
 setContentView(*binding*.*root*)  
  
 *textView* = *binding*.**textView** *username* = *binding*.**usernameTv** *password* = *binding*.**passwordTv** *log\_btn* = *binding*.**loginBtn** *log\_btn*.setOnClickListener **{  
 val** user = *username*.*text*.toString().*toLowerCase*()  
 **val** pswd = *password*.*text*.toString()  
 *textView*.*visibility* = View.*VISIBLE* **if**(*validateCredentials*(user, pswd)){  
 *textView*.setText(**"Loged in!!!"**)  
 }  
 **else** {  
 *textView*.setText(**"Invalid."**)  
 }  
 **}** }  
 **override fun** onStart() {  
 **super**.onStart()  
 Log.d(*TAG*, **"onStart() called"**)  
 }  
  
 **override fun** onResume() {  
 **super**.onResume()  
 Log.d(*TAG*, **"onResume() called"**)  
 }  
  
 **override fun** onPause() {  
 **super**.onPause()  
 Log.d(*TAG*, **"onPause() called"**)  
 }  
  
 **override fun** onStop() {  
 **super**.onStop()  
 Log.d(*TAG*, **"onStop() called"**)  
 }  
  
 **override fun** onRestart() {  
 **super**.onRestart()  
 Log.d(*TAG*, **"onRestart() called"**)  
 }  
  
 **override fun** onDestroy() {  
 **super**.onDestroy()  
 Log.d(*TAG*, **"onDestroy() called"**)  
 }  
  
  
 **override fun** onSaveInstanceState(outState: Bundle) {  
 **super**.onSaveInstanceState(outState)  
 Log.d(*TAG*, **"onSaveInstanceState() called"**)  
 outState.putCharSequence(**"username"**, *username*.*text*)  
 }  
  
 **override fun** onRestoreInstanceState(savedInstanceState: Bundle) {  
 **super**.onRestoreInstanceState(savedInstanceState)  
 Log.d(*TAG*, **"onRestoreInstanceState() called"**)  
 **val** myData = savedInstanceState.getCharSequence(**"username"**)  
 *username*.setText(myData)  
  
 }  
}  
  
**fun** validateCredentials(username: String, password: String): Boolean {  
 **for**(usr **in** *users*) {  
 **if**(usr.**key** == username && usr.**value** == password){  
 **return true** }  
 }  
 **return false**}

# **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:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context=".MainActivity"**>  
  
 <**EditText  
 android:id="@+id/username\_tv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:ems="10"  
 android:hint="Username"  
 android:saveEnabled="false"  
 android:inputType="textPersonName"  
 android:minHeight="48dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/password\_tv"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.802"** />  
  
 <**Button  
 android:id="@+id/login\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="108dp"  
 android:text="LogIn"  
 app:layout\_constraintBottom\_toTopOf="@+id/textView"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.501"  
 app:layout\_constraintStart\_toStartOf="parent"  
 tools:ignore="MissingConstraints"** />  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="128dp"  
 android:layout\_height="29dp"  
 android:layout\_marginBottom="332dp"  
 android:text="text"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 android:visibility="invisible"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**EditText  
 android:id="@+id/password\_tv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="32dp"  
 android:ems="10"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:minHeight="48dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/login\_btn"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

# **activity\_main.xml(land)**

*<?***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:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"**>  
  
 <**EditText  
 android:id="@+id/username\_tv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="108dp"  
 android:layout\_marginTop="80dp"  
 android:ems="10"  
 android:hint="Username"  
 android:saveEnabled="false"   
 android:inputType="textPersonName"  
 android:minHeight="48dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/login\_btn"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.009"** />  
  
 <**Button  
 android:id="@+id/login\_btn"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="48dp"  
 android:text="LogIn"  
 app:layout\_constraintBottom\_toTopOf="@+id/textView"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.499"  
 app:layout\_constraintStart\_toStartOf="parent"  
 tools:ignore="MissingConstraints"** />  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="128dp"  
 android:layout\_height="29dp"  
 android:layout\_marginBottom="52dp"  
 android:text="text"  
 android:textAlignment="center"  
 android:textSize="20sp"  
 android:visibility="invisible"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.499"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**EditText  
 android:id="@+id/password\_tv"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="88dp"  
 android:layout\_marginTop="80dp"  
 android:ems="10"  
 android:hint="Password"  
 android:inputType="textPassword"  
 android:minHeight="48dp"  
 app:layout\_constraintStart\_toEndOf="@+id/username\_tv"  
 app:layout\_constraintTop\_toTopOf="parent"** />  
</**androidx.constraintlayout.widget.ConstraintLayout**>

# **Screenshots**

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

A screen shot of a cell phone

Description automatically generated

A screen shot of a cell phone

Description automatically generated