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Section: OTIS1 Subject: MOBDEVT

1. XML Layout (Code)

<?*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">  
  
 <Button  
 **android***:id*="@+id/btnLogin"  
 **android***:layout\_width*="wrap\_content"  
 **android***:layout\_height*="wrap\_content"  
 **android***:layout\_marginTop*="32dp"  
 **android***:text*="@string/login"  
 **app***:layout\_constraintEnd\_toEndOf*="parent"  
 **app***:layout\_constraintStart\_toStartOf*="parent"  
 **app***:layout\_constraintTop\_toBottomOf*="@+id/textInputLayout3" />  
  
 <com.google.android.material.textfield.TextInputLayout  
 **android***:id*="@+id/textInputLayout2"  
 **android***:layout\_width*="300dp"  
 **android***:layout\_height*="wrap\_content"  
 **android***:layout\_marginTop*="32dp"  
 **app***:layout\_constraintEnd\_toEndOf*="parent"  
 **app***:layout\_constraintStart\_toStartOf*="parent"  
 **app***:layout\_constraintTop\_toTopOf*="parent">

<com.google.android.material.textfield.TextInputEditText  
 **android***:id*="@+id/UserName"  
 **android***:layout\_width*="300dp"  
 **android***:layout\_height*="wrap\_content"  
 **android***:hint*="@string/username"  
 **android***:inputType*="textPersonName" />  
 </com.google.android.material.textfield.TextInputLayout>  
  
 <com.google.android.material.textfield.TextInputLayout  
 **android***:id*="@+id/textInputLayout3"  
 **android***:layout\_width*="300dp"  
 **android***:layout\_height*="wrap\_content"  
 **android***:layout\_marginStart*="1dp"  
 **android***:layout\_marginTop*="32dp"  
 **android***:layout\_marginEnd*="1dp"  
 **app***:layout\_constraintEnd\_toEndOf*="parent"  
 **app***:layout\_constraintStart\_toStartOf*="parent"  
 **app***:layout\_constraintTop\_toBottomOf*="@+id/textInputLayout2"  
 **app***:passwordToggleEnabled*="true">

<com.google.android.material.textfield.TextInputEditText  
 **android***:id*="@+id/Password"  
 **android***:layout\_width*="300dp"  
 **android***:layout\_height*="wrap\_content"  
 **android***:hint*="@string/password\_hint"  
 **android***:inputType*="number|numberPassword" />  
 </com.google.android.material.textfield.TextInputLayout>  
  
</androidx.constraintlayout.widget.ConstraintLayout>

1. Main Activity File Source Code (KOTLIN)

class MainActivity : AppCompatActivity() {  
 private lateinit var **binding**: ActivityMainBinding  
 private var **attempts**: Int = 1  
 private val **username** = *arrayOf*<String>("JanM","JoseT","SharT","test4")  
 private val **password** = *arrayOf*<String>("12345","1234","123456","1236")  
 private var **userfound**: Boolean = false  
 private var **passfound**: Boolean = false  
  
 override fun onCreate(*savedInstanceState*: Bundle?) {  
 super.onCreate(*savedInstanceState*)  
 **binding** = ActivityMainBinding.inflate(*layoutInflater*)  
 val view = **binding**.*root* setContentView(view)  
  
  
 **binding**.**btnLogin**.setOnClickListener**{** val user = **binding**.**UserName**.*text* val pass = **binding**.**Password**.*text* if(**attempts** <= 3) {  
 if(user.*toString*().*equals*(**username**[0], true) && pass.*toString*().*equals*(**password**[0],true) ||  
 user.*toString*().*equals*(**username**[1], true) && pass.*toString*().*equals*(**password**[1],true) ||  
 user.*toString*().*equals*(**username**[2], true) && pass.*toString*().*equals*(**password**[2],true) ||  
 user.*toString*().*equals*(**username**[3], true) && pass.*toString*().*equals*(**password**[3],true)){  
 **userfound** = true  
 **passfound** = true  
 }  
 }  
 else{  
 Toast.makeText(this, "You have reached a maximum of three (3) invalid login attempts!", Toast.*LENGTH\_SHORT*).show()  
 *exitProcess*(-1)  
 }

if(**userfound**){  
 if(**passfound**){  
 val snack = Snackbar.make(**it**, "Hi, $user, Welcome to Android-Kotlin", Snackbar.*LENGTH\_LONG*)  
 snack.setAction("Show Details...") **{** displayToast() **}** .show()  
 **attempts** = 1  
 **passfound** = false  
 }  
 else{  
 addTextView("Invalid Attempt number $**attempts**: ${Calendar.getInstance().*time*}")  
 **attempts**++  
 }  
 **userfound** = false  
 }  
 else{  
 addTextView("Invalid Attempt number $**attempts**: ${Calendar.getInstance().*time*}")  
 **attempts**++  
 }  
 **}**}  
  
private fun displayToast() {  
 Toast.makeText(this, "Login Successful: ${Calendar.getInstance().*time*}", Toast.*LENGTH\_SHORT*).show()  
}  
private fun addTextView(*text*: String){  
 val textview1 = TextView(this)  
 textview1.*text* = *text* textview1.*textSize* = 16f  
 textview1.*textAlignment* = View.*TEXT\_ALIGNMENT\_CENTER* **binding**.**layout1**.addView(textview1)  
}

1. Screen Record a short video demo (10-15 seconds) of your working app showing the accomplished functionalities ..

<https://www.youtube.com/watch?v=cvXyC7FmwuM>

1. your self-assessment (what have you learned?).

In my self-assessment, I have learned the basics of the new features that was introduce to us, like using View bindings, how to use for looping and arrays in an application, what’s the purpose of the String Resource and use and manipulate The text, Snack Bar, and Toast for a better experience in using my application, and have a general idea of how a login app works