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Section: OTIS1

A. XML Layout (Code)

```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">

    <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">
```

```xml
        <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>
```

B. Main Activity File Source Code (KOTLIN)

```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)
            }
```

```kotlin
        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)
}
```

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

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

D. 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