

Title: Kotlin Authentication Code

Programming language: Kotlin

Author of code: MUYIWA FEMI-IGE

Link to the website:

<https://sweetcode.io/android-authentication-using-kotlin/>

Code Description:

Authentication in layman's terms is the process of proving something to be valid. When we have a computer system and a designated end-user, we will want to assert the identity of that end-user. We accomplish this process by authentication.

Authentication methods vary across programming languages, but in this article we will like to shed some light on Android authentication using Kotlin. Biometrics is the most common means of asserting the identity of an end-user. Therefore, we will guide you on how to authenticate fingerprints using plain old Kotlin.

```
package com.example.fingerprintauth  
import android.annotation.SuppressLint
```

```
import android.os.Bundle
import androidx.appcompat.app.AppCompatActivity
import androidx.core.content.ContextCompat
import
com.example.fingerprintauth.databinding.ActivityMainBi
nding
import java.util.concurrent.Executor
class MainActivity : AppCompatActivity() {
    private lateinit var binding: ActivityMainBinding
    private lateinit var executor: Executor
    private lateinit var biometricPrompt:
androidx.biometric.BiometricPrompt
    private lateinit var promptInfo:
androidx.biometric.BiometricPrompt.PromptInfo
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        binding = ActivityMainBinding.inflate(layoutInflater)
        setContentView(binding.root)
        executor = ContextCompat.getMainExecutor(this)
        biometricPrompt
=androidx.biometric.BiometricPrompt(this@MainActivity,
```

```
executor,object:androidx.biometric.BiometricPrompt.AuthenticationCallback(){
    @SuppressWarnings("SetTextI18n")
    override fun onAuthenticationError(errorCode: Int,
errString: CharSequence) {
        super.onAuthenticationError(errorCode, errString)
        binding.Authstatus.text = "Error, $errString"
    }
    @SuppressWarnings("SetTextI18n")
    override fun onAuthenticationSucceeded(result:
androidx.biometric.BiometricPrompt.AuthenticationResult) {
        super.onAuthenticationSucceeded(result)
        binding.Authstatus.text = "Successful auth"
    }
    @SuppressWarnings("SetTextI18n")
    override fun onAuthenticationFailed() {
        super.onAuthenticationFailed()
        binding.Authstatus.text = "Authentication Failed"
    }
})
```

```
promptInfo=
androidx.biometric.BiometricPrompt.PromptInfo.Builder()
    .setTitle("Biometric Authentication")
    .setSubtitle("Login using fingerprint or face")
    .setNegativeButtonText("Cancel")
    .build()
binding.Authbtn.setOnClickListener {
    biometricPrompt.authenticate(promptInfo)
}
}
}
```

Title: Kotlin Authentication Code

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Author of code: TutorialKart

Link to the website:

<https://www.tutorialkart.com/kotlin-android/login-form-example-in-kotlin-android/>

Code Description:

In this tutorial, we shall learn how to implement a Login Form in an Android Activity with the help of an Example Android Application.

The Login Form shall include two edit text views for user name and password. There shall be a reset button to reset the fields and a submit button to read the values for user name and password and further process them. OnClickListener are setup for reset and submit buttons.

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

```
<android.support.constraint.ConstraintLayout
```

```
xmlns:android="http://schemas.android.com/apk/res/android"
```

```
xmlns:tools="http://schemas.android.com/tools"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent"
```

```
tools:context="com.tutorialkart.myapplication.MainActivity">
```

```
<LinearLayout
```

```
android:id="@+id/ll_main_layout"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="match_parent"
```

```
android:gravity="center"
```

```
android:background="#444444"
```

```
android:padding="25dp"
```

```
android:orientation="vertical">
```

```
<TextView
```

```
android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
```

```
android:textSize="25dp"  
android:textColor="#6dffbf"  
android:padding="30dp"  
android:text="Login"/>
```

```
<EditText
```

```
    android:id="@+id/et_user_name"  
    android:hint="User Name"  
    android:textColor="#6bff7"  
    android:textColorHint="#52afaa"  
    android:textAlignment="center"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"/>
```

```
<EditText
```

```
    android:id="@+id/et_password"  
    android:hint="Password"  
    android:textColor="#6bff7"  
    android:textColorHint="#52afaa"  
    android:textAlignment="center"  
    android:inputType="textPassword"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"/>
```

```
<LinearLayout
```

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:padding="25dp"
        android:orientation="horizontal">
        <Button
            android:id="@+id/btn_reset"
            android:text="Reset"
            android:textAllCaps="false"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content" />
        <Button
            android:id="@+id/btn_submit"
            android:text="Submit"
            android:textAllCaps="false"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content" />
    </LinearLayout>
</LinearLayout>

</android.support.constraint.ConstraintLayout>
MainActivity.kt
```



```
package com.tutorialkart.myapplication
```

```
import android.support.v7.app.AppCompatActivity
```

```
import android.os.Bundle
```

```
import android.view.View
```

```
import android.widget.*
```

```
/**
```

```
 * A Login Form Example in Kotlin Android
```

```
*/
```

```
class MainActivity : AppCompatActivity() {
```

```
    override fun onCreate(savedInstanceState: Bundle?) {
```

```
        super.onCreate(savedInstanceState)
```

```
        setContentView(R.layout.activity_main)
```

```
        // get reference to all views
```

```
        var et_user_name =
```

```
        findViewById(R.id.et_user_name) as EditText
```

```
        var et_password = findViewById(R.id.et_password)
```

```
        as EditText
```

```
var btn_reset = findViewById(R.id.btn_reset) as  
Button
```

```
var btn_submit = findViewById(R.id.btn_submit) as  
Button
```

```
btn_reset.setOnClickListener {  
    // clearing user_name and password edit text  
    views on reset button click
```

```
    et_user_name.setText("")  
    et_password.setText("")  
}
```

```
// set on-click listener
```

```
btn_submit.setOnClickListener {  
    val user_name = et_user_name.text;  
    val password = et_password.text;  
    Toast.makeText(this@MainActivity, user_name,  
    Toast.LENGTH_LONG).show()
```

```
    // your code to validate the user_name and  
    password combination
```

```
    // and verify the same
```

}

}

}

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Programming language: Kotlin

Author of code: kotlindroider

**Link to the
website:<https://github.com/kotlindroider/Kotlin-Login-Sample>**

Code Description: This is a sample login/signup android project converted from java to KOTLIN

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

```
<manifest  
xmlns:android="http://schemas.android.com/apk/res/android"
```

```
package="com.kotlindroider.devaj">
```

<application

android:allowBackup="true"

android:icon="@mipmap/ic_launcher"

android:label="@string/app_name"

android:theme="@style/AppTheme">

<activity

android:name="com.kotlindroider.devaj.LoginActivity"

android:label="@string/app_name"

android:theme="@style/AppTheme.Dark">

<intent-filter>

```
        <action  
android:name="android.intent.action.MAIN" />
```

```
        <category  
android:name="android.intent.category.LAUNCHER" />
```

```
    </intent-filter>
```

```
</activity>
```

```
<activity
```

```
android:name="com.kotlindroider.devaj.MainActivity"
```

```
    android:theme="@style/AppTheme.Dark" />
```

```
<activity
```

```
android:name="com.kotlindroider.devaj.SignupActivity"
```

```
android:theme="@style/AppTheme.Dark" />
```

```
</application>
```

```
</manifest>
```

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