Create a sign in page which takes username and password, a checkbox to remember username and a button. Store the username using shared preference when check box is checked. When you press the sign in button it has to display the success page if the credentials are correct. Also provide the facility to enter wrong attempts at most 3 times. Show the remaining attempts using alert dialog box. After 3 wrong attempts it has to disable sign in button. If the credentials are stored already then, the page has to show the credentials:

Code:
activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp">

    <EditText
        android:id="@+id/username"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Username" />

    <EditText
        android:id="@+id/password"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Password"
        android:inputType="textPassword" />

    <CheckBox
        android:id="@+id/remember_me"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Remember Username" />

    <Button
        android:id="@+id/btn_sign_in"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```
                      android:text="Log in" />
</LinearLayout>
```

acivity_success.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns: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="Login Successful!"
        android:textSize="24sp" />
</LinearLayout>
```

MainActivity.java

```java
package com.example.signinapp;

import android.content.Context;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private EditText username, password;
    private CheckBox rememberMe;
    private Button signInButton;
    private SharedPreferences sharedPreferences;
    private int attemptCounter = 3; // Max 3 attempts
```

```java
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        username = findViewById(R.id.username);
        password = findViewById(R.id.password);
        rememberMe = findViewById(R.id.remember_me);
        signInButton = findViewById(R.id.btn_sign_in);

        sharedPreferences = getSharedPreferences("LoginPrefs",
Context.MODE_PRIVATE);

        // Check if credentials are stored and prefill the username
        if (sharedPreferences.contains("username")) {
            String savedUsername = sharedPreferences.getString("username", "");
            username.setText(savedUsername);
            rememberMe.setChecked(true); // Set checkbox as checked
        }

        signInButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                validateCredentials();
            }
        });
    }

    private void validateCredentials() {
        String inputUsername = username.getText().toString();
        String inputPassword = password.getText().toString();

        // Hardcoded valid credentials (for example purposes)
        String validUsername = "ImportApp";
        String validPassword = "1234";

        if (inputUsername.equals(validUsername) &&
inputPassword.equals(validPassword)) {
            // If checkbox is checked, save the username in SharedPreferences
            if (rememberMe.isChecked()) {
                SharedPreferences.Editor editor = sharedPreferences.edit();
                editor.putString("username", inputUsername);
                editor.apply();
```

```java
            }
            // Redirect to success page
            Intent intent = new Intent(MainActivity.this, SuccessActivity.class);
            startActivity(intent);
            finish();
        } else {
            // Handle wrong attempts
            attemptCounter--;
            if (attemptCounter > 0) {
                // Show remaining attempts
                showAlertDialog("Login Failed", "Incorrect credentials. You have "
+ attemptCounter + " attempts remaining.");
            } else {
                // Disable sign-in button after 3 failed attempts
                signInButton.setEnabled(false);
                Toast.makeText(MainActivity.this, "Login in disabled after 3 wrong
attempts", Toast.LENGTH_SHORT).show();
            }
        }
    }
    private void showAlertDialog(String title, String message) {
        AlertDialog.Builder builder = new AlertDialog.Builder(this);
        builder.setTitle(title);
        builder.setMessage(message);
        builder.setPositiveButton("OK", new DialogInterface.OnClickListener()
{
            public void onClick(DialogInterface dialog, int id) {
                dialog.dismiss();
            }
        });
        AlertDialog dialog = builder.create();
        dialog.show();
    }
}
```

SuccessActivity.java

```java
package com.example.signinapp;

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

public class SuccessActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_success);
    }
}
```

AndroidManifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.signinapp">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.SignInApp">

        <!-- Main activity (SignIn Page) -->
        <activity android:name=".MainActivity"
            android:exported="true"> <!-- Add android:exported explicitly -->
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

        <!-- Success activity (Displayed after successful login) -->
        <activity android:name=".SuccessActivity"
            android:exported="false"/> <!-- Usually internal, not launched by other
apps -->

    </application>
```

```
</manifest>
```

strings.xml

```xml
<resources>
    <string name="app_name">SignInApp</string>
<!-- Base application theme. -->
<style name="Theme.SignInApp"
parent="Theme.MaterialComponents.DayNight.DarkActionBar">
    <!-- Customize your theme here -->
    <item name="colorPrimary">@color/purple_500</item>
    <item name="colorPrimaryVariant">@color/purple_700</item>
    <item name="colorOnPrimary">@android:color/white</item>
    <item name="colorSecondary">@color/teal_200</item>
    <item name="colorSecondaryVariant">@color/teal_700</item>
    <item name="colorOnSecondary">@android:color/white</item>
</style>
</resources>
```

colors.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
    <!-- Define the colors used in your app -->
    <color name="purple_500">#6200EE</color>
    <color name="purple_700">#3700B3</color>
    <color name="teal_200">#03DAC5</color>
    <color name="teal_700">#018786</color>
</resources>
```

LoginPrefs.xml

```xml
</> LoginPrefs.xml  ×    © MainActivity.java    </> activity_success.xml

1    <?xml version='1.0' encoding='utf-8' standalone='yes' ?>
2    <map>
3        <string name="username">ImportApp</string>
4    </map>
5
```

Output:

	Log in:-
Login Success:- 	
	After 3 Unsuccessfull Attempt:-