

Lab 20: Android Shared Preferences

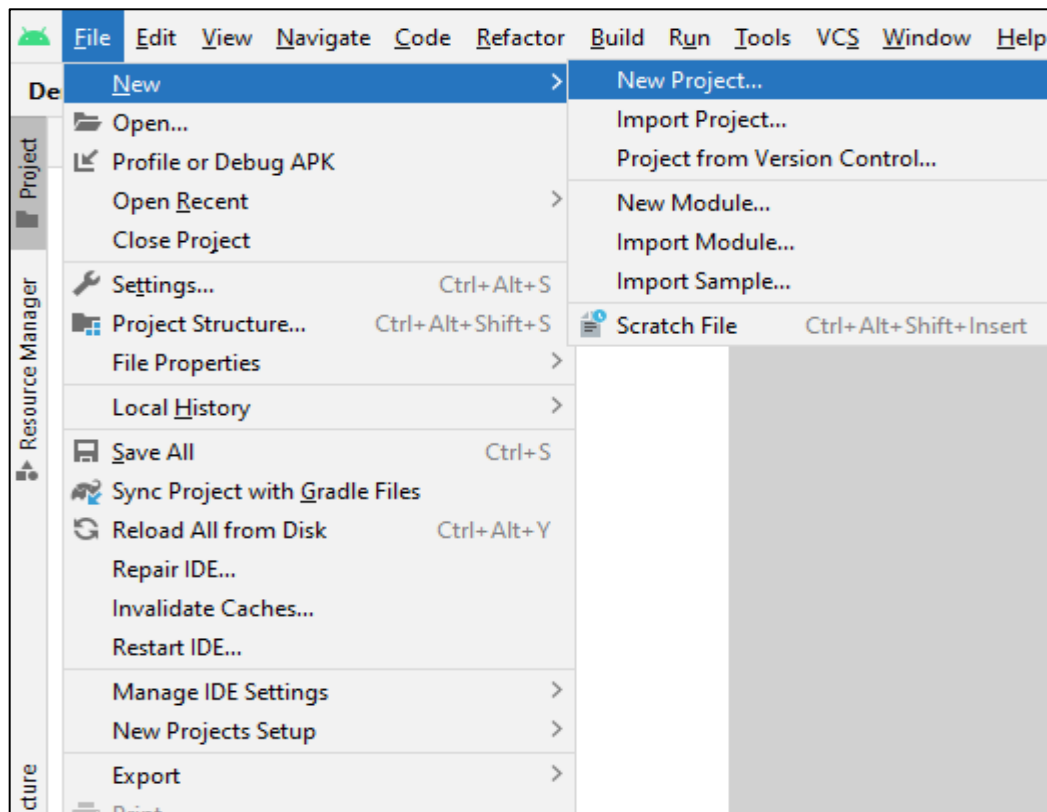
Introduction

Key-value pairs of basic data are stored and retrieved using the Android SharedPreferences class. String, integer, long, and number are regarded as primitive data types in Android. We can access the values based on their keys thanks to the key-value pair. It is frequently employed to gather data from users, such as that related to application or device settings.

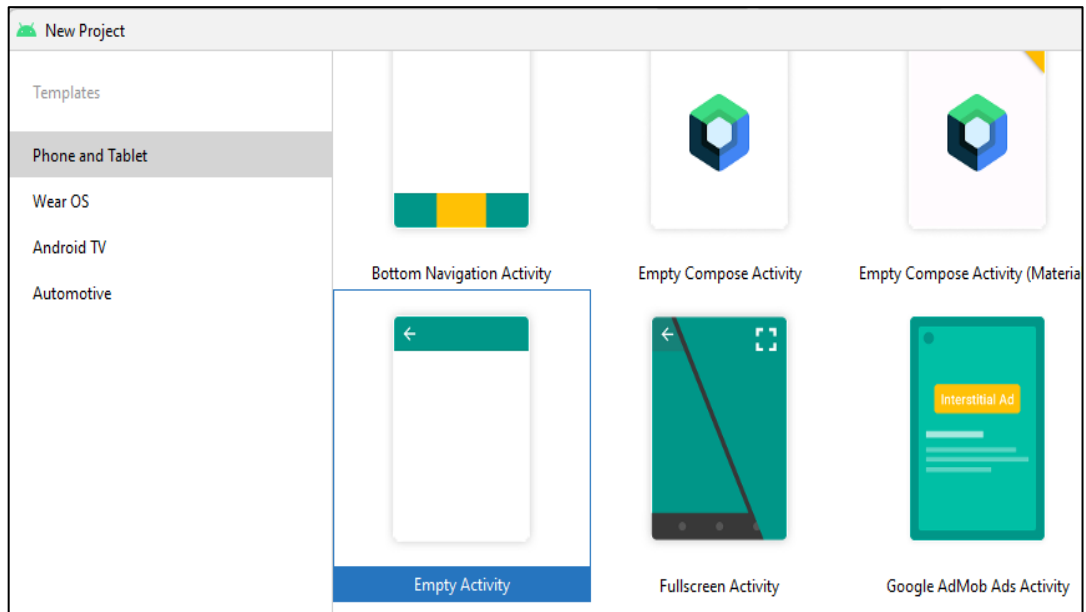
Let's get Started:

In this Exercise we will develop an Android App to demonstrate the use of Android Shared Preferences.

Step 1: Create a New Project in Android Studio as shown below



Step 2: Select Empty Activity as shown below



Step 3: Provide a Project Name as shown below

The screenshot shows the 'Empty Activity' configuration screen in Android Studio. The title is 'Empty Activity' with a subtitle 'Creates a new empty activity'. The form contains the following fields and options:

- Name:** DemoAndroidPreferences
- Package name:** com.example.demoandroidpreferences
- Save location:** C:\Users\hksharma\AndroidStudioProjects\DemoAndroidPreferences
- Language:** Java
- Minimum SDK:** API 26: Android 8.0 (Oreo)

Below the fields, there is an information icon and text: 'Your app will run on approximately 88.2% of devices. [Help me choose](#)'. There is also a checkbox for 'Use legacy android.support libraries' which is currently unchecked. Below this checkbox, a note states: 'Using legacy android.support libraries will prevent you from using the latest Play Services and Jetpack libraries'.

At the bottom right, there are four buttons: 'Previous', 'Next', 'Cancel', and 'Finish'.

Step 4: Update MainActivity.java as per the code given below

```
package com.example.demosharedpref2;
import androidx.appcompat.app.AppCompatActivity;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    private EditText name, age;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name = findViewById(R.id.edit1);
        age = findViewById(R.id.edit2);
    }
    @Override
    protected void onResume() {
        super.onResume();
        SharedPreferences sh = getSharedPreferences("MySharedPref",
MODE_PRIVATE);

        String s1 = sh.getString("name", "");
        int a = sh.getInt("age", 0);

        name.setText(s1);
        age.setText(String.valueOf(a));
    }
    @Override
    protected void onPause() {
        super.onPause();
        SharedPreferences sharedPreferences =
getSharedPreferences("MySharedPref", MODE_PRIVATE);
        SharedPreferences.Editor myEdit = sharedPreferences.edit();
        myEdit.putString("name", name.getText().toString());
        myEdit.putInt("age", Integer.parseInt(age.getText().toString()));
        myEdit.apply();
    }
}
```

Step 5: Update activity_main.xml for Vertical Orientation as per the code given below

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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=".MainActivity"
    tools:ignore="HardcodedText">
```

```
<TextView
    android:id="@+id/textview"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="32dp"
    android:text="Shared Preferences Demo"
    android:textColor="@android:color/black"
    android:textSize="24sp" />
```

```
<!--EditText to take the data from the user
    and save the data in SharedPreferences-->
```

```
<EditText
    android:id="@+id/edit1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/textview"
    android:layout_marginStart="16dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="16dp"
    android:hint="Enter your Name"
    android:padding="10dp" />
```

```
<!--EditText to take the data from the user and
    save the data in SharedPreferences-->
```

```
<EditText
    android:id="@+id/edit2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_below="@+id/edit1"
    android:layout_marginStart="16dp"
    android:layout_marginTop="8dp"
    android:layout_marginEnd="16dp"
    android:hint="Enter your Age"
    android:padding="10dp"
    android:inputType="number" />
```

```
</RelativeLayout>
```

Step 6: Check Output on Android Emulator and it should look like as given below



Voila!! We have successfully completed this lab.