Practical List - 13

Aim: Create Single Time Login using SharedPreferences and get data on any page of app.

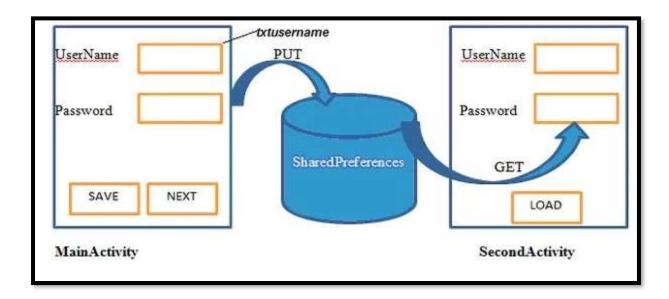
Software-required: Android Studio

Pre-requisite: Basic knowledge of Android Studio.

Theory/Logic: -

* Shared Preference: -

- Shared Preferences allow you to save and retrieve data in the form of key, value pair.



- To use shared preferences, we have to call a method getSharedPreferences() that returns a SharedPreference instance pointing to the file that contains the values of preferences.
- Syntax:

SharedPreference sp=new getSharedPreference(SHARED_PREF_NAME,MODE_PRIVATE)

- You can save something in the sharedpreferences by using SharedPreferences.Editor class.
- Call the edit method of SharedPreference instance and will receive it in an editor object.
- Syntax:

```
SharedPreferences.Editor editor = sp.edit();
editor.putString(KEY_NAME,username.getText().toString());
editor.putString(KEY_PASS,password.getText().toString());
editor.apply();
```

Program/Solution: -

Activity_main.xml file:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    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">
    <TextView
        android:layout_width="wrap content"
        android:layout height="wrap content"
        android:text="@string/login"
        android:layout centerHorizontal="true"
        android:textStyle="bold"
        android:textSize="30sp"
        android:layout marginTop="30dp"
        android:id="@+id/register"
    <TextView
        android:layout_width="wrap_content"
        android:layout height="wrap content"
        android:id="@+id/label1"
        android:text="@string/user"
        android:textSize="20sp"
        android:layout marginTop="40dp"
        android:layout_marginLeft="20dp"
        android:layout below="@+id/register"
        />
    <EditText
        android:layout width="match parent"
        android:layout_height="wrap_content"
        android:id="@+id/txtmail"
        android:layout_toRightOf="@+id/label1"
        android:layout marginTop="40dp"
        android:layout below="@+id/register"
        android:inputType="textEmailAddress"
        />
    <TextView
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:id="@+id/label2"
        android:text="@string/pass"
        android:layout below="@+id/label1"
        android:textSize="20sp"
        android:layout marginTop="60dp"
        android:layout marginLeft="20dp"
        />
    <EditText
        android:layout width="match parent"
        android:layout height="wrap content"
        android:id="@+id/txtpassword"
        android:layout below="@+id/txtmail"
        android:layout_toRightOf="@+id/label2"
        android:layout_marginTop="40dp"
        android:inputType="textPassword"
```

```
< Button
        android:id="@+id/submit"
        android:layout_width="match_parent"
        android:layout height="wrap content"
        android:layout below="@+id/label2"
        android:layout marginTop="100dp"
        android:text="@string/login"
        android:onClick="submitClick"
</RelativeLayout>
MainActivity.java file: -
package com.example.practical13;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    SharedPreferences sp;
    EditText username, password;
    Button btn:
    private static final String SHARED PREF NAME = "mypref";
    private static final String KEY NAME = "u name";
    private static final String KEY PASS = "u pass";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        username=(EditText) findViewById(R.id.txtmail);
        password=(EditText) findViewById(R.id.txtpassword);
        btn=(Button)findViewById(R.id.submit);
        sp=getSharedPreferences(SHARED PREF NAME, MODE PRIVATE);
        String u name=sp.getString(KEY NAME, null);
        if(u name!=null){
            Intent intent = new Intent(MainActivity.this, Home.class);
            startActivity(intent);
        }
    }
    public void submitClick(View view) {
        SharedPreferences.Editor editor = sp.edit();
        editor.putString(KEY NAME, username.getText().toString());
        editor.putString(KEY PASS, password.getText().toString());
        editor.apply();
        Intent intent = new Intent(MainActivity.this, Home.class);
```

```
startActivity(intent);
        Toast.makeText (MainActivity.this, "Login
Successful", Toast.LENGTH SHORT).show();
}
      activity home.xml file:
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    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=".Home">
    <TextView
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:id="@+id/lbwelcome"
        android:text="@string/welcome"
        android:gravity="center"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="30dp"
        android:textSize="30sp"
        android:textStyle="bold"
        />
    <TextView
        android:layout width="wrap content"
        android:layout height="wrap content"
        android:text="@string/hello"
        android:id="@+id/lbhello"
        android:layout below="@+id/lbwelcome"
        android:layout marginTop="30dp"
        android:layout marginLeft="10dp"
        />
    <TextView
        android:layout_width="match_parent"
        android: layout height="wrap content"
        android:id="@+id/lbusername"
        android:layout below="@+id/lbhello"
        android:layout marginTop="40dp"
        android:layout_marginLeft="20dp"
        />
    <Button
        android:layout width="match parent"
        android:layout_height="wrap_content"
        android:id="@+id/btn_logout"
        android:layout below="@+id/lbusername"
        android:layout centerHorizontal="true"
        android:layout marginTop="150dp"
        android:text="@string/logout"
        android:textStyle="bold"
        android:textSize="16sp"
        android:onClick="logout_click"
        />
```

```
</RelativeLayout>
```

- Home.java file: -

```
package com.example.practical13;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class Home extends AppCompatActivity {
    TextView tv ;
    Button btn;
    SharedPreferences sp;
    private static final String SHARED PREF NAME = "mypref";
    private static final String KEY NAME = "u name";
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity home);
        tv=(TextView)findViewById(R.id.lbusername);
        btn=(Button)findViewById(R.id.btn logout);
        sp=getSharedPreferences(SHARED PREF NAME, MODE PRIVATE);
        String email=sp.getString(KEY NAME, null);
        if(email!=null){
            tv.setText("Your Email ID is : "+email);
    public void logout click(View view) {
        SharedPreferences.Editor editor = sp.edit();
        editor.clear();
        editor.commit();
        Intent intent = new Intent(Home.this, MainActivity.class);
        startActivity(intent);
        Toast.makeText(Home.this, "Logout Successfully", Toast.LENGTH SHORT).show();
        finish();
    }
}
```

- strings.xml file: -

```
<string name="user">Email :</string>
  <string name="pass">Password :</string>
  <string name="login">Log In</string>
  <string name="welcome">Home Page</string>
  <string name="hello">Hello user, </string>
  <string name="logout">Log Out</string>
</resources>
```

Output: -

