

## Practical List – 13

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

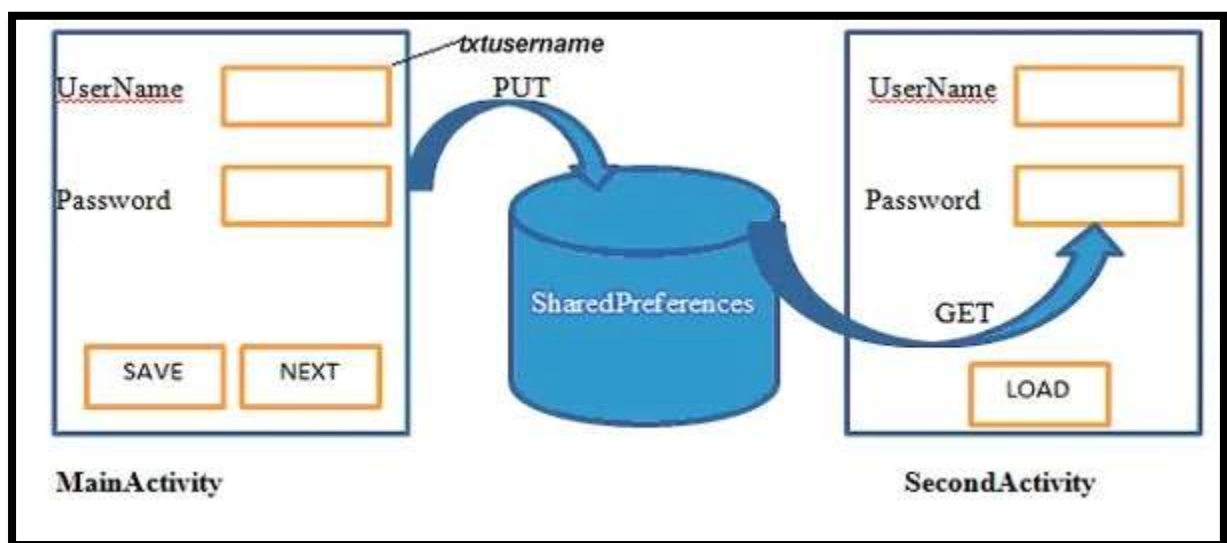
**Software-required:** Android Studio

**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 `SharedPreferences` instance pointing to the file that contains the values of preferences.
- Syntax:

**`SharedPreferences sp=new getSharedPreferences(SHARED_PREF_NAME,MODE_PRIVATE)`**

- You can save something in the sharedpreferences by using `SharedPreferences.Editor` class.
- Call the edit method of `SharedPreferences` 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"
    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"
    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: -

```
<resources>
    <string name="app_name">Practical13</string>
```

```
<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: -

