

## Practical No. 06

### Exercise - Create android application to demonstrate Shared Preferences

#### Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
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:id="@+id/textVwUserNm"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="User Name"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.051"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.22" />

    <TextView
        android:id="@+id/textVwPass"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Password"
        android:textSize="20sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.049"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.369" />

    <EditText
        android:id="@+id/txtUsrNm"
        android:layout_width="196dp"
        android:layout_height="42dp"
        android:ems="10"
        android:inputType="text"
        android:text="User Name"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.852"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.215"
        tools:ignore="TouchTargetSizeCheck" />

    <EditText
        android:id="@+id/txtPassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="text"
        android:text="Password"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintHorizontal_bias="0.928"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.377"
tools:ignore="TouchTargetSizeCheck" />
```

<CheckBox

```
android:id="@+id/chkRemMe"
android:layout_width="207dp"
android:layout_height="47dp"
android:text="Remember Me"
android:textSize="16sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.238"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/txtPassword"
app:layout_constraintVertical_bias="0.165"
tools:ignore="TouchTargetSizeCheck" />
```

<Button

```
android:id="@+id/btnSubmit"
android:layout_width="139dp"
android:layout_height="74dp"
android:text="Click Here"
android:textSize="14sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.459"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.714" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

#### Activity\_file\_handling.xml

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

```
<androidx.constraintlayout.widget.ConstraintLayout
```

```
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=".FileHandling">
```

<TextView

```
android:id="@+id/textVwMsg"
android:layout_width="176dp"
android:layout_height="63dp"
android:text="Click on the following button to clear the shared Preference"
android:textSize="12sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.428"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.251" />
```

<Button

```
android:id="@+id/button"
android:layout_width="140dp"
android:layout_height="66dp"
android:text="clear_data"
android:textSize="14sp"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.411"
app:layout_constraintStart_toStartOf="parent"
```

```

        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.473"
        tools:visibility="visible" />

<TextView
    android:id="@+id/txtVwInfo"
    android:layout_width="210dp"
    android:layout_height="60dp"
    android:textSize="14sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.452"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.731" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

## FileHandling.java

```

package com.example.sharedpreferdemo;

import static com.example.sharedpreferdemo.MainActivity.savedPref;
import static com.example.sharedpreferdemo.MainActivity.userNameSP;
import static com.example.sharedpreferdemo.MainActivity.userPassSP;

import android.content.SharedPreferences;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class FileHandling extends AppCompatActivity {
    SharedPreferences sharedPreferences;

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_file_handling);

        getSharedRef();

        Button btnClear = findViewById(R.id.button);
        btnClear.setOnClickListener(view -> clearSharedRef());
    }

    private void clearSharedRef() {
        sharedPreferences = getSharedPreferences(savedPref, MODE_PRIVATE);
        SharedPreferences.Editor editor = sharedPreferences.edit().clear();
        editor.apply();
        editor.commit();
        Toast.makeText(this, "Shared Preference is deleted successfully",
            Toast.LENGTH_SHORT).show();
        getSharedRef();
    }

    public void getSharedRef() {
        TextView txtvwInfo = findViewById(R.id.txtVwInfo);
        sharedPreferences = getSharedPreferences(savedPref, MODE_PRIVATE);
        String name = sharedPreferences.getString(userNameSP, "No User Name");
        String password = sharedPreferences.getString(userPassSP, "and password");
        txtvwInfo.setText(name + " " + password);
    }
}

```

## MainActivity.java

```
package com.example.sharedpreferdemo;

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.CheckBox;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    public static final String savedPref = "mypref";

    public static final String userNameSP = "UsrNm";

    public static final String userPassSP = "UsrPass";

    SharedPreferences sharedPreferences;

    private EditText txtUsrNm, txtPassword;

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

        txtUsrNm = findViewById(R.id.txtUsrNm);
        txtPassword = findViewById(R.id.txtPassword);

        Button btnSubmit = findViewById(R.id.btnSubmit);

        btnSubmit.setOnClickListener(view -> {
            CheckBox chkRemMe = findViewById(R.id.chkRemMe);

            if(chkRemMe.isChecked()){
                saveSharedPref(view);
            }
            Intent intent = new Intent(MainActivity.this, FileHandling.class);
            MainActivity.this.startActivity(intent);
        });
    }

    public void saveSharedPref(View view) {
        String nm = txtUsrNm.getText().toString();
        String pass = txtPassword.getText().toString();

        sharedPreferences=getSharedPreferences(savedPref, MODE_PRIVATE);
        SharedPreferences.Editor editor = sharedPreferences.edit();

        editor.putString(userNameSP, nm);
        editor.putString(userPassSP, pass);
        editor.apply();
    }

    protected void onResume() {
        super.onResume();

        sharedPreferences = getSharedPreferences(savedPref, MODE_PRIVATE);
        String prefString = sharedPreferences.getString(userNameSP, "");
        String prefString1 = sharedPreferences.getString(userPassSP, "");

        txtUsrNm.setText(prefString);
        txtPassword.setText(prefString1);
    }
}
```

```

protected void onDestroy() {
    sharedPreferences=getSharedPreferences(savedPref,MODE_PRIVATE);
    SharedPreferences.Editor editor = sharedPreferences.edit();
    editor.clear();
    editor.apply();
    finish();
    super.onDestroy();
}
}

```

## AndroidManifest.xml

```

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

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.SharedPreferDemo"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

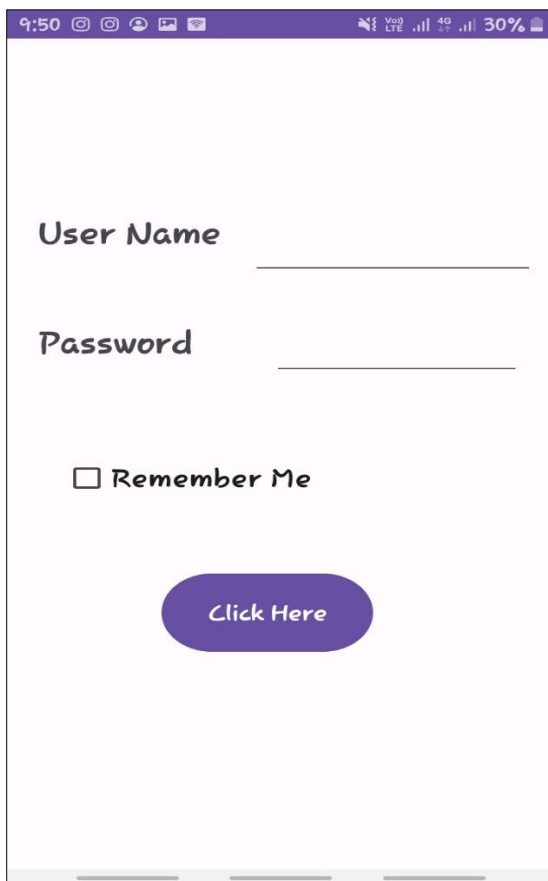
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

        <activity android:name=".FileHandling"
            android:parentActivityName=".MainActivity">
            <meta-data
                android:name="android.support.PARENT_ACTIVITY"
                android:value=".MainActivity"></meta-data>
        </activity>

    </application>
</manifest>

```

## Output:-



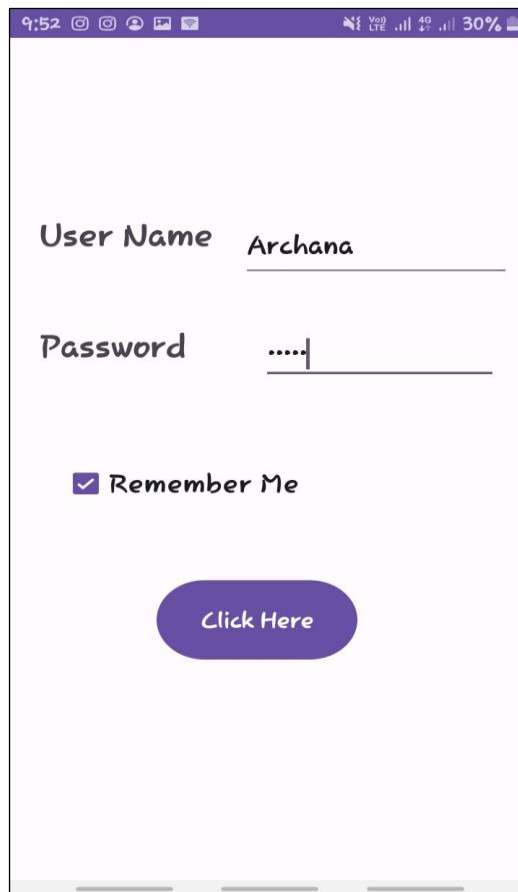
9:50

User Name \_\_\_\_\_

Password \_\_\_\_\_

☐ Remember Me

Click Here



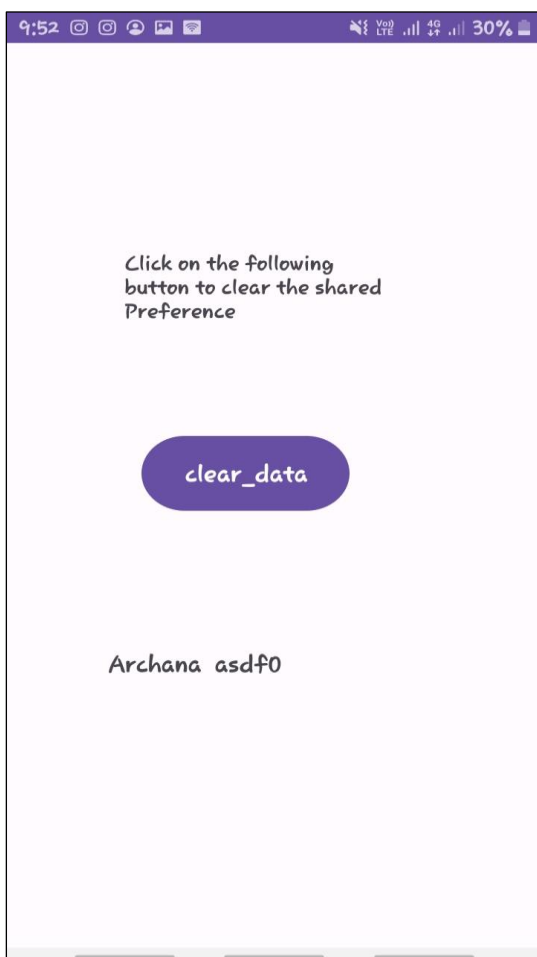
9:52

User Name Archana

Password ....|

☒ Remember Me

Click Here

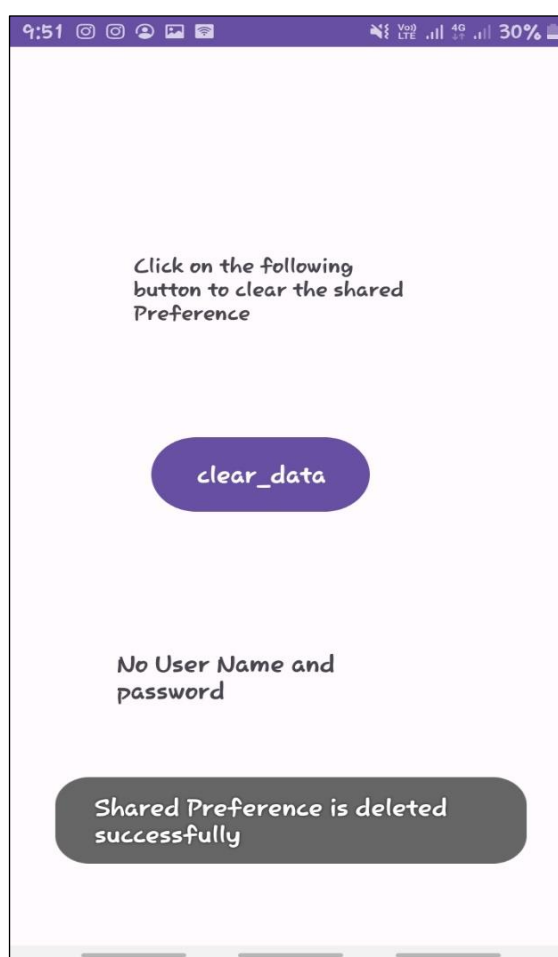


9:52

Click on the following button to clear the shared Preference

clear\_data

Archana asdf0



9:51

Click on the following button to clear the shared Preference

clear\_data

No User Name and password

Shared Preference is deleted successfully