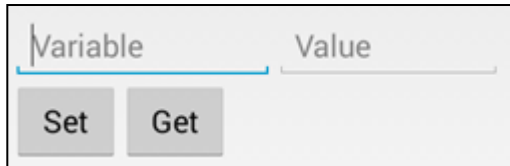# Lab No. 12

Persisting Data – Shared Preferences

1. Saving customized key-value pair: Create an app by which user can set and get customized key-value pair. You may follow the GUI given below:


```xml
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:fontFamily="serif-monospace"
    android:text="Lab 12"
    android:textColor="#000000"
    android:textSize="36sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:fontFamily="serif-monospace"
    android:text="SharedPreference"
    android:textColor="#000000"
    android:textSize="36sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:fontFamily="serif-monospace"
    android:text="Question:1"
    android:textColor="#000000"
    android:textSize="36sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintLeft_toLeftOf="parent"
    app:layout_constraintRight_toRightOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:orientation="horizontal"
    >
```

```xml
    <EditText
        android:id="@+id/variable"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:ems="10"
        android:hint="Variable"
        android:inputType="textPersonName" />

    <EditText
        android:id="@+id/value"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:ems="10"
        android:hint="Key"
        android:inputType="number" />

</LinearLayout>
```

```java
public class MainActivity extends AppCompatActivity {
private EditText var,key,comment;
private Button set,get,send;
private TextView txt;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        var=findViewById(R.id.variable);
        key=findViewById(R.id.value);
        set=findViewById(R.id.set);
        get=findViewById(R.id.get);
        send=findViewById(R.id.send);
        comment=findViewById(R.id.editTextTextPersonName2);
        txt=findViewById(R.id.textView2);
        txt.setText("Bad App\nBest App\n Ver Responsive");
        set.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                SharedPreferences sharedPreferences =
getSharedPreferences("MySharedPref", MODE_PRIVATE);
                SharedPreferences.Editor myEdit = sharedPreferences.edit();
                // write all the data entered by the user in SharedPreference
and apply
                myEdit.putString("var_", var.getText().toString());
                myEdit.putInt("key_",
Integer.parseInt(key.getText().toString()));
                myEdit.apply();

Toast.makeText(getApplicationContext(),"Data_Set",Toast.LENGTH_SHORT).show();
            }
        });
        get.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                SharedPreferences sh = getSharedPreferences("MySharedPref",
MODE_PRIVATE);
```
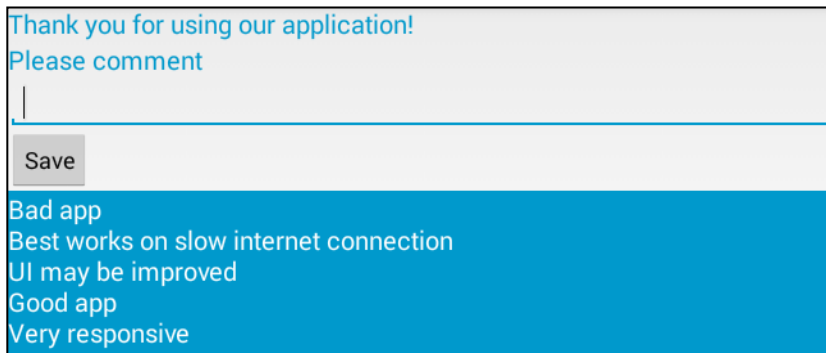
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```
                String s1 = sh.getString("var_", "");
                int a = sh.getInt("key_", 0);
                var.setText(s1);
                /* key.setText(a);*/
                Toast.makeText(getApplicationContext(),"Data
Get",Toast.LENGTH_SHORT).show();
            }
```


2. Create an app which can save user comments recorder by using SharedPreferences.
   User must be able to see previous comments chronologically.


```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:background="#FFFFFF"
    android:gravity="center"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        android:layout_margin="10dp"

        <Button
```

```xml
        android:id="@+id/set"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:text="Set" />

    <Button
        android:id="@+id/get"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="10dp"
        android:text="Get" />
</LinearLayout>

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    android:gravity="center"
    android:orientation="vertical">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="serif-monospace"
        android:text="Question:2"
        android:textColor="#000000"
        android:textSize="36sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="serif-monospace"
        android:text="Please Comment"
        android:textColor="#000000"
        android:textSize="36sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editTextTextPersonName2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        android:ems="10"
        android:hint="Comment Here!!"
        android:inputType="textPersonName"
      />
    <Button
        android:id="@+id/send"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Send" />
```

```xml
        <TextView
            android:id="@+id/textView2"
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:layout_marginTop="10dp"
            android:height="200dp"
            android:background="#00897B"
            android:fontFamily="sans-serif-black"
            android:textColor="#FFFFFF"
            android:textSize="24sp" />
    </LinearLayout>
</LinearLayout>
send.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Toast.makeText(getApplicationContext(),"Please Enter
Comment",Toast.LENGTH_SHORT).show();
        if (comment.getText().toString().equals(""))
        {
            Toast.makeText(getApplicationContext(),"Please Enter
Comment",Toast.LENGTH_SHORT).show();
        }
        else
        {
            SharedPreferences sharedPreferences =
getSharedPreferences("Comment", MODE_PRIVATE);
            SharedPreferences.Editor myEdit = sharedPreferences.edit();
            // write all the data entered by the user in SharedPreference and
apply
            myEdit.putString("com",
comment.getText().toString());
            myEdit.apply();

Toast.makeText(getApplicationContext(),"Data
Set",Toast.LENGTH_SHORT).show();
            SharedPreferences sh =
getSharedPreferences("Comment", MODE_PRIVATE);
            String s1 = sh.getString("com", "");
            txt.append(s1);

        }});
```