

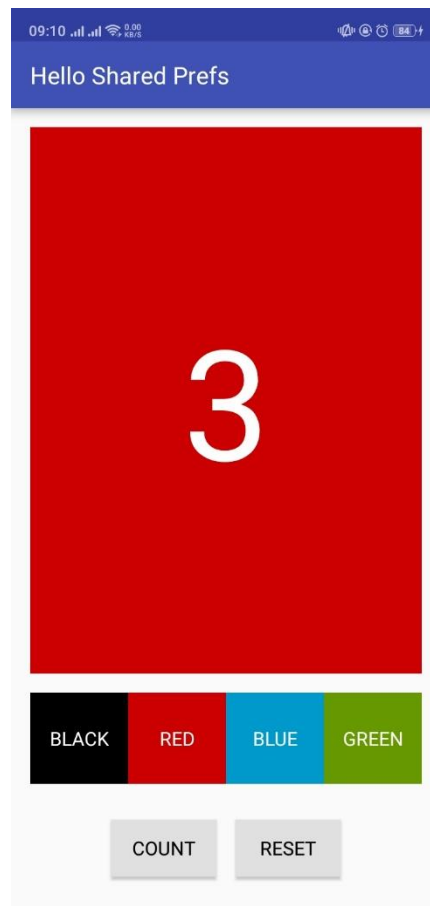
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Pertemuan : 7

Kelompok : A11.4304

HelloSharedPrefs



String.xml

```
<resources>
    <string name="app_name">Hello Shared Prefs</string>
    <string name="blue_button">Blue</string>
    <string name="green_button">Green</string>
    <string name="red_button">Red</string>
    <string name="black_button">Black</string>
    <string name="default_count">0</string>
    <string name="count_button">Count</string>
    <string name="reset_button">Reset</string>
</resources>
```

Activities_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="com.example.android.hellosharedprefs.MainActivity">

    <TextView
        android:id="@+id/count_textview"
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="60"
        android:background="@color/default_background"
        android:gravity="center"
        android:text="@string/default_count"
        android:textColor="@android:color/white"
        android:textSize="112sp" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_marginBottom="@dimen/activity_vertical_margin"
        android:layout_marginTop="@dimen/activity_vertical_margin"
        android:layout_weight="10"
        android:orientation="horizontal">

        <Button
            android:id="@+id/black_background_button"
            style="@style/AppTheme.Button.Colored"
            android:background="@android:color/black"
            android:onClick="changeBackground"
            android:text="@string/black_button" />

        <Button
            android:id="@+id/red_background_button"
            style="@style/AppTheme.Button.Colored"
            android:background="@color/red_background"
            android:onClick="changeBackground"
            android:text="@string/red_button" />

        <Button
            android:id="@+id/blue_background_button"
            style="@style/AppTheme.Button.Colored"
            android:background="@color/blue_background"
            android:onClick="changeBackground"
            android:text="@string/blue_button" />

        <Button
            android:id="@+id/green_background_button"
            style="@style/AppTheme.Button.Colored"
            android:background="@color/green_background"
            android:onClick="changeBackground"
            android:text="@string/green_button" />
    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="0dp"
        android:layout_weight="10"

```

```

        android:gravity="center"
        android:orientation="horizontal">

        <Button
            android:id="@+id/count_button"
            style="@style/AppTheme.Button"
            android:layout_marginRight="@dimen/activity_horizontal_margin"
            android:layout_marginEnd="@dimen/activity_horizontal_margin"
            android:onClick="countUp"
            android:text="@string/count_button" />

        <Button
            android:id="@+id/reset_button"
            style="@style/AppTheme.Button"
            android:onClick="reset"
            android:text="@string/reset_button" />

    </LinearLayout>
</LinearLayout>

```

MainActivity.java

```

package com.example.android.hellosharedprefs;

import android.content.SharedPreferences;
import android.graphics.drawable.ColorDrawable;
import android.support.v4.content.ContextCompat;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    // Current count.
    private int mCount = 0;
    // Current background color.
    private int mColor;
    // Text view to display both count and color.
    private TextView mShowCountTextView;

    // Key for current count
    private final String COUNT_KEY = "count";
    // Key for current color
    private final String COLOR_KEY = "color";

    // Shared preferences object
    private SharedPreferences mPreferences;
    // Name of shared preferences file
    private static final String mSharedPrefFile =
        "com.example.android.hellosharedprefs";

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

        // Initialize views, color, preferences
        mShowCountTextView = (TextView) findViewById(R.id.count_textview);
        mColor = ContextCompat.getColor(this, R.color.default_background);
        mPreferences = getSharedPreferences(mSharedPrefFile, MODE_PRIVATE);

        // Restore preferences
        mCount = mPreferences.getInt(COUNT_KEY, 0);
    }
}

```

```

        mShowCountTextView.setText(String.format("%s", mCount));
        mColor = mPreferences.getInt(COLOR_KEY, mColor);
        mShowCountTextView.setBackgroundColor(mColor);
    }

    @Override
    protected void onPause() {
        super.onPause();

        SharedPreferences.Editor preferencesEditor = mPreferences.edit();
        preferencesEditor.putInt(COUNT_KEY, mCount);
        preferencesEditor.putInt(COLOR_KEY, mColor);
        preferencesEditor.apply();
    }

    public void changeBackground(View view) {
        int color = ((ColorDrawable) view.getBackground()).getColor();
        mShowCountTextView.setBackgroundColor(color);
        mColor = color;
    }

    public void countUp(View view) {
        mCount++;
        mShowCountTextView.setText(String.format("%s", mCount));
    }

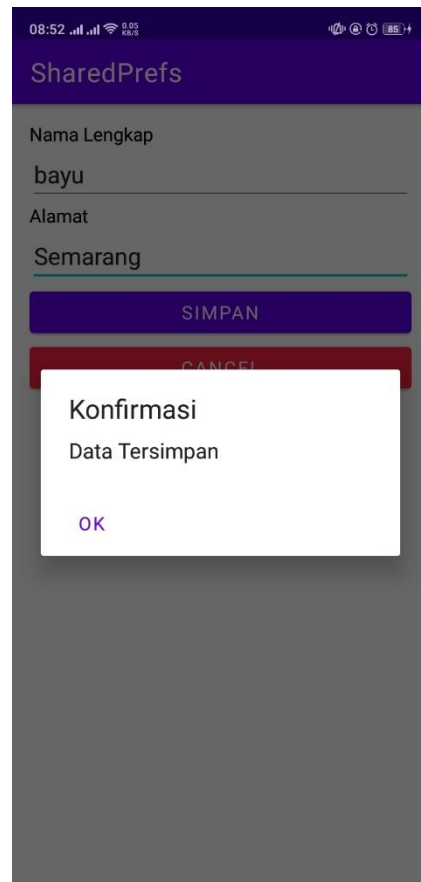
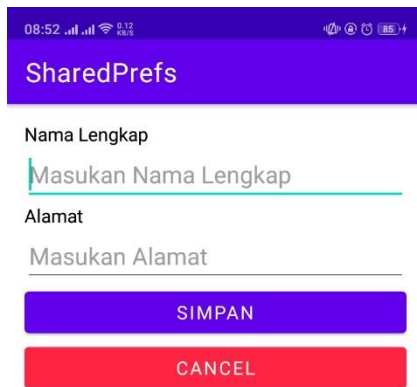
    public void reset(View view) {
        // Reset count
        mCount = 0;
        mShowCountTextView.setText(String.format("%s", mCount));

        // Reset color
        mColor = ContextCompat.getColor(this, R.color.default_background);
        mShowCountTextView.setBackgroundColor(mColor);

        // Clear preferences
        SharedPreferences.Editor preferencesEditor = mPreferences.edit();
        preferencesEditor.clear();
        preferencesEditor.apply();
    }
}

```

SharedPreferences



String.xml

```
<resources>
    <string name="app_name">SharedPreferences</string>
    <string name="txt_nama">Nama Lengkap</string>
    <string name="txt_alamat">Alamat</string>
    <string name="btn_simpan">Simpan</string>
    <string name="btn_cancel">Cancel</string>
    <string name="hint_nama">Masukan Nama Lengkap</string>
    <string name="hint_alamat">Masukan Alamat</string>
</resources>
```

Activities_main.xml

```
<?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:orientation="vertical"
    android:layout_marginHorizontal="15dp"
    android:layout_marginVertical="15dp"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```

        android:id="@+id/txtnama"
        android:textColor="@color/black"
        android:text="@string/txt_nama"/>

<EditText
    android:id="@+id/inp_nama"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="@string/hint_nama"/>

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/txtalamat"
    android:textColor="@color/black"
    android:text="@string/txt_alamat"/>

<EditText
    android:id="@+id/inp_alamat"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="@string/hint_alamat"/>

<Button
    android:id="@+id/btn_simpan"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/btn_simpan"
    android:onClick="simpan"/>

<Button
    android:id="@+id/btn_cancel"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/btn_cancel"
    android:backgroundTint="@color/red"
    android:onClick="batal"/>

</LinearLayout>

```

MainActivity.java

```

package com.example.sharedprefs;

import androidx.appcompat.app.AppCompatActivity;

import android.app.Activity;
import android.app.AlarmManager;
import android.app.AlertDialog;
import android.content.DialogInterface;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    TextView txtNama, txtAlamat;
    private SharedPreferences mPrefrences;

```

```

        private static final String mSharedPredFile =
"com.a71b.belajarsharedprefs";

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

            txtNama = (EditText) findViewById(R.id.inp_nama);
            txtAlamat = (EditText) findViewById(R.id.inp_alamat);
        }

        public void simpan(View view){
            mPreferences = getSharedPreferences(mSharedPredFile,
Activity.MODE_PRIVATE);
            SharedPreferences.Editor editor = mPreferences.edit();
            editor.putString("namaku", txtNama.getText().toString());
            editor.putString("alamatku", txtAlamat.getText().toString());
            editor.commit();
            pesan();
        }

        public void batal(View view){
            txtAlamat.setText("");
            txtNama.setText("");
        }

        private void pesan(){
            AlertDialog.Builder psn = new AlertDialog.Builder(this);
            psn.setTitle("Konfirmasi");
            psn.setMessage("Data Tersimpan");
            psn.setNeutralButton("OK", new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int which) {
                    Toast.makeText(getApplicationContext(), " Sukses simpan",
Toast.LENGTH_SHORT).show();
                }
            });
            psn.show();
        }
    }
}

```

NoteInternal



String.xml

```
<resources>
    <string name="app_name">noteinterna</string>
    <string name="txt_title">Enter The Text!</string>
    <string name="btn_read">Read Notes</string>
    <string name="btn_save">Save The Notes</string>
    <string name="btn_saveSd">Save The Notes to SD</string>
    <string name="btn_readSD">Read Note from SD</string>
</resources>
```

Activity_main.xml

```
<?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:layout_marginVertical="10dp"
    android:layout_marginHorizontal="10dp"
    android:orientation="vertical"
    tools:context=".MainActivity">
```



```

<TextView
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/txt_title" />

<EditText
    android:id="@+id/inputText"
    android:layout_width="match_parent"
    android:layout_height="180dp"
    android:gravity="top"/>

<Button
    android:id="@+id/simpanIntern"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/btn_save"/>

<Button
    android:id="@+id/loadIntern"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/btn_read"/>

<Button
    android:id="@+id/simpanExtern"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/btn_saveSd"/>
<Button
    android:id="@+id/loadExtern"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="@string/btn_readSD"/>

</LinearLayout>

```

MainActivity.java

```

package com.example.noteinternal;

import androidx.appcompat.app.AppCompatActivity;
import android.media.MediaParser;
import android.os.Bundle;
import android.os.Environment;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

```

```

import android.widget.Toast;
import java.io.BufferedReader;
import java.io.DataInputStream;
import java.io.File;
import java.io.FileInputStream;
import java.io.FileNotFoundException;
import java.io.FileOutputStream;
import java.io.IOException;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.io.OutputStream;
import java.io.OutputStreamWriter;
import java.nio.charset.StandardCharsets;
import java.util.ArrayDeque;
public class MainActivity extends AppCompatActivity {
    EditText inputText;
    Button btnSimpanIntern, btnLoadIntern, btnSimpanExtern, btnLoadExtern;
    File externalFile;
    String Data = "";
    static final int READ_BLOCK_SIZE = 100;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        inputText = findViewById(R.id.inputText);
        btnSimpanIntern = findViewById(R.id.simpanIntern);
        btnLoadIntern = findViewById(R.id.loadIntern);
        btnSimpanExtern = findViewById(R.id.simpanExtern);
        btnLoadExtern = findViewById(R.id.loadExtern);
        String path = this.getFilesDir().getAbsolutePath()+"/catatan.txt";
        File file = new File(path);
        btnSimpanIntern.setOnClickListener(view -> {
            if (inputText.getText().toString().isEmpty()){
                Toast.makeText(this, "Mohon masukkan catatan",
                    Toast.LENGTH_SHORT).show();
            }else{
                try {
                    FileOutputStream fileOut = openFileOutput("catatan.txt",
                        MODE_PRIVATE);
                    OutputStreamWriter outputWriter = new
                        OutputStreamWriter(fileOut);
                    outputWriter.write(inputText.getText().toString());
                    outputWriter.close();
                    Toast.makeText(getApplicationContext(), "Catatan berhasil
disimpan di "+path, Toast.LENGTH_SHORT).show();
                    inputText.setText("");
                } catch (FileNotFoundException e) {
                    e.printStackTrace();
                }
            }
        });
    }
}

```

```

        } catch (IOException e) {
            e.printStackTrace();
        }
    }
});
btnLoadInter.setOnClickListener(view -> {
    if (file.exists()){
        try {
            FileInputStream fileIn = openFileInput("catatan.txt");
            InputStreamReader inputRead = new
InputStreamReader(fileIn);
            char[] inputBuffer = new char[READ_BLOCK_SIZE];
            StringBuilder s = new StringBuilder();
            int charRead;
            while ((charRead = inputRead.read(inputBuffer)) > 0){
                String readString =
String.valueOf(inputBuffer,0,charRead);
                s.append(readString);
            }
            inputRead.close();
            inputText.setText(s.toString());
        } catch (FileNotFoundException e) {
            e.printStackTrace();
        } catch (IOException e) {
            e.printStackTrace();
        }
    }else {
        Toast.makeText(this, "Anda belum menulis catatan",
Toast.LENGTH_SHORT).show();
    }
});
if (!isExternalStorageAvailable() || isExternalStorageReadOnly()) {
    btnSimpanExtern.setEnabled(false);
} else {
    String filename = "AndroidRion.txt";
    String filepath = "Penyimpanan_Aplikasi";
    externalFile = new File(getExternalFilesDir(filepath), filename);
}
btnSimpanExtern.setOnClickListener(view -> {
    if (inputText.getText().toString().isEmpty()){
        Toast.makeText(this, "Mohon masukkan Catatan",
Toast.LENGTH_SHORT).show();
    }else{
        try {
            FileOutputStream fos = new FileOutputStream(externalFile);
            fos.write(inputText.getText().toString().getBytes());
            fos.close();

```

```

        Toast.makeText(getBaseContext(), "Catatan berhasil
disimpan " + externalFile, Toast.LENGTH_SHORT).show();
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }inputText.setText("");
    }
});
btnLoadExtern.setOnClickListener(view -> {
    try {
        FileInputStream fis = new FileInputStream(externalFile);
        DataInputStream in = new DataInputStream(fis);
        BufferedReader br = new BufferedReader(new
InputStreamReader(in));
        String strLine;
        while ((strLine = br.readLine()) != null){
            Data = Data + strLine;
        }
        in.close();
    } catch (FileNotFoundException e) {
        e.printStackTrace();
    } catch (IOException e) {
        e.printStackTrace();
    }inputText.setText(Data);
});
}
private boolean isExternalStorageReadOnly() {
    String extStorageState = Environment.getExternalStorageState();
    return Environment.MEDIA_MOUNTED_READ_ONLY.equals(extStorageState);
}
private boolean isExternalStorageAvailable() {
    String extStorageState = Environment.getExternalStorageState();
    return Environment.MEDIA_MOUNTED.equals(extStorageState);
}
}

```

RegisterSharedPreferences



Username

Password

Confirm Password

SIGN UP



Username

Password

SIGN UP

SIGN IN

Activity_main.xml

```
<?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"
    android:padding="30dp"
    tools:context=".MainActivity">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="vertical">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:textSize="20sp"
            android:text="Masuk sebagai"/>
        <TextView
            android:id="@+id/tv_namaMain"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:textSize="30sp"
            tools:text="Namaku adalah"/>
    </LinearLayout>
    <Button
        android:id="@+id/button_logoutMain"
        android:layout_width="match_parent"
```

```

        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_marginTop="10dp"
        android:text="Log Out" />
</RelativeLayout>

```

Activity_login.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:gravity="center"
    android:padding="18dp"
    android:orientation="vertical"
    tools:context=".LoginActivity">
    <EditText
        android:id="@+id/et_emailSignin"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Username"
        android:inputType="textEmailAddress"
        android:maxLines="1"
        android:singleLine="true"
        android:imeOptions="actionNext"/>
    <EditText
        android:id="@+id/et_passwordSignin"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="30dp"
        android:hint="Password"
        android:inputType="textPassword"
        android:maxLines="1"
        android:singleLine="true"
        android:imeActionId="6"
        android:imeActionLabel="Sign In"
        android:imeOptions="actionDone" />
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">
        <Button
            android:id="@+id/button_signupSignin"
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:text="Sign Up"
            android:layout_weight="1"/>
        <Button

```

```

        android:id="@+id/button_signinSignin"
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:text="Sign In"
        android:layout_weight="1"/>
    </LinearLayout>
</LinearLayout>

```

Activity_register.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:gravity="center"
    android:padding="18dp"
    android:orientation="vertical"
    tools:context=".RegisterActivity">
    <EditText
        android:id="@+id/et_emailSignup"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Username"
        android:inputType="textEmailAddress"
        android:maxLines="1"
        android:singleLine="true"
        android:imeOptions="actionNext"/>
    <EditText
        android:id="@+id/et_passwordSignup"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Password"
        android:inputType="textPassword"
        android:maxLines="1"
        android:singleLine="true"
        android:imeOptions="actionNext"/>
    <EditText
        android:id="@+id/et_passwordSignup2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginBottom="30dp"
        android:hint="Confirm Password"
        android:inputType="textPassword"
        android:maxLines="1"
        android:singleLine="true"
        android:imeActionLabel="Sign Up"
        android:imeOptions="actionDone" />

```

```

<Button
    android:id="@+id/button_signupSignup"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Sign Up" />
</LinearLayout>

```

MainActivity.java

```

package fryctze.tutorial.preference;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

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

        /* Deklarasi dan Menginisialisasi variable nama dengan Label Nama dari
        Layout MainActivity */
        TextView nama = findViewById(R.id.tv_namaMain);

        /* Men-set Label Nama dengan data User sedang Login dari Preferences
        */
        nama.setText(Preferences.getLoggedInUser(getBaseContext()));

        /* Men-set Status dan User yang sedang Login menjadi default atau
        kosong di
        * Data Preferences. Kemudian menuju ke LoginActivity*/
        findViewById(R.id.button_LogoutMain).setOnClickListener(new
        View.OnClickListener() {
            @Override
            public void onClick(View v) {
                //Menghapus Status Login dan kembali ke Login Activity
                Preferences.clearLoggedInUser(getBaseContext());
                startActivity(new
                Intent(getBaseContext(), LoginActivity.class));
                finish();
            }
        });
    }
}

```


LoginActivity.java

```
package fryctze.tutorial.preference;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.KeyEvent;
import android.view.View;
import android.view.inputmethod.EditorInfo;
import android.widget.EditText;
import android.widget.TextView;

public class LoginActivity extends AppCompatActivity {

    private EditText mViewUser, mViewPassword;

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

        /* Menginisialisasi variable dengan Form User dan Form Password dari
        Layout LoginActivity */
        mViewUser=findViewById(R.id.et_emailSignin);
        mViewPassword =findViewById(R.id.et_passwordSignin);
        /* Menjalankan Method razia() Jika tombol SignIn di keyboard di sentuh
        */
        mViewPassword.setOnEditorActionListener(new
        TextView.OnEditorActionListener() {
            @Override
            public boolean onEditorAction(TextView v, int actionId, KeyEvent
            event) {
                if (actionId == EditorInfo.IME_ACTION_DONE || actionId ==
                EditorInfo.IME_NULL) {
                    razia();
                    return true;
                }
                return false;
            }
        });

        /* Menjalankan Method razia() jika merasakan tombol SignIn disentuh */
        findViewById(R.id.button_signinSignin).setOnClickListener(new
        View.OnClickListener() {
            @Override
            public void onClick(View v) {
                razia();
            }
        });
    }
}
```

```

    }
});
/* Ke RegisterActivity jika merasakan tombol SignUp disentuh */
findViewById(R.id.button_signupSignin).setOnClickListener(new
View.OnClickListener() {
    @Override
    public void onClick(View v) {
        startActivity(new
Intent(getApplicationContext(), RegisterActivity.class));
    }
});
}

/** ke MainActivity jika data Status Login dari Data Preferences bernilai
true */
@Override
protected void onStart() {
    super.onStart();
    if (Preferences.getLoggedInStatus(getApplicationContext())){
        startActivity(new Intent(getApplicationContext(), MainActivity.class));
        finish();
    }
}

/** Men-check inputan User dan Password dan Memberikan akses ke
MainActivity */
private void razia(){
    /* Mereset semua Error dan fokus menjadi default */
    mViewUser.setError(null);
    mViewPassword.setError(null);
    View fokus = null;
    boolean cancel = false;

    /* Mengambil text dari form User dan form Password dengan variable
baru bertipe String*/
    String user = mViewUser.getText().toString();
    String password = mViewPassword.getText().toString();

    /* Jika form user kosong atau TIDAK memenuhi kriteria di Method
cekUser() maka, Set error
* di Form User dengan menset variable fokus dan error di Viewnya
juga cancel menjadi true*/
    if (TextUtils.isEmpty(user)){
        mViewUser.setError("This field is required");
        fokus = mViewUser;
        cancel = true;
    }else if(!cekUser(user)){
        mViewUser.setError("This Username is not found");
    }
}

```

```

        fokus = mViewUser;
        cancel = true;
    }

    /* Sama syarat percabangannya dengan User seperti di atas. Bedanya ini
    untuk Form Password*/
    if (TextUtils.isEmpty(password)){
        mViewPassword.setError("This field is required");
        fokus = mViewPassword;
        cancel = true;
    }else if (!cekPassword(password)){
        mViewPassword.setError("This password is incorrect");
        fokus = mViewPassword;
        cancel = true;
    }

    /* Jika cancel true, variable fokus mendapatkan fokus */
    if (cancel) fokus.requestFocus();
    else masuk();
}

/** Menuju ke MainActivity dan Set User dan Status sedang Login, di
    Preferences */
private void masuk(){
    Preferences.setLoggedInUser(getBaseContext(),Preferences.getRegistered
    User(getBaseContext()));
    Preferences.setLoggedInStatus(getBaseContext(),true);
    startActivity(new
    Intent(getBaseContext(),MainActivity.class));finish();
}

/** True jika parameter password sama dengan data password yang terdaftar
    dari Preferences */
private boolean cekPassword(String password){
    return
    password.equals(Preferences.getRegisteredPass(getBaseContext()));
}

/** True jika parameter user sama dengan data user yang terdaftar dari
    Preferences */
private boolean cekUser(String user){
    return user.equals(Preferences.getRegisteredUser(getBaseContext()));
}
}

```

Preference.java

```

package fryctze.tutorial.preference;

```

```

import android.content.Context;
import android.content.SharedPreferences;
import android.preference.PreferenceManager;

public class Preferences {

    /** Pendeklarasian key-data berupa String, untuk sebagai wadah penyimpanan data.
     * Jadi setiap data mempunyai key yang berbeda satu sama lain */
    static final String KEY_USER_TEREGISTER ="user", KEY_PASS_TEREGISTER
="pass";
    static final String KEY_USERNAME_SEDANG_LOGIN = "Username_logged_in";
    static final String KEY_STATUS_SEDANG_LOGIN = "Status_logged_in";

    /** Pendeklarasian Shared Preferences yang berdasarkan parameter context
    */
    private static SharedPreferences getSharedPreference(Context context){
        return PreferenceManager.getDefaultSharedPreferences(context);
    }

    /** Deklarasi Edit Preferences dan mengubah data
     * yang memiliki key isi KEY_USER_TEREGISTER dengan parameter username */
    public static void setRegisteredUser(Context context, String username){
        SharedPreferences.Editor editor = getSharedPreference(context).edit();
        editor.putString(KEY_USER_TEREGISTER, username);
        editor.apply();
    }

    /** Mengembalikan nilai dari key KEY_USER_TEREGISTER berupa String */
    public static String getRegisteredUser(Context context){
        return getSharedPreference(context).getString(KEY_USER_TEREGISTER, "");
    }

    /** Deklarasi Edit Preferences dan mengubah data
     * yang memiliki key KEY_PASS_TEREGISTER dengan parameter password */
    public static void setRegisteredPass(Context context, String password){
        SharedPreferences.Editor editor = getSharedPreference(context).edit();
        editor.putString(KEY_PASS_TEREGISTER, password);
        editor.apply();
    }

    /** Mengembalikan nilai dari key KEY_PASS_TEREGISTER berupa String */
    public static String getRegisteredPass(Context context){
        return getSharedPreference(context).getString(KEY_PASS_TEREGISTER, "");
    }

    /** Deklarasi Edit Preferences dan mengubah data
     * yang memiliki key KEY_USERNAME_SEDANG_LOGIN dengan parameter username
    */
    public static void setLoggedInUser(Context context, String username){

```

```

        SharedPreferences.Editor editor = getSharedPreferences(context).edit();
        editor.putString(KEY_USERNAME_SEDANG_LOGIN, username);
        editor.apply();
    }
    /** Mengembalikan nilai dari key KEY_USERNAME_SEDANG_LOGIN berupa String */
    public static String getLoggedInUser(Context context){
        return
getSharedPreferences(context).getString(KEY_USERNAME_SEDANG_LOGIN, "");
    }

    /** Deklarasi Edit Preferences dan mengubah data
     * yang memiliki key KEY_STATUS_SEDANG_LOGIN dengan parameter status */
    public static void setLoggedInStatus(Context context, boolean status){
        SharedPreferences.Editor editor = getSharedPreferences(context).edit();
        editor.putBoolean(KEY_STATUS_SEDANG_LOGIN, status);
        editor.apply();
    }
    /** Mengembalikan nilai dari key KEY_STATUS_SEDANG_LOGIN berupa boolean */
    public static boolean getLoggedInStatus(Context context){
        return
getSharedPreferences(context).getBoolean(KEY_STATUS_SEDANG_LOGIN, false);
    }

    /** Deklarasi Edit Preferences dan menghapus data, sehingga menjadikannya
    bernilai default
     * khusus data yang memiliki key KEY_USERNAME_SEDANG_LOGIN dan
    KEY_STATUS_SEDANG_LOGIN */
    public static void clearLoggedInUser (Context context){
        SharedPreferences.Editor editor = getSharedPreferences(context).edit();
        editor.remove(KEY_USERNAME_SEDANG_LOGIN);
        editor.remove(KEY_STATUS_SEDANG_LOGIN);
        editor.apply();
    }
}

```

RegisterActivity.java

```

package fryctze.tutorial.preference;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.KeyEvent;
import android.view.View;
import android.view.inputmethod.EditorInfo;
import android.widget.EditText;
import android.widget.TextView;

```

```

public class RegisterActivity extends AppCompatActivity {

    private EditText mViewUser, mViewPassword, mViewRepassword;

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

        /* Menginisialisasi variable dengan Form User, Form Password, dan Form
Repassword
dari Layout RegisterActivity */
        mViewUser =findViewById(R.id.et_emailSignup);
        mViewPassword =findViewById(R.id.et_passwordSignup);
        mViewRepassword =findViewById(R.id.et_passwordSignup2);

        /* Menjalankan Method razia() jika merasakan tombol SignUp di keyboard
disentuh */
        mViewRepassword.setOnEditorActionListener(new
TextView.OnEditorActionListener() {
            @Override
            public boolean onEditorAction(TextView v, int actionId, KeyEvent
event) {
                if (actionId == EditorInfo.IME_ACTION_DONE || actionId ==
EditorInfo.IME_NULL) {
                    razia();
                    return true;
                }
                return false;
            }
        });
        /* Menjalankan Method razia() jika merasakan tombol SignUp disentuh */
        findViewById(R.id.button_signupSignup).setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                razia();
            }
        });
    }

    /** Men-check inputan User dan Password dan Memberikan akses ke
MainActivity */
    private void razia(){
        /* Mereset semua Error dan fokus menjadi default */
        mViewUser.setError(null);
        mViewPassword.setError(null);
        mViewRepassword.setError(null);
    }
}

```

```

View fokus = null;
boolean cancel = false;

/* Mengambil text dari Form User, Password, Repassword dengan variable
baru bertipe String*/
String repassword = mViewRepassword.getText().toString();
String user = mViewUser.getText().toString();
String password = mViewPassword.getText().toString();

/* Jika form user kosong atau MEMENUHI kriteria di Method cekUser()
maka, Set error di Form-
    * User dengan menset variable fokus dan error di Viewnya juga cancel
menjadi true*/
if (TextUtils.isEmpty(user)){
    mViewUser.setError("This field is required");
    fokus = mViewUser;
    cancel = true;
}else if(cekUser(user)){
    mViewUser.setError("This Username is already exist");
    fokus = mViewUser;
    cancel = true;
}

/* Jika form password kosong dan MEMENUHI kriteria di Method
cekPassword maka,
    * Reaksinya sama dengan percabangan User di atas. Bedanya untuk
Password dan Repassword*/
if (TextUtils.isEmpty(password)){
    mViewPassword.setError("This field is required");
    fokus = mViewPassword;
    cancel = true;
}else if (!cekPassword(password, repassword)){
    mViewRepassword.setError("This password is incorrect");
    fokus = mViewRepassword;
    cancel = true;
}

/** Jika cancel true, variable fokus mendapatkan fokus. Jika false,
maka
    * Kembali ke LoginActivity dan Set User dan Password untuk data yang
terdaftar */
if (cancel){
    fokus.requestFocus();
}else{
    Preferences.setRegisteredUser(getBaseContext(), user);
    Preferences.setRegisteredPass(getBaseContext(), password);
    finish();
}

```

```
}

    /** True jika parameter password sama dengan parameter repassword */
    private boolean cekPassword(String password, String repassword){
        return password.equals(repassword);
    }

    /** True jika parameter user sama dengan data user yang terdaftar dari
    Preferences */
    private boolean cekUser(String user){
        return user.equals(Preferences.getRegisteredUser(getBaseContext()));
    }
}
```