**Fragments (a) switching between 2 fragments, same screen**

**activity\_main.xml**

<FrameLayout

android:id="@+id/frame\_layout"

android:layout\_width="match\_parent"

android:layout\_height="500dp"

android:background="#FFFFF"/>

**Main Activity**

import android.app.Activity;

import android.app.FragmentManager;

import android.app.FragmentTransaction;

import android.app.Fragment;

import android.os.Bundle;

import android.widget.Button;

public class MainActivity extends Activity {

Button frag1, frag2;

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

frag1 = (Button) findViewById(R.id.*button1*);

frag2 = (Button) findViewById(R.id.*button2*);

frag1.setOnClickListener((v -> loadFragment(new Fragment1())));

frag2.setOnClickListener((v -> loadFragment(new Fragment2())));

}

private void loadFragment(Fragment fragment) {

FragmentManager fm = getFragmentManager();

FragmentTransaction ft = fm.beginTransaction();

ft.replace(R.id.*frame\_layout*, fragment);

ft.commit();

}

}

**Fragment**

import android.app.Fragment;

import android.view.LayoutInflater;

public class Fragment2 extends Fragment {

View view;

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {

view = inflater.inflate(R.layout.*fragment\_2*, container, false);

TextView tv = view.findViewById(R.id.*tv2*);

tv.setText("FRAGMENT 2");

Toast.*makeText*(getActivity(), "Fragment 2 reached!!", Toast.*LENGTH\_SHORT*).show();

return view;

}

}

**Fragments (b) displaying 2 fragments together**

**activity\_main.xml**

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

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

android:orientation="horizontal">

<fragment

android:name="com.example.practice.Fragment1"

android:id="@+id/fragment1"

android:layout\_weight="1"

android:layout\_width="0dp"

android:layout\_height="match\_parent" />

<fragment

android:name="com.example.practice.Fragment2"

android:id="@+id/fragment2"

android:layout\_weight="2"

android:layout\_width="0dp"

android:layout\_height="match\_parent" />

</LinearLayout>

**Fragment.java**

import android.os.Bundle;

import android.app.Fragment;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class Fragment1 extends Fragment {

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container, Bundle savedInstanceState) {

return inflater.inflate(R.layout.*fragment\_1*, container, false);

}

}

**SHARED PREFERENCES**

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.content.SharedPreferences;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Switch;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

private TextView textView;

private EditText editText;

private Button applyTextButton;

private Button saveButton;

private Switch switch;

public static final String *SHARED\_PREFS* = "sharedPrefs";

public static final String *TEXT* = "text";

public static final String *SWITCH* = "switch";

private String text;

private boolean switchOnOff;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

textView = (TextView) findViewById(R.id.*textview*);

editText = (EditText) findViewById(R.id.*edittext*);

applyTextButton = (Button) findViewById(R.id.*apply\_text\_button*);

saveButton = (Button) findViewById(R.id.*save\_button*);

switch = (Switch) findViewById(R.id.*switch1*);

applyTextButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(editText.getText().toString());

}

});

saveButton.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

saveData();

}

});

loadData();

updateViews();

}

public void saveData() {

SharedPreferences sharedPreferences = getSharedPreferences(*SHARED\_PREFS*, *MODE\_PRIVATE*);

SharedPreferences.Editor editor = sharedPreferences.edit();

editor.putString(*TEXT*, textView.getText().toString());

editor.putBoolean(*SWITCH*, switch.isChecked());

editor.apply();

Toast.*makeText*(this, "Data saved", Toast.*LENGTH\_SHORT*).show();

}

public void loadData() {

SharedPreferences sharedPreferences = getSharedPreferences(*SHARED\_PREFS*, *MODE\_PRIVATE*);

text = sharedPreferences.getString(*TEXT*, "");

switchOnOff = sharedPreferences.getBoolean(*SWITCH*, false);

}

public void updateViews() {

textView.setText(text);

switch.setChecked(switchOnOff);

}

}

[**SQLite**](https://www.thegadget360.com/post/sqlite-database-tutorial-insert-delete-update-and-view-data-from-sqlite-db-in-android-studio)

**DB HELPER**

package com.example.practicee;

import android.content.ContentValues;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

public class DBHelper extends SQLiteOpenHelper {

public DBHelper(Context context) {

super(context, "Userdata.db", null, 1);

}

@Override

public void onCreate(SQLiteDatabase DB) {

DB.execSQL("create Table Userdetails(name TEXT primary key, contact TEXT, dob TEXT)");

}

@Override

public void onUpgrade(SQLiteDatabase DB, int i, int ii) {

DB.execSQL("drop Table if exists Userdetails");

}

public Boolean insertData(String name, String contact, String dob)

{

SQLiteDatabase DB = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put("name", name);

contentValues.put("contact", contact);

contentValues.put("dob", dob);

long result = DB.insert("Userdetails", null, contentValues);

if(result == -1) {

return false;

} else {

return true;

}

}

public Cursor getData ()

{

SQLiteDatabase DB = this.getWritableDatabase();

Cursor cursor = DB.rawQuery("Select \* from Userdetails", null);

return cursor;

}

}

**MAIN ACTIVITY**

package com.example.practicee;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.database.Cursor;

import androidx.appcompat.app.AlertDialog;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

EditText name, contact, dob;

Button insert, view;

DBHelper DB;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.*activity\_main*);

name = findViewById(R.id.*name*);

contact = findViewById(R.id.*contact*);

dob = findViewById(R.id.*dob*);

insert = findViewById(R.id.*btnInsert*);

view = findViewById(R.id.*btnView*);

DB = new DBHelper(this);

insert.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String nameTXT = name.getText().toString();

String contactTXT = contact.getText().toString();

String dobTXT = dob.getText().toString();

Boolean checkinsert = DB.insertData(nameTXT, contactTXT, dobTXT);

if(checkinsert == true)

Toast.*makeText*(MainActivity.this, "New Entry Inserted", Toast.*LENGTH\_SHORT*).show();

else

Toast.*makeText*(MainActivity.this, "New Entry Not Inserted", Toast.*LENGTH\_SHORT*).show();

}

});

view.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Cursor res = DB.getData();

if(res.getCount() == 0) {

Toast.*makeText*(MainActivity.this, "No Entry Exists", Toast.*LENGTH\_SHORT*).show();

return;

}

StringBuffer buffer = new StringBuffer();

while(res.moveToNext()) {

buffer.append("Name :" + res.getString(0) + "\n");

buffer.append("Contact :" + res.getString(1) + "\n");

buffer.append("Date of Birth :" + res.getString(2) + "\n\n");

}

AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);

builder.setCancelable(true)

.setTitle("User Entries")

.setMessage(buffer.toString())

.show();

}

});

}

}