1 RADIO BUTTON

<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"

tools:context=".MainActivity">

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Select your favourite course : "

android:textColor="#000"

android:textSize="20sp"

android:textStyle="bold" />

<RadioGroup

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content">

<RadioButton

android:id="@+id/Dosa"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginLeft="20dp"

android:layout\_marginTop="10dp"

android:checked="true"

android:text="Java"

android:textColor="#154"

android:textSize="20sp"

android:textStyle="bold" />

<RadioButton

android:id="@+id/idly"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginLeft="20dp"

android:layout\_marginTop="10dp"

android:checked="false"

android:text="Android"

android:textColor="#154"

android:textSize="20sp"

android:textStyle="bold" />

<RadioButton

android:id="@+id/upma"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginLeft="20dp"

android:layout\_marginTop="10dp"

android:checked="false"

android:text="DBMS"

android:textColor="#154"

android:textSize="20sp"

android:textStyle="bold" />

<RadioButton

android:id="@+id/palakpaneer"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginLeft="20dp"

android:layout\_marginTop="10dp"

android:checked="false"

android:text="OOPS"

android:textColor="#154"

android:textSize="20sp"

android:textStyle="bold" />

<RadioButton

android:id="@+id/roti"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginLeft="20dp"

android:layout\_marginTop="10dp"

android:checked="false"

android:text="DCN"

android:textColor="#154"

android:textSize="20sp"

android:textStyle="bold" />

</RadioGroup>

<Button

android:id="@+id/submitButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_margin="20dp"

android:background="#0f0"

android:padding="10dp"

android:text="Submit"

android:textColor="#fff"

android:textSize="20sp"

android:textStyle="bold" />

</LinearLayout>

string.xml

<resources>

<string name="app\_name">RadioButtonExample</string>

<string name="hello\_world">Hello world!</string>

<string name="action\_settings">Settings</string>

<string name="Java">Dosa</string>

<string name="Android">idly</string>

<string name="DBMS">upma</string>

<string name="OOPS">palakpaneer</string>

<string name="DCN">roti</string>

</resources>

mainactivity.java

package com.example.radio\_button;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.RadioButton;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

RadioButton Dosa, idly, upma, palakpaneer, roti;

String selectedfood;

Button submit;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Dosa = findViewById(R.id.Dosa);

idly = findViewById(R.id.idly);

upma = findViewById(R.id.upma);

palakpaneer = findViewById(R.id.palakpaneer);

roti = findViewById(R.id.roti);

submit = (Button) findViewById(R.id.submitButton);

submit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

if (Dosa.isChecked()) {

selectedfood = Dosa.getText().toString();

} else if (idly.isChecked()) {

selectedfood = idly.getText().toString();

} else if (upma.isChecked()) {

selectedfood = upma.getText().toString();

} else if (palakpaneer.isChecked()) {

selectedfood = palakpaneer.getText().toString();

} else if (roti.isChecked()) {

selectedfood = roti.getText().toString();

}

Toast.makeText(getApplicationContext(), selectedfood, Toast.LENGTH\_LONG).show(); // print the value of selected super star

}

});

}

}

2 . DATE PICKER

activitymain.xml

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

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

android:layout\_height="match\_parent"

android:layout\_width="match\_parent"

android:orientation="vertical">

<DatePicker

android:id="@+id/date"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:datePickerMode="calendar" />

<Button

android:id="@+id/submit"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Submit" />

</LinearLayout>

mainactivity.java

package com.example.datepicker;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.DatePicker;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

DatePicker date;

Button submit;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

date = findViewById(R.id.date);

submit = findViewById(R.id.submit);

submit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

String day = "Day = " + date.getDayOfMonth();

String month = "Month = " + (date.getMonth() + 1);

String year = "Year = " + date.getYear();

Toast.makeText(getApplicationContext(),day+"\n"+month+"\n"+year, Toast.LENGTH\_SHORT).show();

}

});

}

}

3. TOGGLE BUTTON

activity 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=".MainActivity">

<LinearLayout

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center\_horizontal"

android:orientation="horizontal">

<ToggleButton

android:id="@+id/simpleToggleButton1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center\_horizontal"

android:checked="false"

android:drawablePadding="20dp"

android:drawableRight="@drawable/ic\_launcher\_background"

android:textColor="#000" />

<ToggleButton

android:id="@+id/simpleToggleButton2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center\_horizontal"

android:layout\_marginLeft="50dp"

android:checked="true"

android:drawableLeft="@drawable/ic\_launcher\_background"

android:drawablePadding="20dp"

android:textColor="#000" />

</LinearLayout>

<Button

android:id="@+id/submitButton"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:layout\_marginTop="50dp"

android:background="#0f0"

android:padding="10dp"

android:text="Submit"

android:textColor="#fff"

android:textSize="20sp"

android:textStyle="bold" />

</LinearLayout>

dimension.xml

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

<resources>

<dimen name="activity\_vertical\_margin">16dp</dimen>

<dimen name="activity\_horizontal\_margin">16dp</dimen>

</resources>

activitymain.java

package com.example.myapplicationtoggle;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.Toast;

import android.widget.ToggleButton;

public class MainActivity extends AppCompatActivity {

ToggleButton simpleToggleButton1, simpleToggleButton2;

Button submit;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

// initiate toggle button's

simpleToggleButton1 = (ToggleButton) findViewById(R.id.simpleToggleButton1);

simpleToggleButton2 = (ToggleButton) findViewById(R.id.simpleToggleButton2);

submit = (Button) findViewById(R.id.submitButton);

submit.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String status = "ToggleButton1 : " + simpleToggleButton1.getText() + "\n" + "ToggleButton2 : " + simpleToggleButton2.getText();

Toast.makeText(getApplicationContext(), status, Toast.LENGTH\_SHORT).show(); // display the current state of toggle button's

}

});

}

}

4. ARRAY ADAPTER

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"

tools:context=".MainActivity">

<ListView

android:id="@+id/simpleListView"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:divider="#000"

android:dividerHeight="2dp"/>

</RelativeLayout>

ACTIVITY\_LIST\_VIEW.XML

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="vertical">

<TextView

android:id="@+id/textView"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:layout\_gravity="center"

android:padding="@dimen/activity\_horizontal\_margin"

android:textColor="#000" />

</LinearLayout>

MAIN\_ACTIVITY.JAVA

package com.example.myapplicationarray;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.ArrayAdapter;

import android.widget.ListView;

public class MainActivity extends AppCompatActivity {

// Array of strings...

ListView simpleList;

String animalList[] = {"Lion","Tiger","Monkey","Elephant","Dog","Cat","Camel"};

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

simpleList = (ListView) findViewById(R.id.simpleListView);

ArrayAdapter<String> arrayAdapter = new ArrayAdapter<String>(this, R.layout.activity\_list\_view, R.id.textView, animalList);

simpleList.setAdapter(arrayAdapter);

}

}

5. SPINNER

activity.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:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Hello World!"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

tools:context="com.example.application.spinnerexample.MainActivity"

/>

<Spinner

android:id="@+id/spinner1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

string.xml

<resources>

<string name="app\_name">Spinner Example</string>

<string-array name="numbers">

<item>One</item>

<item>Two</item>

<item>Three</item>

<item>Four</item>

<item>Five</item>

</string-array>

</resources>

mainactivity.java

package com.example.spinner;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.ArrayAdapter;

import android.widget.Spinner;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity implements AdapterView.OnItemSelectedListener {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Spinner spinner = findViewById(R.id.spinner1);

ArrayAdapter<CharSequence> adapter = ArrayAdapter.createFromResource(this,

R.array.numbers, android.R.layout.simple\_spinner\_item);

adapter.setDropDownViewResource(android.R.layout.simple\_spinner\_dropdown\_item);

spinner.setAdapter(adapter);

spinner.setOnItemSelectedListener(this);

}

@Override

public void onItemSelected(AdapterView<?> parent, View view, int position, long id) {

String text = parent.getItemAtPosition(position).toString();

Toast.makeText(parent.getContext(), text, Toast.LENGTH\_SHORT).show();

}

@Override

public void onNothingSelected(AdapterView<?> parent) {

}

}

6. SQLLITE

activity\_main.xml

<?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"

android:padding="10dp"

tools:context=".MainActivity">

<TextView

android:id="@+id/detail"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:layout\_alignParentTop="true"

android:layout\_marginTop="30dp"

android:text="Please Enter the Details"

android:textSize="14sp"/>

<EditText

android:id="@+id/name"

android:layout\_width="392dp"

android:layout\_height="36dp"

android:layout\_below="@+id/detail"

android:hint="Name"

android:inputType="textPersonName"

android:textSize="14sp"/>

<EditText

android:id="@+id/contact"

android:layout\_width="392dp"

android:layout\_height="36dp"

android:layout\_below="@+id/name"

android:hint="Contact"

android:inputType="number"

android:textSize="14sp"/>

<EditText

android:id="@+id/dob"

android:layout\_width="392dp"

android:layout\_height="36dp"

android:layout\_below="@+id/contact"

android:hint="Date of Birth"

android:inputType="number"

android:textSize="14sp"/>

<Button

android:id="@+id/insert"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="24sp"

android:text="Insert New Data"

android:layout\_marginTop="30sp"

android:layout\_below="@+id/dob"/>

<Button

android:id="@+id/update"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="24sp"

android:text="Update Data"

android:layout\_below="@+id/insert"/>

<Button

android:id="@+id/delete"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="24sp"

android:text="Delete Existing Data"

android:layout\_below="@+id/update"/>

<Button

android:id="@+id/view"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:textSize="24sp"

android:text="View Data"

android:layout\_below="@+id/delete"/>

</RelativeLayout>

MainActivity.java

package com.example.database;

import androidx.appcompat.app.AlertDialog;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

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 {

EditText name,contact,dob;

Button insert,update,delete,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.insert);

update = findViewById(R.id.update);

delete = findViewById(R.id.delete);

view = findViewById(R.id.view);

db = new DbHelper(this);

insert.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

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

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

Boolean insertData = db.insertUserData(nameTxt,contactTxt,dobTxt);

if(insertData){

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

}else{

Toast.makeText(MainActivity.this, "Insertion Failed", Toast.LENGTH\_SHORT).show();

}

}

});

insert.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

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

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

Boolean insertData = db.insertUserData(nameTxt,contactTxt,dobTxt);

if(insertData){

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

}else{

Toast.makeText(MainActivity.this, "Insertion Failed", Toast.LENGTH\_SHORT).show();

}

}

});

update.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

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

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

Boolean updateData = db.updateUserData(nameTxt,contactTxt,dobTxt);

if(updateData){

Toast.makeText(MainActivity.this, "Data Updated", Toast.LENGTH\_SHORT).show();

}else{

Toast.makeText(MainActivity.this, "Updation Failed", Toast.LENGTH\_SHORT).show();

}

}

});

delete.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

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

Boolean deleteData = db.deleteUserData(nameTxt);

if(deleteData){

Toast.makeText(MainActivity.this, "Data Deleted", Toast.LENGTH\_SHORT).show();

}else{

Toast.makeText(MainActivity.this, "Deletion Failed", Toast.LENGTH\_SHORT).show();

}

}

});

view.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

Cursor res = db.getUserData();

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

Toast.makeText(MainActivity.this, "No Data 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);

builder.setTitle("User Data");

builder.setMessage(buffer.toString());

builder.show();

}

});

}

}

DbHelper.java

package com.example.database;

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 oldVersion, int newVersion) {

db.execSQL("DROP TABLE if exists Userdetails");

}

public Boolean insertUserData(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 res = db.insert("Userdetails",null,contentValues);

if(res == -1){

return false;

}else

return true;

}

public Boolean updateUserData(String name, String contact, String dob){

SQLiteDatabase db = this.getWritableDatabase();

ContentValues contentValues = new ContentValues();

contentValues.put("contact",contact);

contentValues.put("dob",dob);

Cursor cursor = db.rawQuery("SELECT \* FROM Userdetails WHERE name=?",new String[]{name});

if(cursor.getCount()>0){

long res = db.update("Userdetails",contentValues,"name=?",new String[]{name});

if(res == -1){

return false;

}else

return true;

}else

return false;

}

public Boolean deleteUserData(String name){

SQLiteDatabase db = this.getWritableDatabase();

Cursor cursor = db.rawQuery("SELECT \* FROM Userdetails WHERE name=?",new String[]{name});

if(cursor.getCount()>0){

long res = db.delete("Userdetails","name=?",new String[]{name});

if(res == -1){

return false;

}else

return true;

}else

return false;

}

public Cursor getUserData(){

SQLiteDatabase db = this.getWritableDatabase();

Cursor cursor = db.rawQuery("SELECT \* FROM Userdetails",null);

return cursor;

}

}

7. SHARED PREFERENCES

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:orientation="vertical"

tools:context=".MainActivity">

<TextView

android:id="@+id/textview"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:gravity="center\_horizontal"

android:textSize="30sp"

tools:text="Here will be our text" />

<EditText

android:id="@+id/edittext"

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content" />

<Button

android:id="@+id/apply\_text\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center\_horizontal"

android:text="apply text" />

<Switch

android:id="@+id/switch1"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center\_horizontal" />

<Button

android:id="@+id/save\_button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_gravity="center\_horizontal"

android:text="save data" />

</LinearLayout>

MainActivity.java

package com.example.sharedpreferences;

import androidx.appcompat.app.AppCompatActivity;

import android.content.SharedPreferences;

import android.os.Bundle;

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 switch1;

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

public static final String TEXT = "text";

public static final String SWITCH1 = "switch1";

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);

switch1 = (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(SWITCH1, switch1.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(SWITCH1, false);

}

public void updateViews() {

textView.setText(text);

switch1.setChecked(switchOnOff);

}

}

8. LAYOUT INFLATORS

package com.example.labtest;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;

import android.os.Bundle;

import android.view.Gravity;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.EditText;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

final EditText edit\_query = findViewById(R.id.edit\_query);

findViewById(R.id.buttonPanel).setOnClickListener(new View.OnClickListener() {

public void showToast(int i){

LayoutInflater inflater = getLayoutInflater();

View layout = inflater.inflate(R.layout.custom,(ViewGroup)findViewById(R.id.toast\_root));

TextView text = layout.findViewById(R.id.toast\_text);

Toast toast = Toast.makeText(getApplicationContext(),"message",Toast.LENGTH\_LONG);

if(i==0){

text.setTextColor(Color.BLUE);

toast.setGravity(Gravity.CENTER,0,0);

toast.setDuration(Toast.LENGTH\_LONG);

toast.setText("The entered number is even");

toast.setView(layout);

toast.show();

}else{

text.setTextColor(Color.RED);

toast.setGravity(Gravity.CENTER,0,0);

toast.setDuration(Toast.LENGTH\_LONG);

toast.setText("The entered number is odd");

toast.setView(layout);

toast.show();

}

}

public void onClick(View v) {

String data = edit\_query.getText().toString();

if (!data.isEmpty()) {

char c = data.charAt(1);

if (c%2==0) {

showToast(0);

//Toast.makeText(MainActivity.this, " The entered number is even", Toast.LENGTH\_LONG).show();

}

else

showToast(1);

//Toast.makeText(MainActivity.this, " The entered number is odd.", Toast.LENGTH\_LONG).show();

}

else

Toast.makeText(MainActivity.this, " Enter a number", Toast.LENGTH\_LONG).show();

}

}

}

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:gravity="center"

android:layout\_height="match\_parent"

tools:context=".MainActivity"

android:orientation="vertical">

<EditText

android:id="@+id/edit\_query"

android:layout\_width="match\_parent"

android:hint="Enter number"

android:inputType="number"

android:layout\_height="wrap\_content" />

<Button

android:id="@+id/buttonPanel"

android:text="Click"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content" />

</LinearLayout>

custom xml

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

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

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:orientation="horizontal"

android:background="@android:color/holo\_blue\_bright"

android:padding="8dp"

android:id="@+id/toast\_root"

>

<TextView

android:id="@+id/toast\_text"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="This is a custom toast"

android:textColor="@android:color/holo\_green\_dark"

android:textSize="16sp"/>

</LinearLayout>

9. FRAGMENTS

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"

tools:context=".MainActivity">

<fragment

android:id="@+id/fr1"

android:name="com.example.fragments2.fr1"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1" />

<fragment

android:id="@+id/fr2"

android:name="com.example.fragments2.fr2"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1" />

<fragment

android:id="@+id/fr3"

android:name="com.example.fragments2.fr3"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1" />

</LinearLayout>

MainActivity.java

package com.example.fragments1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

}

}

fragment\_fr1.xml

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

<FrameLayout 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"

tools:context=".fr1">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:text="Fragment 1"

android:textSize="20dp"

android:textAlignment="center"

android:background="#ea9999"/>

</FrameLayout>

fr1.java

package com.example.fragments2;

import androidx.appcompat.app.AppCompatActivity;

import androidx.fragment.app.Fragment;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class fr1 extends Fragment {

private static final String ARG\_PARAM1 = "param1";

private static final String ARG\_PARAM2 = "param2";

private String mParam1;

private String mParam2;

public fr1() {

// Required empty public constructor

}

public static fr1 newInstance(String param1, String param2) {

fr1 fragment = new fr1();

Bundle args = new Bundle();

args.putString(ARG\_PARAM1, param1);

args.putString(ARG\_PARAM2, param2);

fragment.setArguments(args);

return fragment;

}

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

if (getArguments() != null) {

mParam1 = getArguments().getString(ARG\_PARAM1);

mParam2 = getArguments().getString(ARG\_PARAM2);

}

}

@Override

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

return inflater.inflate(R.layout.fragment\_fr1, container, false);

}

}

fragment\_fr2.xml

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

<FrameLayout 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"

tools:context=".fr2">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:text="Fragment 2"

android:textSize="20dp"

android:textAlignment="center"

android:background="#f9cb9c"/>

</FrameLayout>

fr2.java

package com.example.fragments2;

import androidx.appcompat.app.AppCompatActivity;

import androidx.fragment.app.Fragment;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class fr2 extends Fragment {

private static final String ARG\_PARAM1 = "param1";

private static final String ARG\_PARAM2 = "param2";

private String mParam1;

private String mParam2;

public fr2() {

// Required empty public constructor

}

public static fr2 newInstance(String param1, String param2) {

fr2 fragment = new fr2();

Bundle args = new Bundle();

args.putString(ARG\_PARAM1, param1);

args.putString(ARG\_PARAM2, param2);

fragment.setArguments(args);

return fragment;

}

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

if (getArguments() != null) {

mParam1 = getArguments().getString(ARG\_PARAM1);

mParam2 = getArguments().getString(ARG\_PARAM2);

}

}

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

// Inflate the layout for this fragment

return inflater.inflate(R.layout.fragment\_fr2, container, false);

}

}

fragment\_fr3.xml

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

<FrameLayout 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"

tools:context=".fr3">

<TextView

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"

android:background="#45818e"

android:text="Fragment 3"

android:textAlignment="center"

android:textSize="20dp" />

</FrameLayout>

fr3.java

package com.example.fragments2;

import androidx.appcompat.app.AppCompatActivity;

import androidx.fragment.app.Fragment;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class fr3 extends Fragment {

private static final String ARG\_PARAM1 = "param1";

private static final String ARG\_PARAM2 = "param2";

private String mParam1;

private String mParam2;

public fr3() {

// Required empty public constructor

}

public static fr3 newInstance(String param1, String param2) {

fr3 fragment = new fr3();

Bundle args = new Bundle();

args.putString(ARG\_PARAM1, param1);

args.putString(ARG\_PARAM2, param2);

fragment.setArguments(args);

return fragment;

}

@Override

public void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

if (getArguments() != null) {

mParam1 = getArguments().getString(ARG\_PARAM1);

mParam2 = getArguments().getString(ARG\_PARAM2);

}

}

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

// Inflate the layout for this fragment

return inflater.inflate(R.layout.fragment\_fr3, container, false);

}

}