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HOME WORK #3

**AndroidManifest.xml**

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

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

package="com.example.homework3">

<application

android:allowBackup="true"

android:icon="@mipmap/ic\_launcher"

android:label="@string/app\_name"

android:roundIcon="@mipmap/ic\_launcher\_round"

android:supportsRtl="true"

android:theme="@style/AppTheme">

<activity android:name=".MainActivity">

<intent-filter>

<action android:name="android.intent.action.MAIN" />

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

</intent-filter>

</activity>

</application>

</manifest>

**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"

android:orientation="vertical">

<fragment

android:layout\_width="fill\_parent"

android:layout\_height="match\_parent"

android:id="@+id/fragment1"

android:layout\_weight="1"

android:name="com.example.homework3.Fragment1" />

<fragment

android:layout\_width="fill\_parent"

android:layout\_height="match\_parent"

android:layout\_weight="1"

android:id="@+id/fragment2"

android:name="com.example.homework3.Fragment2"/>

</LinearLayout>

**MainActivity.java**

package com.example.homework3;

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);

}

}

**Fragment1.xml**

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

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

android:orientation="vertical" android:layout\_width="match\_parent"

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

<TextView

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

android:background="#00FF00"

android:textSize="30sp"

android:id="@+id/textView"/>

</LinearLayout>

**Fragment1.java**

package com.example.homework3;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import androidx.fragment.app.Fragment;

public class Fragment1 extends Fragment {

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

return inflater.inflate(R.layout.fragment1,container,false);

}

}

**Fragment2.xml**

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

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

android:orientation="vertical"

android:layout\_width="fill\_parent"

android:layout\_height="fill\_parent"

android:background="#CDAE0B">

<LinearLayout

android:orientation="horizontal"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:gravity="center\_horizontal">

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for1"

android:text="1"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for2"

android:text="2"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for3"

android:text="3"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for4"

android:text="4"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for5"

android:text="5"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for6"

android:text="6"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for7"

android:text="7"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for8"

android:text="8"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for9"

android:text="9"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/for0"

android:text="0"/>

</LinearLayout>

<LinearLayout

android:orientation="horizontal"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:gravity="center\_horizontal">

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forQ"

android:text="Q"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forW"

android:text="W"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forE"

android:text="E"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forR"

android:text="R"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forT"

android:text="T"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forY"

android:text="Y"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forU"

android:text="U"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forI"

android:text="I"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forO"

android:text="O"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forP"

android:text="P"/>

</LinearLayout>

<LinearLayout

android:orientation="horizontal"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:gravity="center\_horizontal">

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forA"

android:text="A"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forS"

android:text="S"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forD"

android:text="D"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forF"

android:text="F"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forG"

android:text="G"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forH"

android:text="H"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forJ"

android:text="J"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forK"

android:text="K"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forL"

android:text="L"/>

</LinearLayout>

<LinearLayout

android:orientation="horizontal"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:gravity="center\_horizontal">

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forComma"

android:text=","/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forZ"

android:text="Z"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forX"

android:text="X"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forC"

android:text="C"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forV"

android:text="V"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forB"

android:text="B"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forN"

android:text="N"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forM"

android:text="M"/>

<Button

android:layout\_width="32sp"

android:layout\_height="45sp"

android:id="@+id/forStop"

android:text="."/>

</LinearLayout>

<LinearLayout

android:orientation="horizontal"

android:layout\_width="fill\_parent"

android:layout\_height="wrap\_content"

android:gravity="center\_horizontal">

<Button

android:layout\_width="120sp"

android:layout\_height="45sp"

android:id="@+id/forSpace"

android:text="SPACE"/>

<Button

android:layout\_width="104sp"

android:layout\_height="45sp"

android:id="@+id/forBackSpace"

android:text="BackSpace"/>

</LinearLayout>

</TableLayout>

**Fragment2.java**

package com.example.homework3;

import android.os.Bundle;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.Button;

import android.widget.TextView;

import androidx.fragment.app.Fragment;

public class Fragment2 extends Fragment {

public View onCreateView(LayoutInflater inflater,

ViewGroup container, Bundle savedInstanceState) {

//---Inflate the layout for this fragment---

return inflater.inflate(R.layout.fragment2, container, false);

}

public void onStart()

{

super.onStart();

final TextView textView = getActivity().findViewById(R.id.textView);

Button button1 = getActivity().findViewById(R.id.for1);

button1.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"1");

}

});

Button button2 = getActivity().findViewById(R.id.for2);

button2.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"2");

}

});

Button button3 = getActivity().findViewById(R.id.for3);

button3.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"3");

}

});

Button button4 = getActivity().findViewById(R.id.for4);

button4.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"4");

}

});

Button button5 = getActivity().findViewById(R.id.for5);

button5.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"5");

}

});

Button button6 = getActivity().findViewById(R.id.for6);

button6.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"6");

}

});

Button button7 = getActivity().findViewById(R.id.for7);

button7.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"7");

}

});

Button button8 = getActivity().findViewById(R.id.for8);

button8.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"8");

}

});

Button button9 = getActivity().findViewById(R.id.for9);

button9.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"9");

}

});

Button button0 = getActivity().findViewById(R.id.for0);

button0.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"0");

}

});

Button buttonQ = getActivity().findViewById(R.id.forQ);

buttonQ.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"Q");

}

});

Button buttonW = getActivity().findViewById(R.id.forW);

buttonW.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"W");

}

});

Button buttonE = getActivity().findViewById(R.id.forE);

buttonE.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"E");

}

});

Button buttonR = getActivity().findViewById(R.id.forR);

buttonR.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"R");

}

});

Button buttonT = getActivity().findViewById(R.id.forT);

buttonT.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"T");

}

});

Button buttonY = getActivity().findViewById(R.id.forY);

buttonY.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"Y");

}

});

Button buttonU = getActivity().findViewById(R.id.forU);

buttonU.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"U");

}

});

Button buttonI = getActivity().findViewById(R.id.forI);

buttonI.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"I");

}

});

Button buttonO = getActivity().findViewById(R.id.forO);

buttonO.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"O");

}

});

Button buttonP = getActivity().findViewById(R.id.forP);

buttonP.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"P");

}

});

Button buttonA = getActivity().findViewById(R.id.forA);

buttonA.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"A");

}

});

Button buttonS = getActivity().findViewById(R.id.forS);

buttonS.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"S");

}

});

Button buttonD = getActivity().findViewById(R.id.forD);

buttonD.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"D");

}

});

Button buttonF = getActivity().findViewById(R.id.forF);

buttonF.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"F");

}

});

Button buttonG = getActivity().findViewById(R.id.forG);

buttonG.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"G");

}

});

Button buttonH = getActivity().findViewById(R.id.forH);

buttonH.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"H");

}

});

Button buttonJ = getActivity().findViewById(R.id.forJ);

buttonJ.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"J");

}

});

Button buttonK = getActivity().findViewById(R.id.forK);

buttonK.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"K");

}

});

Button buttonL = getActivity().findViewById(R.id.forL);

buttonL.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"L");

}

});

Button buttonZ = getActivity().findViewById(R.id.forZ);

buttonZ.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"Z");

}

});

Button buttonX = getActivity().findViewById(R.id.forX);

buttonX.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"X");

}

});

Button buttonC = getActivity().findViewById(R.id.forC);

buttonC.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"C");

}

});

Button buttonV = getActivity().findViewById(R.id.forV);

buttonV.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"V");

}

});

Button buttonB = getActivity().findViewById(R.id.forB);

buttonB.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"B");

}

});

Button buttonN = getActivity().findViewById(R.id.forN);

buttonN.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"N");

}

});

Button buttonM = getActivity().findViewById(R.id.forM);

buttonM.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+"M");

}

});

Button buttonSpace = getActivity().findViewById(R.id.forSpace);

buttonSpace.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+" ");

}

});

Button buttonBackSpace=getActivity().findViewById(R.id.forBackSpace);

buttonBackSpace.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

String str = textView.getText().toString();

if(str.length()>=1){

str=str.substring(0,str.length()-1);

textView.setText(str);

}

}

});

buttonBackSpace.setOnLongClickListener(new View.OnLongClickListener() {

@Override

public boolean onLongClick(View view) {

textView.setText("");

return true;

}

});

Button buttoncomma = getActivity().findViewById(R.id.forComma);

buttoncomma.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+",");

}

});

Button buttonStop = getActivity().findViewById(R.id.forStop);

buttonStop.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

textView.setText(textView.getText()+".");

}

});

}

}

**Implementation**

* There are two fragments in the main activity, fragment 1 is on the upper half with a textview and fragment 2 is on the lower half with the buttons of a keypad.
* Every time each button is pressed, as per the action of the button, we are able to view result on the first activity.
* If we need to clear the entire text, then long click on the backspace button and everything on the text view will be cleared.

**Screenshot**

|  |  |
| --- | --- |
|  | A screenshot of a cell phone  Description automatically generated |
|  | A screenshot of a cell phone  Description automatically generated |