Bahria University,

Karachi Campus



LAB EXPERIMENT NO.

\_\_\_\_\_\_\_5\_\_\_\_\_\_\_

LIST OF TASKS

|  |  |
| --- | --- |
| TASK NO | OBJECTIVE |
| 1 | **Implement a full functional calculator using appropriate layout and event handling technique.** |

Submitted On:

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(Date: 15/4/23)

**Task#1: Implement a full functional calculator using appropriate layout and event handling technique.**

Java Code:

**package** com.example.lab;  
**import** android.os.Bundle;  
**import** androidx.appcompat.app.AppCompatActivity;  
**import** android.view.View;  
**import** android.widget.Button;

**import** android.widget.EditText;

**public class** MainActivity **extends** AppCompatActivity {  
Button **button0**, **button1**, **button2**, **button3**, **button4**, **button5**, **button6**,  
**button7**, **button8**, **button9**, **buttonAdd**, **buttonSub**, **buttonDivision**,  
**buttonMul**, **button10**, **buttonC**, **buttonEqual**;  
EditText **editText**;

**float mValueOne**, **mValueTwo**;

**boolean Addition**, **Subtract**, **Multiplication**, **Division**;

@Override  
**protected void** onCreate(Bundle savedInstanceState) {  
**super**.onCreate(savedInstanceState);  
setContentView(R.layout.***activity\_main***);

**button0** = (Button) findViewById(R.id.***button0***);  
**button1** = (Button) findViewById(R.id.***button1***);  
**button2** = (Button) findViewById(R.id.***button2***);  
**button3** = (Button) findViewById(R.id.***button3***);  
**button4** = (Button) findViewById(R.id.***button4***);  
**button5** = (Button) findViewById(R.id.***button5***);  
**button6** = (Button) findViewById(R.id.***button6***);  
**button7** = (Button) findViewById(R.id.***button7***);  
**button8** = (Button) findViewById(R.id.***button8***);  
**button9** = (Button) findViewById(R.id.***button9***);  
**button10** = (Button) findViewById(R.id.***button10***);  
**buttonAdd** = (Button) findViewById(R.id.***buttonadd***);  
**buttonSub** = (Button) findViewById(R.id.***buttonsub***);  
**buttonMul** = (Button) findViewById(R.id.***buttonmul***);  
**buttonDivision** = (Button) findViewById(R.id.***buttondiv***);  
**buttonC** = (Button) findViewById(R.id.***buttonC***);  
**buttonEqual** = (Button) findViewById(R.id.***buttoneql***);  
**editText** = (EditText) findViewById(R.id.***edt1***);

**button1**.setOnClickListener(**new** View.OnClickListener() {  
@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"1"**);

**button2**.setOnClickListener(**new** View.OnClickListener() {

@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"2"**);  
**button3**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**editText**.setText(**editText**.getText() + **"3"**);

**button4**.setOnClickListener(**new** View.OnClickListener() {

@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"4"**);  
**button5**.setOnClickListener(**new** View.OnClickListener() {

@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"5"**);

**button6**.setOnClickListener(**new** View.OnClickListener() {

@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"6"**);

**button7**.setOnClickListener(**new** View.OnClickListener() {

@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"7"**);

**button8**.setOnClickListener(**new** View.OnClickListener() {

@Override  
**public void** onClick(View v) {  
**editText**.setText(**editText**.getText() + **"8"**);

**button9**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**editText**.setText(**editText**.getText() + **"9"**);  
 **button0**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**editText**.setText(**editText**.getText() + **"0"**);

**buttonAdd**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**if** (**editText** == **null**) {

**editText**.setText(**""**);

} **else** {

**mValueOne** = Float.*parseFloat*(**editText**.getText() + **""**);

**Addition** = **true**;

**editText**.setText(**null**);

}

**buttonSub**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**mValueOne** = Float.*parseFloat*(**editText**.getText() + **""**);

**Subtract** = **true**;

**editText**.setText(**null**);

**buttonMul**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**mValueOne** = Float.*parseFloat*(**editText**.getText() + **""**);

**Multiplication** = **true**;

**editText**.setText(**null**);

**buttonDivision**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**mValueOne** = Float.*parseFloat*(**editText**.getText() + **""**);

**Division** = **true**;

**editText**.setText(**null**);

**buttonEqual**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**mValueTwo** = Float.*parseFloat*(**editText**.getText() + **""**);

**if** (**Addition** == **true**) {

**editText**.setText(**mValueOne** + **mValueTwo** + **""**);

**Addition** = **false**;

}

**if** (**Subtract** == **true**) {

**editText**.setText(**mValueOne** - **mValueTwo** + **""**);

**Subtract** = **false**;

}

**if** (**Multiplication** == **true**) {

**editText**.setText(**mValueOne** \* **mValueTwo** + **""**);

**Multiplication** = **false**;

}

**if** (**Division** == **true**) {

**editText**.setText(**mValueOne** / **mValueTwo** + **""**);

**Division** = **false**;

**buttonC**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**editText**.setText(**""**);

**button10**.setOnClickListener(**new** View.OnClickListener() {

@Override

**public void** onClick(View v) {

**editText**.setText(**editText**.getText() + **"."**);

OUTPUT

