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Course - BCA
Semester - 5-A
Roll No - 54
University Roll No - 1921163
Subject - Android Development lab

Qus1. Create a simple application to implement a simple calculator in android.

activity_main.xml

```xml
<?xml version = "1.0" encoding = "utf-8"?>
<LinearLayoutxmlns : android = "http://schemas.
                        android.com/apk/res/android"
    xmlns : app = "http://schemas.android.com/apk/res-
                                                auto"

    android : layout_width = "match_parent"
    android : layout_height = "match_parent"
    android : paddling = "16 dp"
    android : orientation = "vertical"
    tools : context = "MainActivity">

    <EditText
    android : id = "@+id/et1"
    android : layout_width = "match_parent"
    android : layout_height = "wrap_parent"
    android : inputType = "number"
    android : minHeight = "48 dp"
    tools : ignore = "SpeakableTextPresentCheck" />
```

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```xml
<EditText
  android:id ="@+id/et2"
  android:layout_width = "match_parent"
  android:layout_height = "wrap_parent"
  android:layout_below = "@+id/et1"
  android:layout_alignParentStart = "true"
  android:inputType = "number"
  android:inputHeight = "48 dp"
  tools:ignore = "SpeakableTextPresentCheck" />

  <TextView
    android:id = "@id/tv1"
    android:layout_width = "wrap_content"
    android:layout_height = "wrap_content"
    android:layout_below = "@+id/et2'
    android:layout_centerHorizontal = "true'
    android:layout_marginTop = "16 dp"
    android:text = "0"
    android:textColor = "@android:color/black"
    android:textSize = "50 sp" />

    <Button
      android:Id = "@+id/b1"
      android:layout_width = "wrap_content"
      android:layout_height = "wrap_content"
      android:layout_centerHorizontal = "true"
```

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```xml
android: layout_ centerVertical = "true"
android: text = " add" />

< Button
    android: id = "@+id/b2"
    android: layout_width = "wrap_content"
    android: layout_height = "wrap_content"
    android: layout_centerHorizontal = "true"
    android: layout_centerVertical = "true"
    android: text = "Sub" />

< Button
    android: id = "@+id/b3"
    android: layout_width = "wrap_content"
    android: layout_height = "wrap_content"
    android: layout_centerVertical = "true"
    android: text = "Sub" />

< Button
    android: id = "@+id/b4"
    android: layout_width = "wrap_content"
    android: layout_height = "wrap_content"
    android: layout_centerHorizontal = "true"
    android: layout_centerVertical = "true"
    android: text = "div" />

</ linearlayout>
```

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MainActivity.java

```java
package com.example.add;
import android.as.Bundle;
import android.support.v7.app.AppCompactActivity;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
EditText edt1, edt2;
TextView txtv1;
Button btn1, btn2, btn3, btn4;

@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
edt1 = findViewById(R.id.et1);
edt2 = findViewById(R.id.et2);
txtv1 = findViewById(R.id.tv1);
btn1 = findViewById(R.id.b1);
btn2 = findViewById(R.id.b2);
btn3 = findViewById(R.id.b3);
btn4 = findViewById(R.id.b4);
```

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```java
btn1. setOnClickListener (v → {
if (edit1. getText (). toString (). length () == 0) {
edit . setText ("0");
    }
if ( edit2. getText (). toString (). length () == 0) {
  edt2. setText ("0");
    }
intnum1 = Integer. parseInt (edt1. getText (). toString ());
intnum2 = Integer. parseInt (edt2. getText (). toString ();
intsum = num1 + num2;
txtv1. setText (String . valueOf (sum));
    });
btn2. setOnClickListener (v → {
  if (edt1. getText (). toString (). length ()) == 0) {
  edt1. setText ("0");
    }
if ( edt2. getText (). toString (). length ()==0) {
  edt2. setText ("0");
    }
intnum1 = Integer. parseInt (edt1. getText (). toString ());
intnum2 = Integer. parseInt (edt2. getText (). toString ());
int  sub = num1 - num2;
txtv1. setText (String . valueOf (sub));
    });
```

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```
btn3. setOnClicklistener (v → {
if (edit1. getText(). toString(). length() == 0) {
edt1 . setText ("0");
    }
if (edt2. getText(). toString(). length() == 0) {
edt2. setText (" 0");
    }
int num1 = Integer. parseInt (edtt. getText(). toString());
int num2 = Integer. parseInt (edt2. getText(). toString());
int mul = num1 * num2;

txtv1. setText (String. valueOf (mul));
    });
btn4. setOnClicklistener (v → {
if (edt1. getText(). toString(). length() == 0) {
edt1. setText ("0");
    }
if (edt2. getText(). toString(). length() == 0) {
edt2. setText ("0");
    }
int num1 = Integer. parseInt (edt1. getText(). toString());
int num2 = Integer. parseInt (edt2. getText(). toString());
int div = num1 / num2;
txtv1. setText (String. valueOf (div));
    });
  }
}
```