Practical No.: 02

Aim: Design Calculator Using Kotlin in Android Studio.

Source Code:

    a.   **activity_main.xml** .

Code:

```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:id="@+id/linearLayout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:layout_margin="20dp"
    android:fitsSystemWindows="true"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/eta"
        android:layout_width="323dp"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Enter a" />

    <EditText
        android:id="@+id/etb"
        android:layout_width="326dp"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Enter b" />

    <TextView
        android:id="@+id/rv"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_margin="20dp"
        android:text="Result" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="horizontal">

        <Button
            android:id="@+id/btnadd"
```

```xml
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="+" />

                <Button
                    android:id="@+id/btnsub"
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="-" />

                <Button
                    android:id="@+id/btnmul"
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="*" />

                <Button
                    android:id="@+id/btndiv"
                    android:layout_width="wrap_content"
                    android:layout_height="wrap_content"
                    android:text="/" />

        </LinearLayout>

</LinearLayout>
```

Source Code:

   b. MainActivity.kt .

Code:

```kotlin
package com.example.calculator

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.view.View
import android.widget.Button
import android.widget.EditText
import  android.widget.TextView

class MainActivity : AppCompatActivity(), View.OnClickListener {
    lateinit var btnadd: Button
    lateinit var btnsub: Button
    lateinit var btnmul: Button
    lateinit var btndiv: Button
    lateinit var eta: EditText
    lateinit var etb: EditText
    lateinit var rv: TextView
```

```kotlin
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        btnadd=findViewById(R.id.btnadd)
        btnsub=findViewById(R.id.btnsub)
        btnmul=findViewById(R.id.btnmul)
        btndiv=findViewById(R.id.btndiv)

        eta=findViewById(R.id.eta)
        etb=findViewById(R.id.etb)
        rv=findViewById(R.id.rv)

        btnadd.setOnClickListener(this)
        btnsub.setOnClickListener(this)
        btnmul.setOnClickListener(this)
        btndiv.setOnClickListener(this)
    }

    override fun onClick(v: View?) {
        var a = eta.text.toString().toDouble()
        var b = etb.text.toString().toDouble()
        var result = 0.0
        when (v?.id) {
            R.id.btnadd -> {
                result = a + b
            }

            R.id.btnsub -> {
                result = a - b
            }

            R.id.btnmul -> {
                result = a * b
            }

            R.id.btndiv -> {
                result = a / b
            }
        }
        rv.text="Result is $result"
    }
}
```

Output: