

# ΜΑΘΗΜΑ 6

The image shows the Android Studio IDE with the following components:

- Resource Manager:** Shows the project structure for 'AddTwoF', including 'main/res/layout/activity\_main.xml'.
- Code Editor:** Displays the XML layout for 'activity\_main.xml' with the following code:

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res-auto"
3   xmlns:app="http://schemas.android.com/apk/res-auto"
4   xmlns:tools="http://schemas.android.com/tools"
5   android:id="@+id/main"
6   android:layout_width="match_parent"
7   android:layout_height="match_parent"
8   tools:context=".MainActivity">
9
10   <EditText
11     android:id="@+id/etNum1"
12     android:layout_width="wrap_content"
13     android:layout_height="wrap_content"
14     android:layout_marginBottom="500dp"
15     android:ems="10"
16     android:inputType="number"
17     app:layout_constraintBottom_toBottomOf="parent"
18     app:layout_constraintEnd_toEndOf="parent"
19     app:layout_constraintStart_toStartOf="parent"
20     app:layout_constraintTop_toTopOf="parent" />
21
22   <EditText
23     android:id="@+id/etNum2"
24     android:layout_width="wrap_content"
25     android:layout_height="wrap_content"
26     android:ems="10"
27     android:inputType="number"
28     app:layout_constraintBottom_toBottomOf="parent"
29     app:layout_constraintEnd_toEndOf="parent"
30     app:layout_constraintHorizontal_bias="0.502"
31     app:layout_constraintStart_toStartOf="parent"
32     app:layout_constraintTop_toTopOf="parent"
33     app:layout_constraintVertical_bias="0.3" />
34
35   <Button
36     android:id="@+id/btnAdd"
37     android:layout_width="wrap_content"
38     android:layout_height="wrap_content"
39     android:text="add" />
```
- Device Manager:** Shows a virtual device named 'Pixel 8 Pro API 26' running the application.
- Running Device:** Displays the app's UI, which includes two input fields containing '10' and '20', a purple 'add' button, and the text 'Answer 30'. A numeric keypad is visible at the bottom of the screen.

etNum1

etNum1

add

btnAdd

Answer

tvAnswer

```
<?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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/etNum1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="50dp"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/etNum2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.502"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.3" />

    <Button
        android:id="@+id/btnAdd"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="add"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.407" />

    <TextView
        android:id="@+id/tvAnswer"
        android:layout_width="85dp"
        android:layout_height="39dp"
        android:layout_marginTop="64dp"
        android:text="Answer"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.506"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/btnAdd"
        app:layout_constraintVertical_bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

```
package com.example.addtwof;

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

    2 usages
    private EditText num1;
    2 usages
    private EditText num2;
    2 usages
    private Button add;
    2 usages
    private TextView result;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);

        num1 = (EditText) findViewById(R.id.etNum1);
        num2 = (EditText) findViewById(R.id.etNum2);
        add = (Button) findViewById(R.id.btnAdd);
        result = (TextView) findViewById(R.id.tvAnswer);
        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int number1 = Integer.parseInt(num1.getText().toString());
                int number2 = Integer.parseInt(num2.getText().toString());
                int sum=number1+number2;
                result.setText("Answer "+ String.valueOf(sum));
            }
        });
    }
}
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<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
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        android:layout_height="wrap_content"
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        android:ems="10"
        android:inputType="number"
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        android:layout_height="39dp"
        android:layout_marginTop="64dp"
        android:text="Answer"
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        app:layout_constraintEnd_toEndOf="parent"
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            public void onClick(View v) {
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                int sum = number1 + number2;
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            }
        });
    }
}
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import android.widget.EditText;
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    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);

        num1 = (EditText) findViewById(R.id.etNum1);
        num2 = (EditText) findViewById(R.id.etNum2);
        add = (Button) findViewById(R.id.btnAdd);
        result = (TextView) findViewById(R.id.tvAnswer);
        add.setOnClickListener(new View.OnClickListener() {
            @Override
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                int sum = number1 + number2;
                result.setText("Answer " + String.valueOf(sum));
            }
        });
    }
}

```