CSE- 4002 LAB-11 Assignment

Academic year: 2020-2021   **Semester:** WIN

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1.) Display Text Message using Toast

JAVA CODE :

```java
package com.taran.madlab1;
        import androidx.appcompat.app.AppCompatActivity;
        import android.os.Bundle;
        import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "Hello World", Toast.LENGTH_LONG).show();
    }
}
```
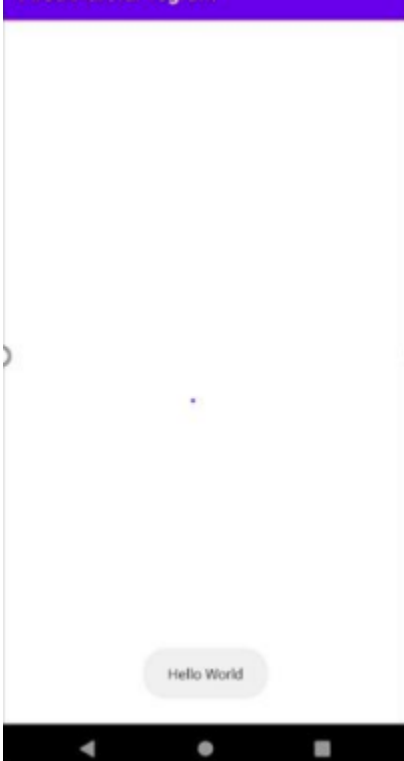
XML CODE:

```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```


2.) Create different types of Text Views. Take the screenshot of the output to find the difference.

JAVA CODE:

```java
package com.example.madlab1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
```

```java
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "Hello World", Toast.LENGTH_LONG).show();
    }
}
```

XML CODE:

```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Different Types of TextViews"
        android:textSize="25sp"
        tools:layout_editor_absoluteX="40dp"
        tools:layout_editor_absoluteY="56dp" />

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="PLAIN TEXT"
        android:inputType="textPersonName"
        tools:layout_editor_absoluteX="137dp"
        tools:layout_editor_absoluteY="121dp" />

    <EditText
        android:id="@+id/editTextTextEmailAddress"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="E-MAIL"
        android:inputType="textEmailAddress"
        tools:layout_editor_absoluteX="137dp"
        tools:layout_editor_absoluteY="327dp" />

    <EditText
```

```
    android:id="@+id/editTextTime"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="TIME"
    android:inputType="time"
    tools:layout_editor_absoluteX="137dp"
    tools:layout_editor_absoluteY="223dp" />

<EditText
    android:id="@+id/editTextDate"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:hint="DATE"
    android:inputType="date"
    tools:layout_editor_absoluteX="137dp"
    tools:layout_editor_absoluteY="412dp" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Type 1"
    tools:layout_editor_absoluteX="40dp"
    tools:layout_editor_absoluteY="135dp" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Type 2"
    tools:layout_editor_absoluteX="40dp"
    tools:layout_editor_absoluteY="230dp" />

<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Type 3"
    tools:layout_editor_absoluteX="40dp"
    tools:layout_editor_absoluteY="339dp" />

<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```xml
        android:text="Type 4"
        tools:layout_editor_absoluteX="40dp"
        tools:layout_editor_absoluteY="427dp" />

    <EditText
        android:id="@+id/editTextPhone"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="phone"
        android:inputType="phone"
        tools:layout_editor_absoluteX="137dp"
        tools:layout_editor_absoluteY="495dp" />

    <TextView
        android:id="@+id/textView6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Type 5"
        tools:layout_editor_absoluteX="40dp"
        tools:layout_editor_absoluteY="512dp" />

    <EditText
        android:id="@+id/editTextTextPassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:hint="password"
        android:inputType="textPassword"
        tools:layout_editor_absoluteX="137dp"
        tools:layout_editor_absoluteY="582dp" />

    <TextView
        android:id="@+id/textView8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Type 6"
        tools:layout_editor_absoluteX="40dp"
        tools:layout_editor_absoluteY="600dp" />

</androidx.constraintlayout.widget.ConstraintLayout>
```
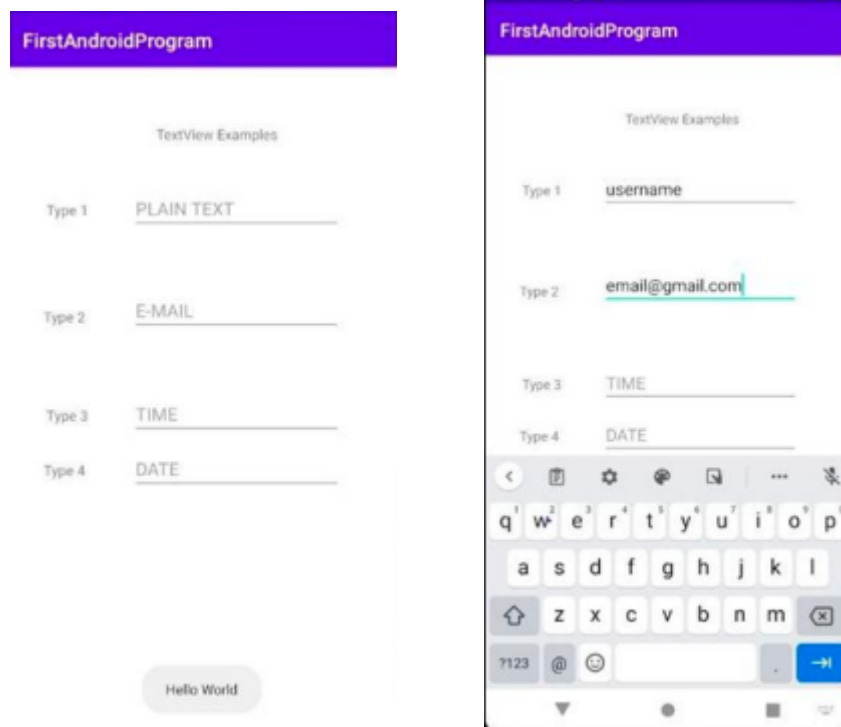
3.) Read the Name, Regno, Department and college. Display "Welcome Name".

JAVA CODE:

```java
package com.example.madlab1;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle; import
        android.view.View; import
        android.widget.Button; import
        android.widget.EditText; import
        android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText t1;
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "Details Page", Toast.LENGTH_LONG).show();
        t1 = findViewById(R.id.T1);
        b1 = findViewById(R.id.B1);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
```

```
        Toast.makeText(getApplicationContext(), ("Welcome " +
                 t1.getText().toString()), Toast.LENGTH_LONG).show();
            }
        });
    }
}
```

XML CODE:

```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="93dp"
        android:text="Enter The Details"
        android:textColor="@color/black"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/T1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="56dp"
        android:ems="10" android:hint="Name"
        android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView6" />
    <EditText
        android:id="@+id/editTextTextPersonName3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="1dp"
        android:layout_marginTop="25dp"
        android:ems="10"
        android:hint="RegNo"
        android:inputType="textPersonName"
```

```xml
        app:layout_constraintStart_toStartOf="@+id/T1"
        app:layout_constraintTop_toBottomOf="@+id/T1" />
    <EditText
        android:id="@+id/editTextTextPersonName4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="28dp"
        android:layout_marginEnd="1dp"
        android:ems="10" android:hint="Department"
        android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="@+id/editTextTextPersonName3"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName3" />
    <EditText
        android:id="@+id/editTextTextPersonName5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="27dp"
        android:ems="10"
        android:hint="College"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="@+id/editTextTextPersonName4"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName4" />
    <Button
        android:id="@+id/B1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="68dp"
        android:text="REGISTER"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName5" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

FirstAndroidProgram

Enter The Details

Name

RegNo

Department

College

REGISTER

Details Page

4.) Create a login page to read Userid and Password. Check for validity and display "Login Successful" or "Login Failed".

JAVA CODE:

```java
package com.example.madlab1;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle; import
        android.view.View; import
        android.widget.Button; import
        android.widget.EditText; import
        android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText t1;
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "Details Page", Toast.LENGTH_LONG).show();
        t1 = findViewById(R.id.T1);
        b1 = findViewById(R.id.B1);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(getApplicationContext(), ("Welcome " +
```

```
                    t1.getText().toString()), Toast.LENGTH_LONG).show();
            }
        });
    }
}
```

XML CODE:

```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/textView6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="93dp"
        android:text="Enter The Details"
        android:textColor="@color/black"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/T1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="56dp"
        android:ems="10" android:hint="Name"
        android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView6" />
    <EditText
        android:id="@+id/editTextTextPersonName3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="1dp"
        android:layout_marginTop="25dp"
        android:ems="10"
        android:hint="RegNo"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="@+id/T1"
```
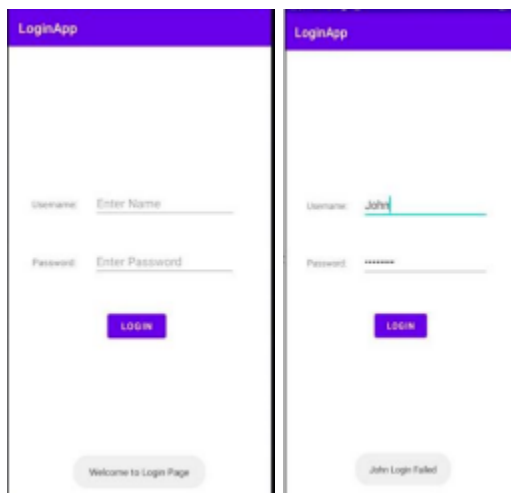
```
        app:layout_constraintTop_toBottomOf="@+id/T1" />
    <EditText
        android:id="@+id/editTextTextPersonName4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="28dp"
        android:layout_marginEnd="1dp"
        android:ems="10" android:hint="Department"
        android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="@+id/editTextTextPersonName3"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName3" />
    <EditText
        android:id="@+id/editTextTextPersonName5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="27dp"
        android:ems="10"
        android:hint="College"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="@+id/editTextTextPersonName4"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName4" />
    <Button
        android:id="@+id/B1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="68dp"
        android:text="REGISTER"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName5" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

5.) Read two numbers using Text to perform ADD, SUBTRACT, MULTIPLY and DIVIDE and display the output in a Text.

JAVA CODE:

```java
package com.example.madlab1;

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; import
        android.widget.Toast;
public class MainActivity extends AppCompatActivity {
    EditText t1, t2;
    Button b1, b2, b3, b4, b5;
    TextView r1; int
            n1, n2, res;
    String result;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        Toast.makeText(this, "Simple Calculator", Toast.LENGTH_LONG).show();
        t1 = findViewById(R.id.T1);
        t2 = findViewById(R.id.T2);
        b1 = findViewById(R.id.B1);
        b2 = findViewById(R.id.B2);
        b3 = findViewById(R.id.B3);
        b4 = findViewById(R.id.B4);
        b5 = findViewById(R.id.B5);
        r1 = findViewById(R.id.R1);
        b1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                n1 = Integer.parseInt(t1.getText().toString());
                n2 = Integer.parseInt(t2.getText().toString());
                res = n1 + n2;
                result = (r1.getText().toString() + res);
                r1.setText(result);
            }
        });
        b2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
```

```java
            n1 = Integer.parseInt(t1.getText().toString());
            n2 = Integer.parseInt(t2.getText().toString());
            res = n1 - n2;
            result = (r1.getText().toString() + res);
            r1.setText(result);
        }
    });
    b3.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            n1 = Integer.parseInt(t1.getText().toString());
            n2 = Integer.parseInt(t2.getText().toString());
            res = n1 * n2;
            result = (r1.getText().toString() + res);
            r1.setText(result);
        }
    });
    b4.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            n1 = Integer.parseInt(t1.getText().toString());
            n2 = Integer.parseInt(t2.getText().toString());
            res = n1 / n2;
            result = (r1.getText().toString() + res);
            r1.setText(result);
        }
    });
    b5.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            r1.setText("RESULT: ");
        }
    });
    }
}
```

XML CODE:

```xml
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <EditText
```

```xml
        android:id="@+id/T1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="18dp"
        android:layout_marginTop="134dp"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintStart_toEndOf="@+id/textView7"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/T2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="17dp"
        android:layout_marginTop="47dp"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintStart_toEndOf="@+id/textView8"
        app:layout_constraintTop_toBottomOf="@+id/T1" />
    <TextView
        android:id="@+id/textView7"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="27dp"
        android:layout_marginTop="9dp"
        android:text="Number 1:"
        android:textColor="@color/black"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="@+id/T1" />
    <TextView
        android:id="@+id/textView8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="28dp" android:text="Number
2:" android:textColor="@color/black"
        app:layout_constraintBaseline_toBaselineOf="@+id/T2"
        app:layout_constraintStart_toStartOf="parent" />
    <Button
        android:id="@+id/B1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="41dp"
        android:text="ADD"
        app:backgroundTint="@color/black"
        app:layout_constraintEnd_toStartOf="@+id/B2"
        app:layout_constraintTop_toTopOf="@+id/B2" />
    <Button
```

```xml
    android:id="@+id/B2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="94dp"
    android:layout_marginEnd="84dp" android:text="SUB"
    app:backgroundTint="@color/black"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/T2" />
<Button
    android:id="@+id/B3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="17dp" android:text="MUL"
    app:backgroundTint="@color/black"
    app:iconTint="#FFFFFF"
    app:layout_constraintStart_toStartOf="@+id/B1"
    app:layout_constraintTop_toBottomOf="@+id/B1" />
<Button
    android:id="@+id/B4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="17dp" android:text="DIV"
    app:backgroundTint="@color/black"
    app:layout_constraintStart_toStartOf="@+id/B2"
    app:layout_constraintTop_toBottomOf="@+id/B2" />
<TextView
    android:id="@+id/R1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="48dp"
    android:layout_marginBottom="72dp"
    android:text="RESULT: "
    android:textColor="@color/black"
    android:textSize="24sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="parent" />
<Button
    android:id="@+id/B5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="61dp"
    android:layout_marginTop="21dp"
    android:layout_marginEnd="61dp"
    android:text="CLEAR"
    app:backgroundTint="@color/teal_700"
    app:layout_constraintEnd_toEndOf="@+id/T2"
    app:layout_constraintStart_toStartOf="@+id/B3"
```

```
        app:layout_constraintTop_toBottomOf="@+id/B4" />
</androidx.constraintlayout.widget.ConstraintLayout>
```