

Assignment1 - Q1

Addition in android studio

xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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">
```

```
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="296dp"
    android:layout_marginBottom="377dp"
    android:text="Add"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.117"
    app:layout_constraintStart_toStartOf="parent"
    tools:layout_editor_absoluteY="284dp" />
```

```
<EditText
```

```
    android:id="@+id/val1"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="176dp"
android:layout_marginBottom="568dp"
android:ems="10"
android:inputType="textPersonName"
android:text=""
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.164"
app:layout_constraintStart_toStartOf="parent"
tools:layout_editor_absoluteY="75dp" />
```

<EditText

```
android:id="@+id/val2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="179dp"
android:layout_marginBottom="499dp"
android:ems="10"
android:inputType="textPersonName"
android:text=""
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.164"
app:layout_constraintStart_toStartOf="parent"
tools:layout_editor_absoluteY="143dp" />
```

```
<TextView
    android:id="@+id/result"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="383dp"
    android:layout_marginBottom="446dp"
    android:text=""
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.093"
    app:layout_constraintStart_toStartOf="parent"
    tools:layout_editor_absoluteY="221dp" />
```

```
</RelativeLayout>
```

MainActivity.java

```
package com.example.a17_07_2024_androidlecture;

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;

public class MainActivity extends AppCompatActivity {
```

```

@Override

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);


    EditText ed1=(EditText) findViewById(R.id.val1);
    EditText ed2=(EditText) findViewById(R.id.val2);
    TextView te=(TextView) findViewById(R.id.result);
    Button b=(Button) findViewById(R.id.button);


    b.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View view) {

            int a = Integer.parseInt(ed1.getText().toString());
            int b = Integer.parseInt(ed2.getText().toString());

            int res;

            res=a+b;

            String s;

            s=Integer.toString(res);

            te.setText(s);

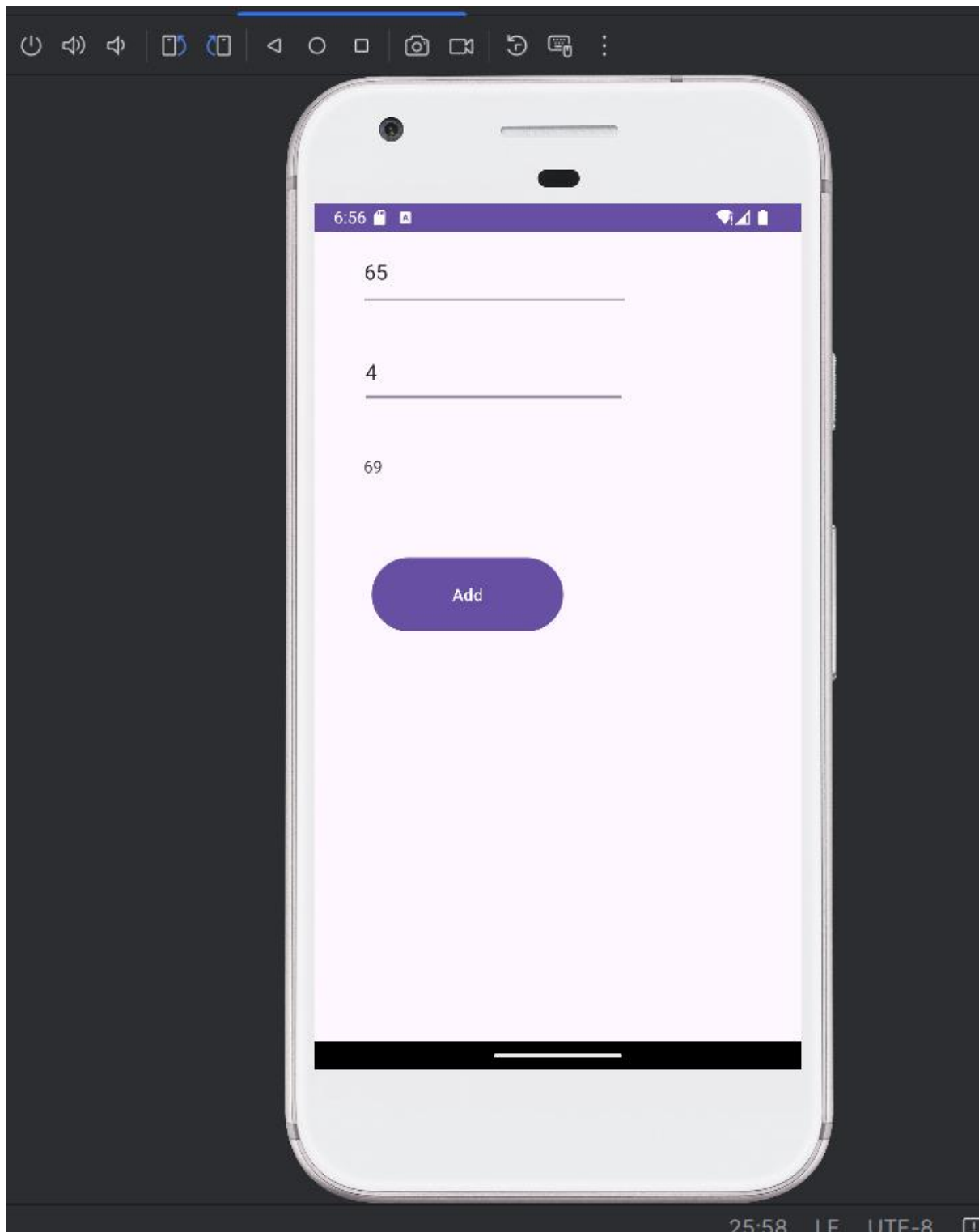
        }

    });

}
}

```

Output:



Assignment Q2

Basic Calculator in Android Studio

Xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/val1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Value 1"
        android:inputType="number"
        android:layout_marginTop="50dp"
        android:layout_centerHorizontal="true"/>

    <EditText
        android:id="@+id/val2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:hint="Value 2"
        android:inputType="number"
        android:layout_below="@id/val1"
        android:layout_marginTop="20dp"
```

```
    android:layout_centerHorizontal="true"/>
```

```
<TextView
```

```
    android:id="@+id/res"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Result"
```

```
    android:textSize="20sp"
```

```
    android:layout_below="@id/val2"
```

```
    android:layout_marginTop="20dp"
```

```
    android:layout_centerHorizontal="true"/>
```

```
<Button
```

```
    android:id="@+id/button_add"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Add"
```

```
    android:layout_below="@id/res"
```

```
    android:layout_marginTop="20dp"
```

```
    android:layout_centerHorizontal="true"/>
```

```
<Button
```

```
    android:id="@+id/button_sub"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Subtract"
```

```
    android:layout_below="@id/button_add"
```

```
    android:layout_marginTop="10dp"
```

```
    android:layout_centerHorizontal="true"/>
```

<Button

```
    android:id="@+id/button_mul"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Multiply"
    android:layout_below="@id/button_sub"
    android:layout_marginTop="10dp"
    android:layout_centerHorizontal="true"/>
```

<Button

```
    android:id="@+id/button_div"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Divide"
    android:layout_below="@id/button_mul"
    android:layout_marginTop="10dp"
    android:layout_centerHorizontal="true"/>
```

</RelativeLayout>

MainActivity.java

```
package com.example.assignment2;
```

```
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;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        EditText ed1 = (EditText) findViewById(R.id.val1);
```

```
        EditText ed2 = (EditText) findViewById(R.id.val2);
```

```
        TextView te = (TextView) findViewById(R.id.res);
```

```
        Button addButton = (Button) findViewById(R.id.button_add);
```

```
        Button subButton = (Button) findViewById(R.id.button_sub);
```

```
        Button mulButton = (Button) findViewById(R.id.button_mul);
```

```
        Button divButton = (Button) findViewById(R.id.button_div);
```

```
        addButton.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

```
            public void onClick(View view) {
```

```
int a = Integer.parseInt(ed1.getText().toString());  
int b = Integer.parseInt(ed2.getText().toString());  
int res = a + b;  
te.setText(Integer.toString(res));  
}  
});
```

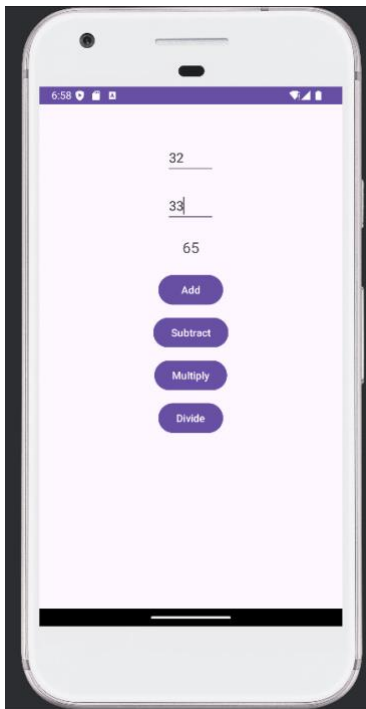
```
subButton.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        int a = Integer.parseInt(ed1.getText().toString());  
        int b = Integer.parseInt(ed2.getText().toString());  
        int res = a - b;  
        te.setText(Integer.toString(res));  
    }  
});
```

```
mulButton.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        int a = Integer.parseInt(ed1.getText().toString());  
        int b = Integer.parseInt(ed2.getText().toString());  
        int res = a * b;  
        te.setText(Integer.toString(res));  
    }  
});
```

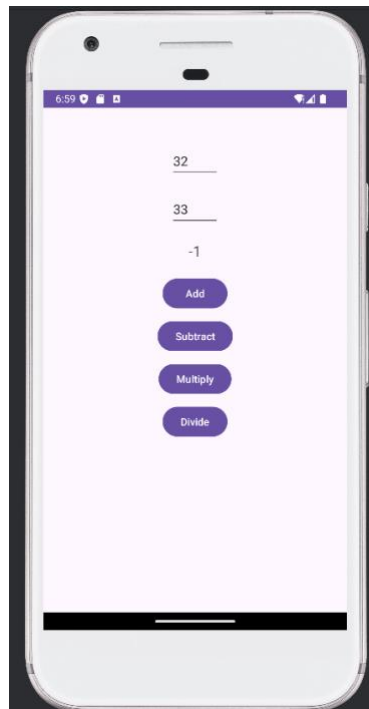
```
divButton.setOnClickListener(new View.OnClickListener() {  
    @Override
```

```
public void onClick(View view) {  
    int a = Integer.parseInt(ed1.getText().toString());  
    int b = Integer.parseInt(ed2.getText().toString());  
    if (b != 0) {  
        int res = a / b;  
        te.setText(Integer.toString(res));  
    } else {  
        te.setText("Cannot divide by zero");  
    }  
}  
});  
}  
}
```

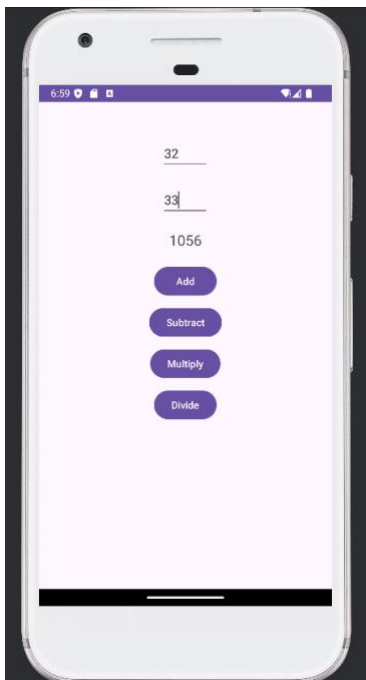
Output:



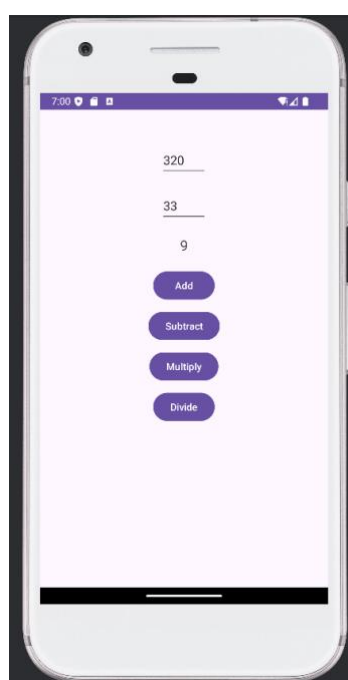
Addition



Subtraction



Multiplication



Divide

Assignment Q3

Activity Lifecycle operations

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:id="@+id/main"
    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_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

MainActivity.java

```
package com.example.assignment3;
```

```
import android.os.Bundle;
```

```
import androidx.activity.EdgeToEdge;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import androidx.core.graphics.Insets;
```

```
import androidx.core.view.ViewCompat;
```

```
import androidx.core.view.WindowInsetsCompat;
```

```
import android.util.Log;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private static final String msg = "MainActivity";
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        EdgeToEdge.enable(this);
```

```
        setContentView(R.layout.activity_main);
```

```
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v,  
insets) -> {
```

```
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
```

```
            v.setPadding(systemBars.left, systemBars.top, systemBars.right,  
systemBars.bottom);
```

```
            return insets;
```

```
        });
```

```
    Log.d(msg, "onCreate called");  
}
```

```
@Override  
protected void onStart() {  
    super.onStart();  
    Log.d(msg, "onStart called");  
}
```

```
@Override  
protected void onResume() {  
    super.onResume();  
    Log.d(msg, "onResume called");  
}
```

```
@Override  
protected void onPause() {  
    super.onPause();  
    Log.d(msg, "onPause called");  
}
```

```
@Override  
protected void onStop() {  
    super.onStop();  
    Log.d(msg, "onStop called");  
}
```

```
@Override  
protected void onDestroy() {
```

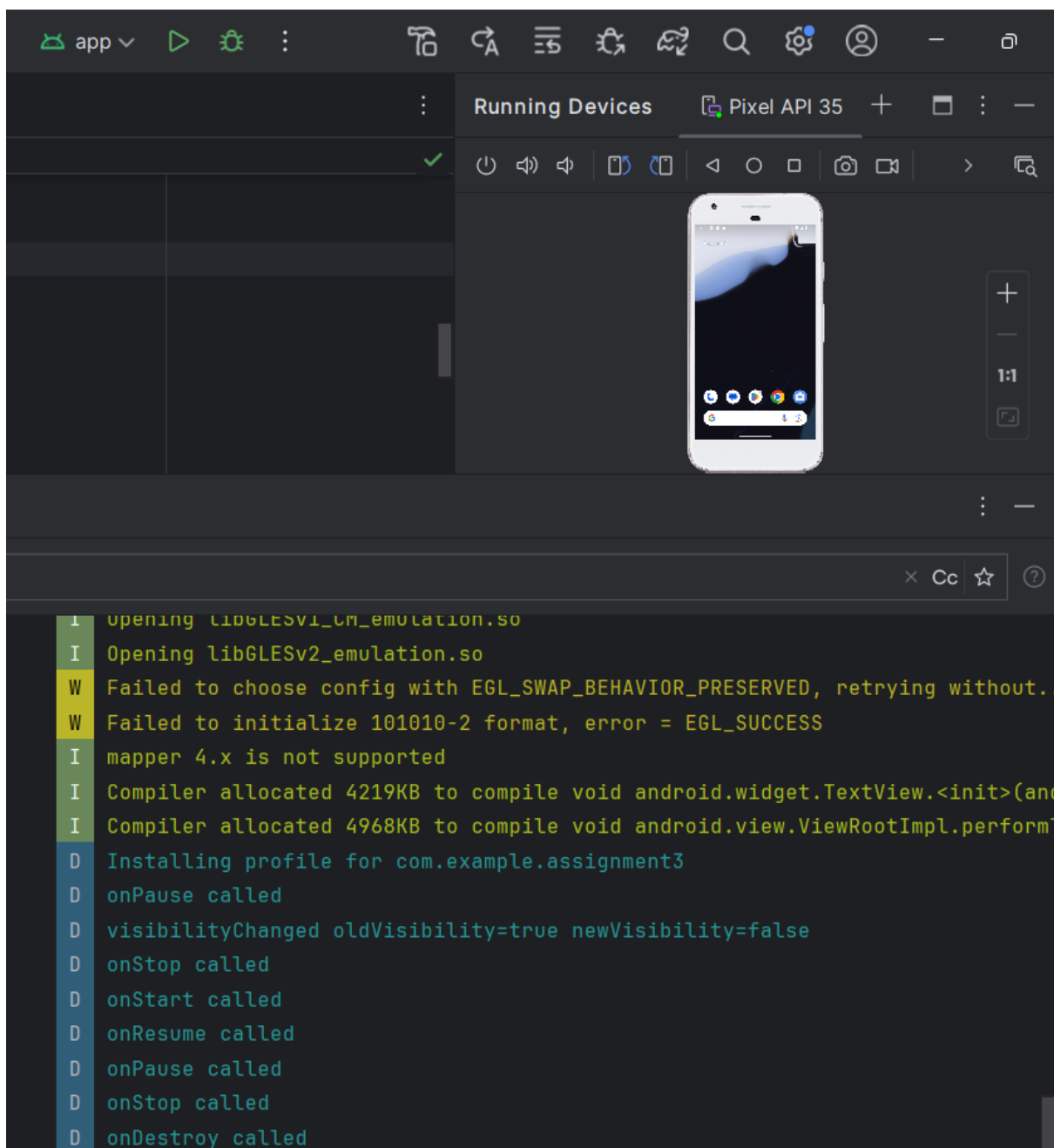
```

        super.onDestroy();
        Log.d(msg, "onDestroy called");
    }
}

```

Output:

Logcat



Assignment Q4

Xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/val1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="184dp"
        android:layout_marginBottom="542dp"
        android:ems="10"
        android:inputType="text"
        android:text=""
        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteX="41dp"
        tools:layout_editor_absoluteY="62dp" />

    <EditText
        android:id="@+id/val2"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="176dp"
android:layout_marginBottom="458dp"
android:ems="10"
android:inputType="text"
android:text=""
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="42dp"
tools:layout_editor_absoluteY="141dp" />
```

<TextView

```
android:id="@+id/res"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="321dp"
android:layout_marginBottom="380dp"
android:text=""
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="43dp"
tools:layout_editor_absoluteY="224dp" />
```

<Button

```
android:id="@+id/button"
android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="283dp"
    android:layout_marginBottom="295dp"
    android:text="Add"
    tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteX="34dp"
    tools:layout_editor_absoluteY="304dp" />
</RelativeLayout>
```

MainActivity.java

```
package com.example.myapplication;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.TextView;
```

```
import android.widget.Toast;
```

```
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 {
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        EditText ed1=(EditText) findViewById(R.id.val1);
```

```
        EditText ed2=(EditText) findViewById(R.id.val2);
```

```
        TextView te=(TextView) findViewById(R.id.res);
```

```
        Button b=(Button) findViewById(R.id.button);
```

```
        b.setOnClickListener(new View.OnClickListener() {
```

```
@Override

public void onClick(View view) {

    int a=Integer.parseInt(ed1.getText().toString());

    int b=Integer.parseInt(ed2.getText().toString());

    int res;

    res = a+b;

    String s;

    s=Integer.toString(res);

    te.setText(s);


    Toast.makeText(MainActivity.this,s+"is the
sum",Toast.LENGTH_SHORT).show();

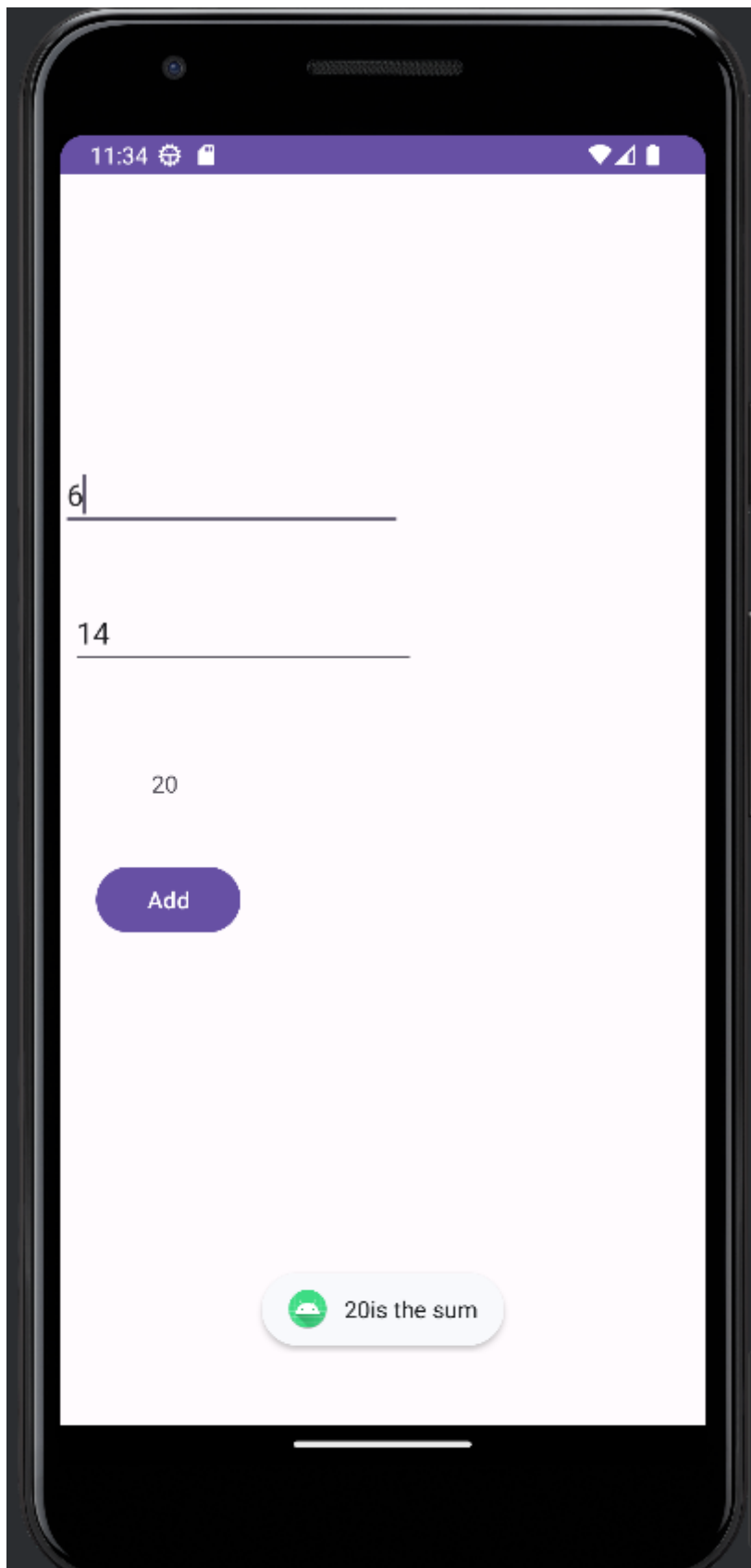
}

});

}

}
```

Output:



Assignment Q5

Xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/val1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="184dp"
        android:layout_marginBottom="542dp"
        android:ems="10"
        android:inputType="text"
        android:text=""
        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteX="41dp"
        tools:layout_editor_absoluteY="62dp" />

    <TextView
```

```
android:id="@+id/res"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="321dp"
android:layout_marginBottom="380dp"
android:text=""
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="43dp"
tools:layout_editor_absoluteY="224dp" />
```

<Button

```
android:id="@+id/button"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentEnd="true"
android:layout_alignParentBottom="true"
android:layout_marginEnd="283dp"
android:layout_marginBottom="295dp"
android:text="Check"
tools:ignore="MissingConstraints"
tools:layout_editor_absoluteX="34dp"
tools:layout_editor_absoluteY="304dp" />
```

</RelativeLayout>

MainActivity.java

```
package com.example.myapplication;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.TextView;
```

```
import android.widget.Toast;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private EditText ed1;
```

```
    private TextView te;
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        ed1 = findViewById(R.id.val1);
```

```
        te = findViewById(R.id.res);
```

```
        Button b = findViewById(R.id.button);
```

```
        b.setOnClickListener(new View.OnClickListener() {
```

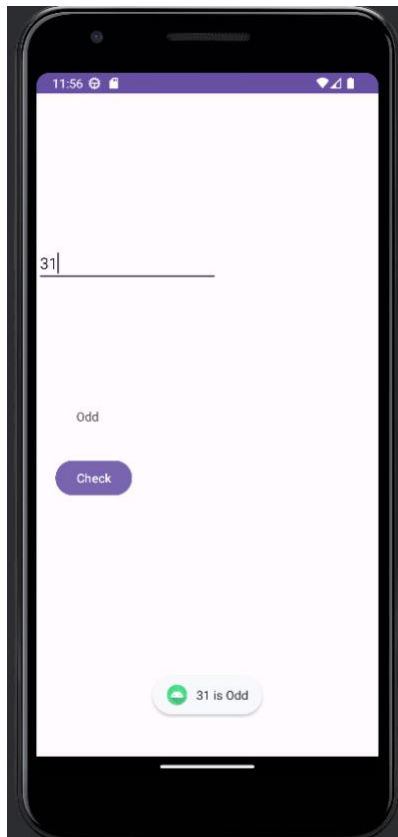
```
            @Override
```

```
            public void onClick(View view) {
```

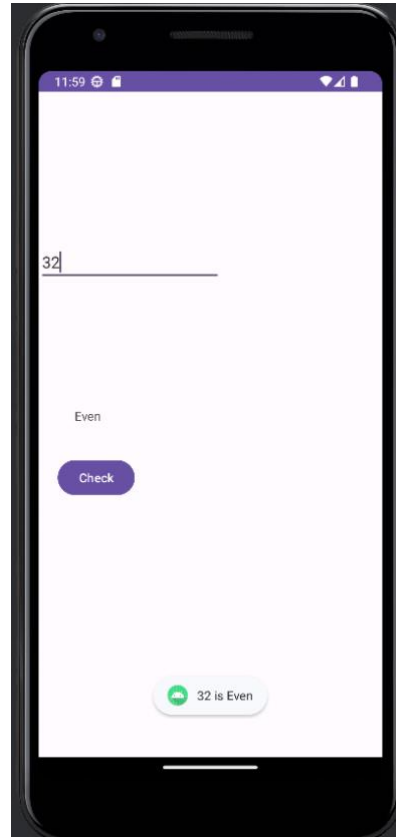
```
String input = ed1.getText().toString().trim(); // Trim to remove any
leading/trailing spaces
```

```
if (!input.isEmpty()) {
    try {
        int number = Integer.parseInt(input);
        String result = (number % 2 == 0) ? "Even" : "Odd";
        te.setText(result);
        Toast.makeText(MainActivity.this, number + " is " + result,
Toast.LENGTH_SHORT).show();
    } catch (NumberFormatException e) {
        Toast.makeText(MainActivity.this, "Invalid number format",
Toast.LENGTH_SHORT).show();
    }
} else {
    Toast.makeText(MainActivity.this, "Please enter a number",
Toast.LENGTH_SHORT).show();
}
});
}
}
```

Output:



Odd



Even

Assignment Q6

Xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/val1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="171dp"
        android:layout_marginBottom="583dp"
        android:ems="10"
        android:inputType="text"
        android:text=""
        tools:layout_editor_absoluteX="44dp"
        tools:layout_editor_absoluteY="90dp" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="260dp"
        android:layout_marginBottom="310dp"
        android:text="Check"
        tools:layout_editor_absoluteX="60dp"
        tools:layout_editor_absoluteY="307dp" />
</RelativeLayout>
```

MainActivity.java

```
package com.example.a20_07_2024;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private EditText e;
    private Button b;

    @Override
```

```

protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    e = findViewById(R.id.val1);
    b = findViewById(R.id.button);

    b.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            String numberStr = e.getText().toString().trim();
            if (!numberStr.isEmpty()) {
                int number = Integer.parseInt(numberStr);
                if (isPrime(number)) {
                    showToast(number + " is a prime number");
                } else {
                    showToast(number + " is not a prime number");
                }
            } else {
                showToast("Please enter a number");
            }
        }
    });
}

```

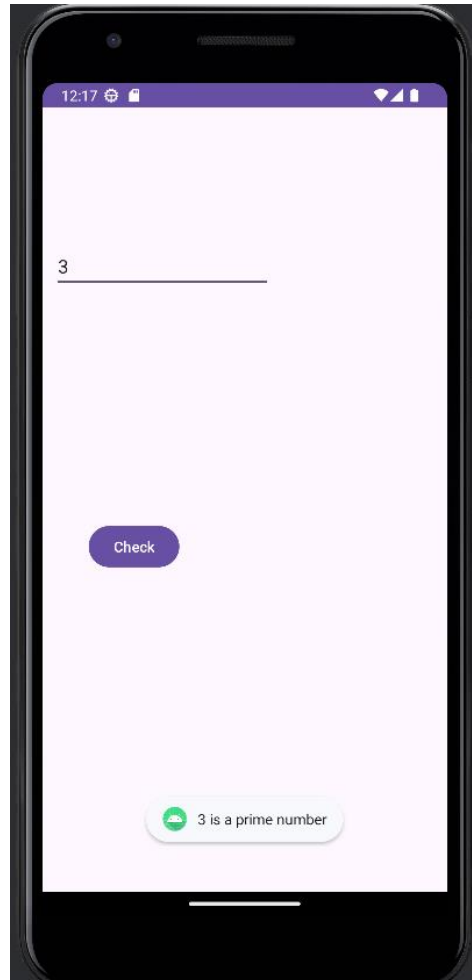
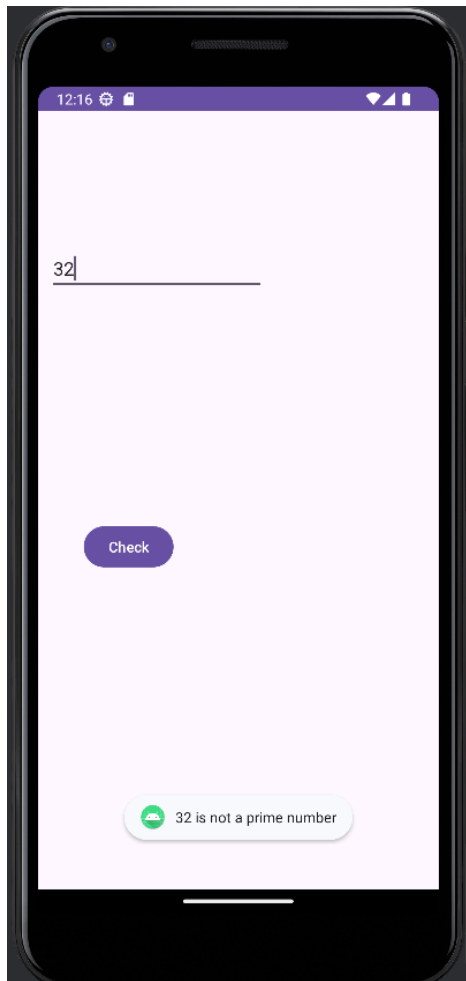
```

private boolean isPrime(int n) {
    if (n <= 1) {
        return false;
    }
}

```

```
    if (n <= 3) {  
        return true;  
    }  
    if (n % 2 == 0 || n % 3 == 0) {  
        return false;  
    }  
    for (int i = 5; i * i <= n; i += 6) {  
        if (n % i == 0 || n % (i + 2) == 0) {  
            return false;  
        }  
    }  
    return true;  
}  
  
private void showToast(String message) {  
    Toast.makeText(this, message, Toast.LENGTH_SHORT).show();  
}  
}
```

Output:



Assignment Q7

Xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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">
```

```
<Button
    android:id="@+id/color_b"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="248dp"
    android:layout_marginBottom="410dp"
    android:text="BG Color"
    tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteX="77dp"
    tools:layout_editor_absoluteY="316dp" />
```

```
<Button
    android:id="@+id/image_b"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

```
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="105dp"
        android:layout_marginBottom="414dp"
        android:text="BG Image"
        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteX="231dp"
        tools:layout_editor_absoluteY="316dp" />
</RelativeLayout>
```

MainActivity.java

```
package com.example.a22_07_2024;

import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RelativeLayout;
import android.widget.TextView;
import android.widget.Toast;

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 {
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    Button b1=(Button) findViewById(R.id.color_b);
    Button b2=(Button) findViewById(R.id.image_b);
    RelativeLayout r=(RelativeLayout) findViewById(R.id.main);

    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            r.setBackgroundColor(Color.RED);

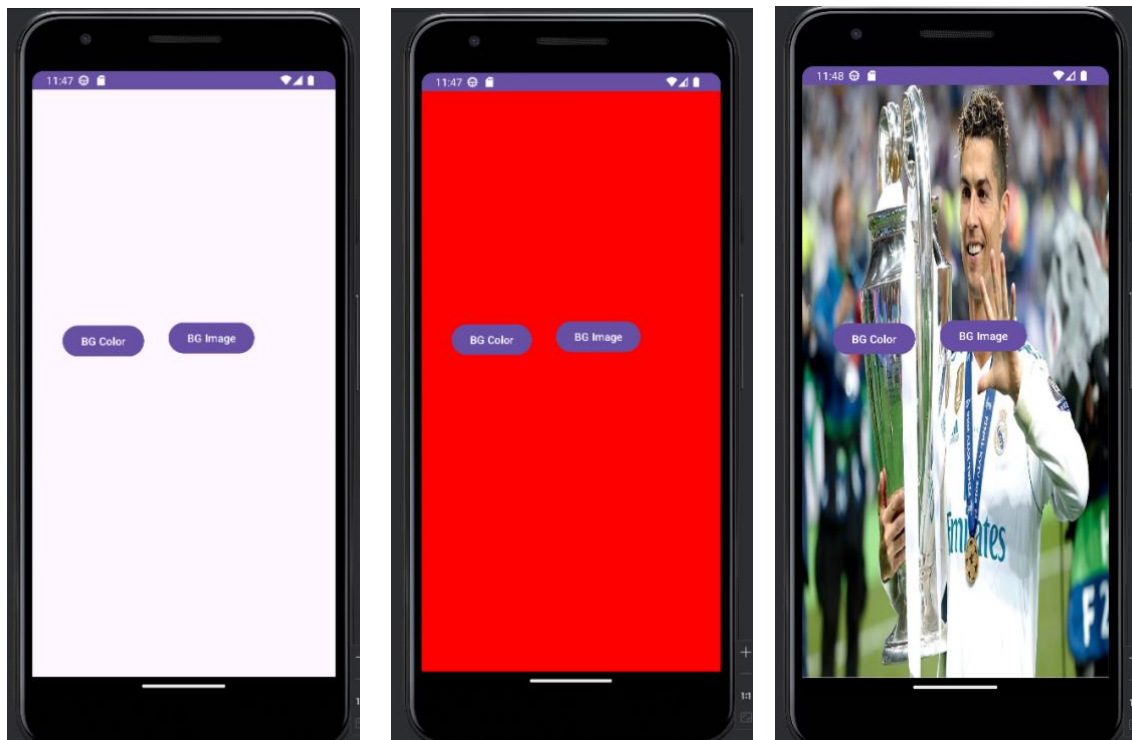
        }
    });

    b2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            r.setBackgroundResource(R.drawable.ronaldo);

        }
    });

}
}
```

Output:



Assignment Q8

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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity"
    tools:ignore="DisableBaselineAlignment">

    <fragment
        android:id="@+id/frag1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:ignore="FragmentTagUsage"
        android:name="com.example.a23_07_2024.first_fragment"
    />

    <fragment
        android:id="@+id/frag2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        tools:ignore="FragmentTagUsage"
```

```
        android:name="com.example.a23_07_2024.second_fragment"/>
```

```
</LinearLayout>
```

MainActivity.java

```
package com.example.a23_07_2024;
```

```
import android.os.Bundle;
```

```
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 {
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
    }
```

```
}
```

fragment_first_fragment.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    xmlns:tools="http://schemas.android.com/tools"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

```
tools:context=".first_fragment"
android:orientation="vertical"
android:background="#673AB7">
```

```
<!-- TODO: Update blank fragment layout -->
```

```
<TextView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:text="My first fragment"
    android:id="@+id/fragmentxml1"/>
```

```
</LinearLayout>
```

fragment_second_fragment.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    xmlns:tools="http://schemas.android.com/tools"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

```
    tools:context=".second_fragment"
```

```
    android:orientation="vertical"
```

```
    android:background="#FF5722"
```

```
>
```

```
<!-- TODO: Update blank fragment layout -->
```

```
<TextView
    android:layout_width="match_parent"
    android:layout_height="match_parent"
```

```
android:text="My second fragment"  
android:id="@+id/fragmentxml2"/>
```

```
</FrameLayout>
```



```
first_fragment.java

package com.example.a23_07_2024;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.TextView;

public class first_fragment extends Fragment {

    public first_fragment() {
        // Required empty public constructor
    }

    @Override
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
                             Bundle savedInstanceState) {
        // Inflate the layout for this fragment
        View view = inflater.inflate(R.layout.fragment_first_fragment, container, false);

        return view;
    }
}
```

}

second_fragment.java

package com.example.a23_07_2024;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class second_fragment extends Fragment {

public second_fragment() {

// Required empty public constructor

}

@Override

public View onCreateView(LayoutInflater inflater, ViewGroup container,

Bundle savedInstanceState) {

// Inflate the layout for this fragment

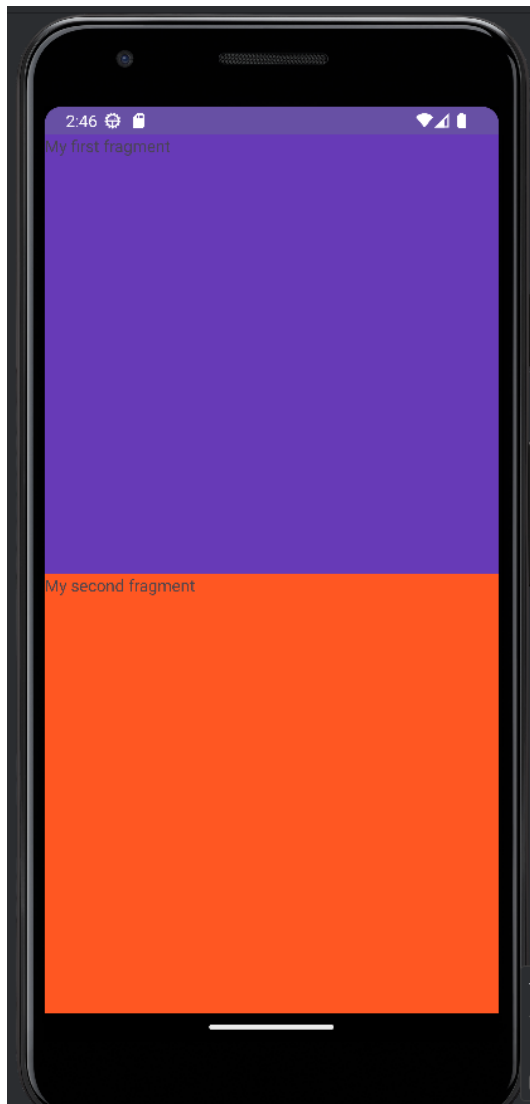
View view = inflater.inflate(R.layout.fragment_second_fragment, container, false);

return view;

}

}

Output:



Assignment Q9

MainActivity.java

```
package com.example.assignment9;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentTransaction;

public class MainActivity extends AppCompatActivity {

    Button btnA,btnB,btnC;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        btnA=findViewById(R.id.b1);
        btnB=findViewById(R.id.b2);
        btnC=findViewById(R.id.b3);
    }
}
```

```
loadfrag(new BFragment(),0);
```

```
btnA.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        loadfrag(new AFragment(),1);  
    }  
});
```

```
btnB.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        loadfrag(new BFragment(),1);  
    }  
});
```

```
btnC.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        loadfrag(new CFragment(),1);  
    }  
});
```

```
}
```

```
public void loadfrag(Fragment frag, int flag){  
    FragmentManager fm=getSupportFragmentManager();  
    FragmentTransaction ft=fm.beginTransaction();
```

```
if (flag == 0)
    ft.add(R.id.frm,frag);
else
    ft.replace(R.id.frm,frag);
ft.commit();
}
}
```

Activity_main.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:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content">

        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/b1"
            android:layout_weight="1"
            android:text="Frag1"/>

        <Button
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:id="@+id/b2"
            android:layout_weight="1"
            android:text="Frag2"/>

        <Button
```



```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/b3"
    android:layout_weight="1"
    android:text="Frag3"/>
```

```
</LinearLayout>
```

```
<FrameLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:id="@+id/frm"/>
```

```
</LinearLayout>
```

AFragment.java

```
package com.example.assignment9;
```

```
import android.os.Bundle;
```

```
import androidx.fragment.app.Fragment;
```

```
import android.view.LayoutInflater;
```

```
import android.view.View;
```

```
import android.view.ViewGroup;
```

```
public class AFragment extends Fragment {
```

```
    public AFragment() {
```

```
        // Required empty public constructor
```

```
    }
```

```
    @Override
```

```
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
```

```
        Bundle savedInstanceState) {
```

```
        // Inflate the layout for this fragment
```

```
        return inflater.inflate(R.layout.fragment_a, container, false);
```

```
    }
```

```
}
```

Fragment_a.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".AFragment"
    android:background="#9400FF88">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment" />

</LinearLayout>
```

BFragment.java

```
package com.example.assignment9;
```

```
import android.os.Bundle;
```

```
import androidx.fragment.app.Fragment;
```

```
import android.view.LayoutInflater;
```

```
import android.view.View;
```

```
import android.view.ViewGroup;
```

```
public class BFragment extends Fragment {
```

```
    public BFragment() {
```

```
        // Required empty public constructor
```

```
    }
```

```
    @Override
```

```
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
```

```
        Bundle savedInstanceState) {
```

```
        // Inflate the layout for this fragment
```

```
        return inflater.inflate(R.layout.fragment_b, container, false);
```

```
    }
```

```
}
```

Fragment_b.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".BFragment"
    android:background="#6900FF88">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment" />

</LinearLayout>
```

CFragment.java

```
package com.example.assignment9;
```

```
import android.os.Bundle;
```

```
import androidx.fragment.app.Fragment;
```

```
import android.view.LayoutInflater;
```

```
import android.view.View;
```

```
import android.view.ViewGroup;
```

```
public class CFragment extends Fragment {
```

```
    public CFragment() {
```

```
        // Required empty public constructor
```

```
    }
```

```
    @Override
```

```
    public View onCreateView(LayoutInflater inflater, ViewGroup container,
```

```
        Bundle savedInstanceState) {
```

```
        // Inflate the layout for this fragment
```

```
        return inflater.inflate(R.layout.fragment_c, container, false);
```

```
    }
```

```
}
```

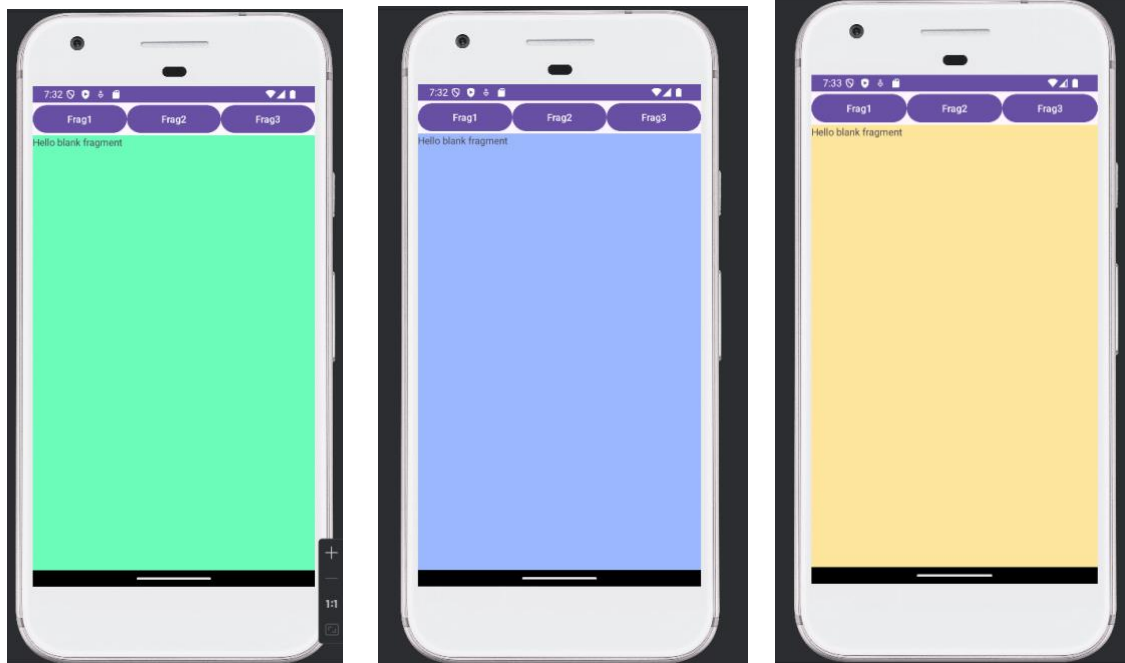
Fragment_c.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".CFragment"
    android:background="#6900FF88">

    <!-- TODO: Update blank fragment layout -->
    <TextView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="@string/hello_blank_fragment" />

</LinearLayout>
```

Output:



30_07_2024 _MAD_Lecture – Q1

Explicit intent

Username and Password using intent for page linking.

MainActivity.java

```
package com.example.a30_07_2024;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import android.widget.Toast;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    Button submit;
```

```
    EditText usern;
```

```
    EditText pass;
```

```
@Override
```

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

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

```
    submit = (Button) findViewById(R.id.b1);
```

```

usern = (EditText) findViewById(R.id.val1);
pass = (EditText) findViewById(R.id.val2);

submit.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String user1 = usern.getText().toString();
        String p = pass.getText().toString();

        if (user1.equals("SIMMC") && p.equals("123")) {
            Intent intent = new Intent(getApplicationContext(), MainActivity2.class);
            intent.putExtra("key", user1);
            startActivity(intent);
        } else {
            Toast.makeText(MainActivity.this, "Invalid username or password",
Toast.LENGTH_SHORT).show();
        }
    }
});
}
}

```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/val1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="152dp"
    android:layout_marginBottom="571dp"
    android:ems="10"
    android:inputType="text"
    android:hint="Enter your Username" />
```

```
<EditText
    android:id="@+id/val2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="155dp"
```

```
android:layout_marginBottom="480dp"
android:ems="10"
android:hint="Enter your Password"
android:inputType="textPassword" />
```

```
<Button
```

```
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="268dp"
    android:layout_marginBottom="357dp"
    android:text="Submit" />
```

```
</RelativeLayout>
```

MainActivity2.java

```
package com.example.a30_07_2024;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
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 MainActivity2 extends AppCompatActivity {
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main2);
```

```
        Intent i = getIntent();
```

```
        String s = i.getStringExtra("key");
```

```
        TextView tv = (TextView) findViewById(R.id.tv);
```

```
        tv.setText("Welcome " + s + " !!!!!");
```

```
    }
```

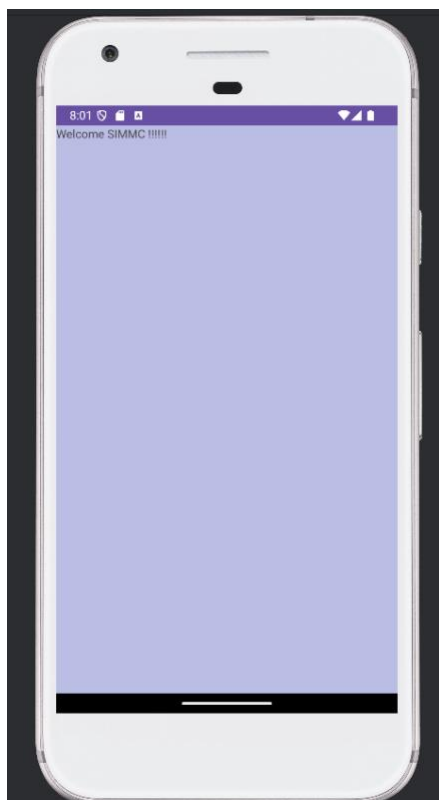
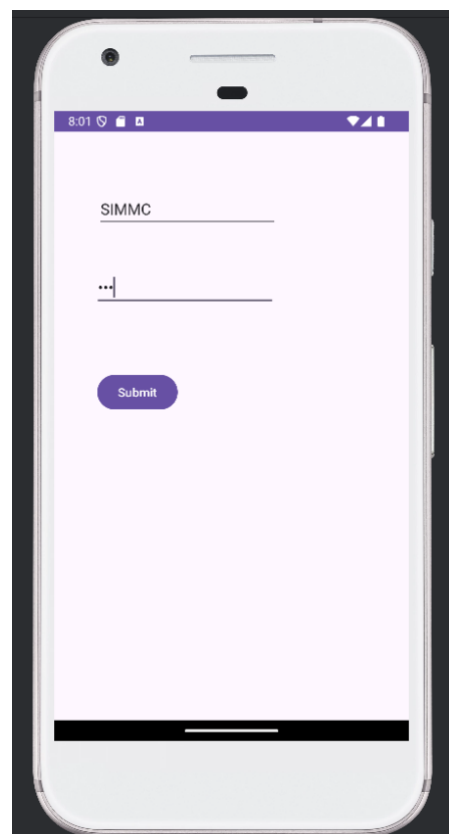
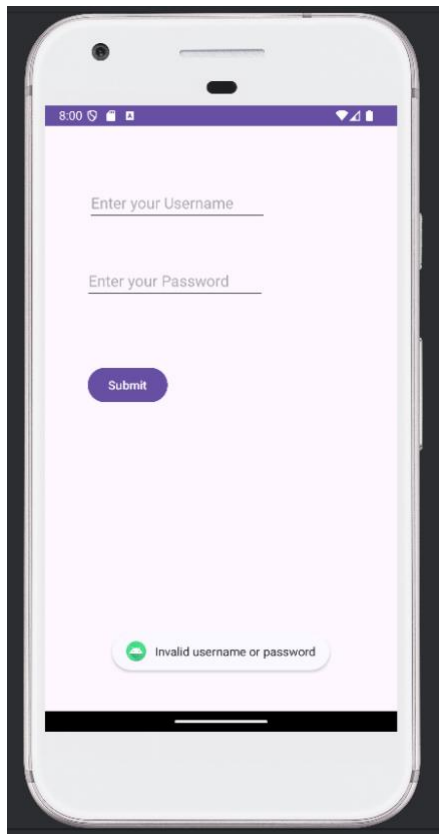
```
}
```

Activity_main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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=".MainActivity2"
    android:background="#756E7BC5">

    <TextView
        android:id="@+id/tv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="" />
</RelativeLayout>
```

Output:



02_08_2024 _MAD_Lecture – Q2

Implicit intent

MainActivity.java

```
package com.example.a02_08_2024;
```

```
import android.content.Intent;
```

```
import android.net.Uri;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.EditText;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText ed;
```

```
    Button b1;
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        ed =(EditText) findViewById(R.id.ed);
```

```
        b1 =(Button) findViewById(R.id.b1);
```



```
b1.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View v) {  
        String url = ed.getText().toString();  
        Intent intent = new Intent(Intent.ACTION_VIEW,Uri.parse(url));  
        startActivity(intent);  
    }  
});  
}  
}
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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/ed"
    android:layout_width="409dp"
    android:layout_height="75dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="0dp"
    android:layout_marginBottom="632dp"
    android:ems="10"
    android:inputType="text"
    android:hint="URL"
    android:textAlignment="center" />
```

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

```
android:layout_alignParentBottom="true"
```

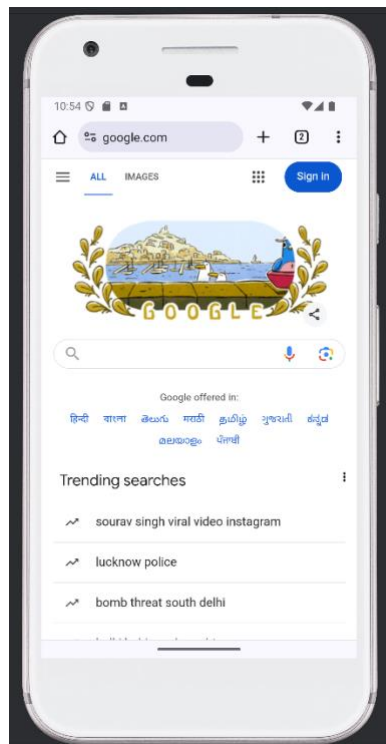
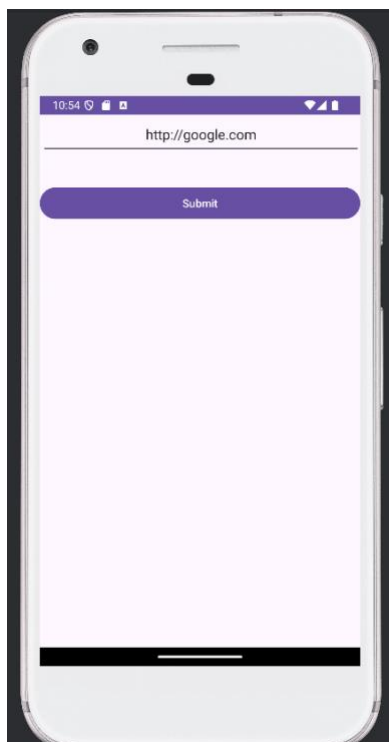
```
android:layout_marginEnd="0dp"
```

```
android:layout_marginBottom="546dp"
```

```
android:text="Submit" />
```

```
</RelativeLayout>
```

Output:



02_08_2024 _MAD_Lecture -Q3

Android manifest file user permission and upload image

MainActivity.java

```
package com.example.a02_08_2024;
```

```
import android.content.Intent;
```

```
import android.net.Uri;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.ImageView;
```

```
import androidx.annotation.Nullable;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    ImageView im;
```

```
    Button b;
```

```
    int SELECT_PICTURE = 1000;
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        im = findViewById(R.id.imageView);
```

```

b = findViewById(R.id.b1);

b.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        Intent intent = new Intent();
        intent.setType("image/*");
        intent.setAction(Intent.ACTION_GET_CONTENT);
        startActivityForResult(Intent.createChooser(intent, "SELECT PICTURE"),
SELECT_PICTURE);
    }
});
}

@Override
protected void onActivityResult(int requestCode, int resultCode, @Nullable Intent
data) {
    super.onActivityResult(requestCode, resultCode, data);
    if (resultCode == RESULT_OK && requestCode == SELECT_PICTURE) {
        // Get the Uri of the selected image
        Uri selectedImageUri = data.getData();
        if (selectedImageUri != null) {
            im.setImageURI(selectedImageUri);
        }
    }
}
}

```

Activity_main.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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity"
    android:orientation="vertical">

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

        <Button
            android:id="@+id/b1"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="Button" />

        </LinearLayout>

        <ImageView
            android:layout_width="match_parent"
            android:layout_height="300dp"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="50dp"
            android:scaleType="centerCrop"
            android:id="@+id/imageView"/>

    </LinearLayout>
```

AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8"?>

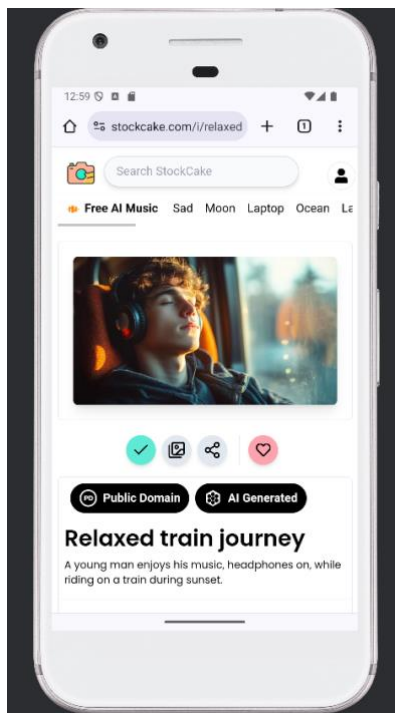
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <uses-permission
android:name="android.permission.READ_EXTERNAL_STORAGE"/>

    <uses-permission
android:name="android.permission.WRITE_EXTERNAL_STORAGE"/>


    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.02_08_2024"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

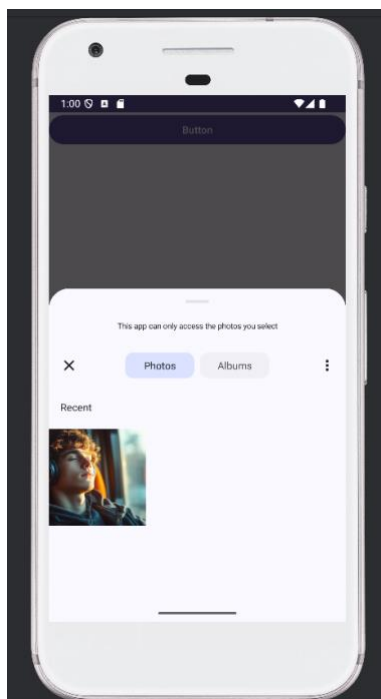
Output:



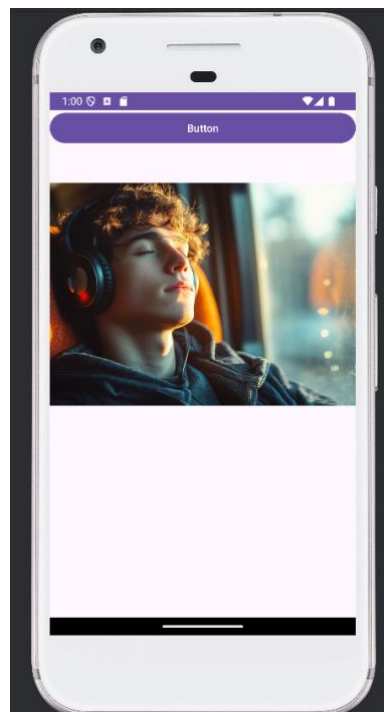
Download Image from google



Click on Button



Select Image from downloads



05_08_2024_MAD_Lecture – Q4

Listview using ArrayAdapter

A. Simple List Item

MainActivity.java

```
package com.example.a05_08_204;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;

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 {
    ListView lv;
    String[] subjects = {"CC","DWDM","MAD","STQA","KRAI"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        lv=(ListView) findViewById(R.id.listview);
```

```
        ArrayAdapter<String> adapter=new  
ArrayAdapter<String>(getApplicationContext(),  
android.R.layout.simple_list_item_1,subjects);  
  
        lv.setAdapter(adapter);  
  
        lv.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
  
            @Override  
  
            public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {  
  
                String s = adapter.getItem(i);  
  
                Toast.makeText(getApplicationContext(),s,Toast.LENGTH_SHORT).show();  
  
            }  
  
        });  
    }  
}
```

Activity_main.xml

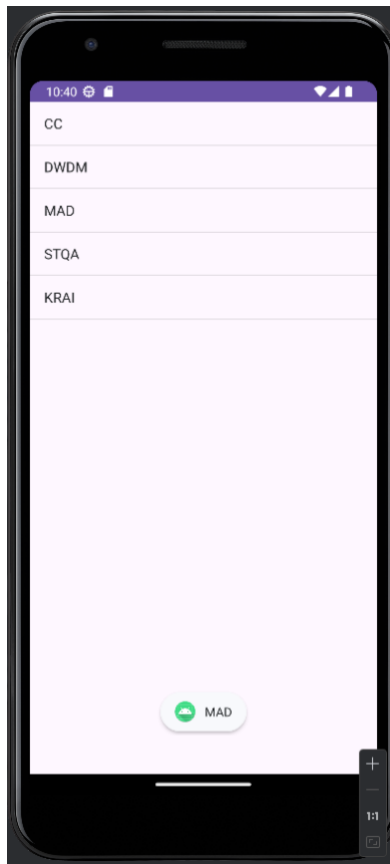
```
<?xml version="1.0" encoding="utf-8"?>

<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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ListView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/listview"
    />

</LinearLayout>
```

Output:



B. Simple List item with multiple choice

MainActivity.xml

```
package com.example.a05_08_204;

import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ListView;
import android.widget.Toast;

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 {
    ListView lv;

    String[] subjects = {"CC","DWDM","MAD","STQA","KRAI"};

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        lv=(ListView) findViewById(R.id.listview);
    }
}
```

```
        ArrayAdapter<String> adapter=new  
ArrayAdapter<String>(getApplicationContext(),  
android.R.layout.simple_list_item_multiple_choice,subjects);  
  
        lv.setAdapter(adapter);  
  
        lv.setChoiceMode(lv.CHOICE_MODE_MULTIPLE);  
  
        lv.setOnItemClickListener(new AdapterView.OnItemClickListener() {  
  
            @Override  
  
            public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {  
  
                String s = adapter.getItem(i);  
  
                Toast.makeText(getApplicationContext(),s,Toast.LENGTH_SHORT).show();  
  
  
            }  
  
        });  
    }  
}
```

Activity_main.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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity"
    >

    <ListView
        android:id="@+id/listview"
        android:layout_width="match_parent"
        android:layout_height="692dp"
        />

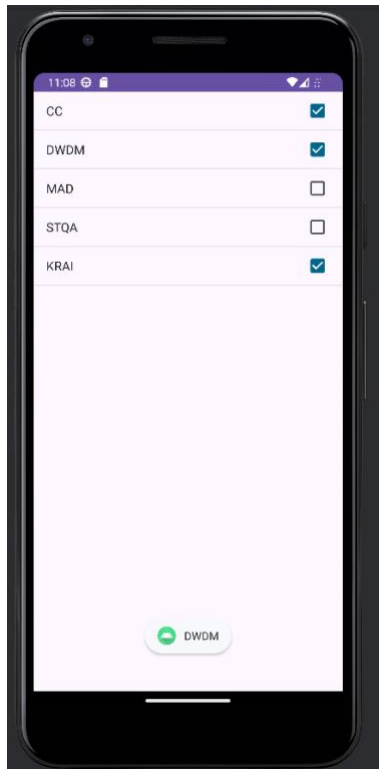
    <LinearLayout
        android:layout_width = "wrap_content"
        android:layout_height="wrap_content">

    </LinearLayout>

    <Button
        android:id="@+id/b1"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="Display" />
```

</LinearLayout>

Output:



C . To Display multiple choice list using toast

MainActivity.xml

```
package com.example.a05_08_204;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.AdapterView;
```

```
import android.widget.ArrayAdapter;
```

```
import android.widget.Button;
```

```
import android.widget.ListView;
```

```
import android.widget.Toast;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    ListView lv;
```

```
    Button btn;
```

```
    String[] subjects = {"CC","DWDM","MAD","STQA","KRAI"};
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        lv = findViewById(R.id.listview);
```

```
        btn = findViewById(R.id.b1);
```

```
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,  
        android.R.layout.simple_list_item_multiple_choice, subjects);
```

```

lv.setAdapter(adapter);
lv.setChoiceMode(ListView.CHOICE_MODE_MULTIPLE);

btn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        int count = lv.getCount();
        StringBuilder selectedItems = new StringBuilder();
        for (int i = 0; i < count; i++) {
            if (lv.isItemChecked(i)) {
                selectedItems.append(adapter.getItem(i)).append(", ");
            }
        }
        if (selectedItems.length() > 0) {
            selectedItems.setLength(selectedItems.length() - 2);
        }
        Toast.makeText(getApplicationContext(), "Selected: " + selectedItems.toString(),
Toast.LENGTH_SHORT).show();
    }
});
}
}

```

Activity_main.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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity"
    >

    <ListView
        android:id="@+id/listview"
        android:layout_width="match_parent"
        android:layout_height="692dp"
        />

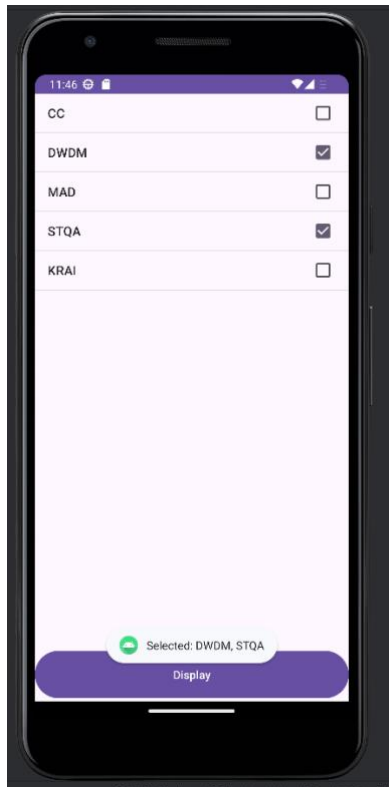
    <LinearLayout
        android:layout_width = "wrap_content"
        android:layout_height="wrap_content">

    </LinearLayout>

    <Button
        android:id="@+id/b1"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:text="Display" />
```

</LinearLayout>

Output:



06_08_2024_MAD_LECTURE - Q5

Dropdown List using spinner

MainActivity.java

```
package com.example.a06_08_2024;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.AdapterView;
```

```
import android.widget.ArrayAdapter;
```

```
import android.widget.Spinner;
```

```
import android.widget.Toast;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    private Spinner spinner;
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        spinner = findViewById(R.id.spinner);
```

```
        String[] items = {"CC", "DWDM", "STQA", "MAD", "KRAI"};
```

```
        ArrayAdapter<String> adapter = new ArrayAdapter<>(this,  
        android.R.layout.simple_spinner_item, items);
```

```
        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
```

```
        spinner.setAdapter(adapter);
```

```
        spinner.setOnItemClickListener(new AdapterView.OnItemClickListener() {
```

```
            @Override
```

```
            public void onItemClick(AdapterView<?> parent, View view, int position, long  
id) {
```

```
                String selectedItem = parent.getItemAtPosition(position).toString();
```

```
        Toast.makeText(MainActivity.this, "Selected item: " + selectedItem,
Toast.LENGTH_SHORT).show();
    }

    @Override
    public void onNothingSelected(AdapterView<?> parent) {
    }
    });
}
}
```

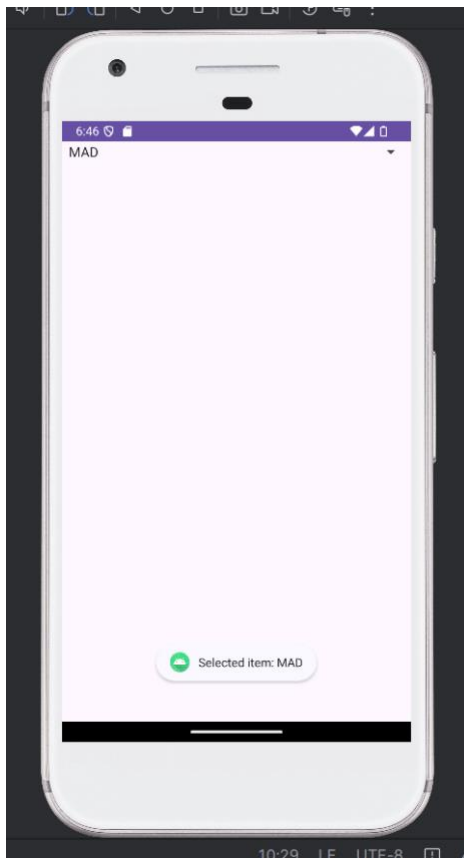
activity_main.xml

```
<?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"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <Spinner
        android:id="@+id/spinner"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />

</LinearLayout>
```

Output:



09_08_2024_MAD_LECTURE – Q6

Gridview using customadapter

MainActivity.java

```
package com.example.a09_08_2024;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.text.method.HideReturnsTransformationMethod;
```

```
import android.text.method.PasswordTransformationMethod;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.CheckBox;
```

```
import android.widget.EditText;
```

```
import android.widget.Toast;
```

```
import androidx.activity.EdgeToEdge;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    Button submit;
```

```
    EditText user, pass;
```

```
    private CheckBox showpass;
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        EdgeToEdge.enable(this);
```

```
        setContentView(R.layout.activity_main);
```

```

submit = (Button) findViewById(R.id.loginButton);
user = (EditText) findViewById(R.id.username);
pass = (EditText) findViewById(R.id.password);
showpass = findViewById(R.id.showPassword);

showpass.setOnCheckedChangeListener((buttonView, isChecked) -> {
    if (isChecked) {
        // Show Password

pass.setTransformationMethod(HideReturnsTransformationMethod.getInstance());
    } else {
        // Hide Password

pass.setTransformationMethod(PasswordTransformationMethod.getInstance());
    }
});

submit.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String username = user.getText().toString();
        String password = pass.getText().toString();
        if (username.equals("SIMMC") && password.equals("12345")) {
            Intent intent = new Intent(MainActivity.this, MainActivity2.class);
            startActivity(intent);
            finish();
        } else {
            Toast.makeText(MainActivity.this, "Invalid username and password",
Toast.LENGTH_SHORT).show();
        }
    }
}

```

```
    }  
    });  
  }  
}
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="vertical"
        android:gravity="center_horizontal">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Login Form"
            android:layout_marginTop="80dp"
            android:textSize="24sp"
            android:layout_gravity="center_horizontal"/>

        <EditText
            android:id="@+id/username"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="16dp"
```

```
android:layout_marginTop="50dp"  
android:hint="Username"  
android:inputType="text" />
```

```
<EditText  
    android:id="@+id/password"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:hint="Password"  
    android:layout_margin="16dp"  
    android:inputType="textPassword" />
```

```
<CheckBox  
    android:id="@+id/showPassword"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:text="Show Password"  
    android:layout_gravity="center" />
```

```
<Button  
    android:id="@+id/loginButton"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:layout_margin="16dp"  
    android:text="Login" />
```

```
</LinearLayout>
```

```
</RelativeLayout>
```

MainActivity2.java

```
package com.example.a09_08_2024;
```

```
import android.annotation.SuppressLint;
```

```
import android.content.Intent;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.RadioButton;
```

```
import android.widget.RadioGroup;
```

```
import android.widget.TextView;
```

```
import android.widget.Toast;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity2 extends AppCompatActivity {
```

```
    private TextView questionText;
```

```
    private RadioGroup answersGroup;
```

```
    private Button nextButton;
```

```
    private String[] questions = {
```

```
        "What is the capital of France?",
```

```
        "Who is the creator of Android?",
```

```
        "What is the largest planet in our solar system?",
```

```
        "Which language is used for Android development?",
```

```
        "Display anything in java?"
```

```
    };
```

```
private String[][] answers = {  
    {"Berlin", "Madrid", "Paris", "Lisbon"},  
    {"Steve Jobs", "Andy Rubin", "Mark Zuckerberg", "Bill Gates"},  
    {"Earth", "Mars", "Jupiter", "Saturn"},  
    {"Java", "Python", "C#", "Ruby"},  
    {"printf", "println", "print", "display"}  
};
```

```
private int[] correctAnswers = {2, 1, 2, 0, 2};
```

```
private int currentQuestionIndex = 0;
```

```
private int score = 0;
```

```
@SuppressWarnings("MissingInflatedId")
```

```
@Override
```

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

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main2);
```

```
    questionText = findViewById(R.id.question);
```

```
    answersGroup = findViewById(R.id.answersGroup);
```

```
    nextButton = findViewById(R.id.nextButton);
```

```
    loadQuestion();
```

```
    nextButton.setOnClickListener(new View.OnClickListener() {
```

```
        @Override
```

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

```
            int selectedId = answersGroup.getCheckedRadioButtonId();
```

```

        if (selectedId == -1) {
            Toast.makeText(MainActivity2.this, "Please select an answer",
Toast.LENGTH_SHORT).show();
        } else {
            RadioButton selectedRadioButton = findViewById(selectedId);
            int answerIndex = answersGroup.indexOfChild(selectedRadioButton);
            if (answerIndex == correctAnswers[currentQuestionIndex]) {
                score++;
            }

            currentQuestionIndex++;
            if (currentQuestionIndex < questions.length) {
                loadQuestion();
            } else {
                Intent intent = new Intent(MainActivity2.this, MainActivity3.class);
                intent.putExtra("SCORE", score);
                startActivity(intent);
                finish();
            }
        }
    }
});
}

```

```

private void loadQuestion() {
    questionText.setText(questions[currentQuestionIndex]);
    answersGroup.clearCheck();
    for (int i = 0; i < answersGroup.getChildCount(); i++) {

```



```
        ((RadioButton)
answersGroup.getChildAt(i)).setText(answers[currentQuestionIndex][i]);
    }
}
}
```

activity_main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

```
    android:orientation="vertical"
```

```
    android:padding="16dp">
```

```
    <TextView
```

```
        android:id="@+id/question"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:text="Question will appear here"
```

```
        android:textSize="18sp"
```

```
        android:layout_marginBottom="16dp" />
```

```
    <RadioGroup
```

```
        android:id="@+id/answersGroup"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:orientation="vertical">
```

```
        <RadioButton
```

```
            android:id="@+id/answer1"
```

```
            android:layout_width="wrap_content"
```

```
            android:layout_height="wrap_content"
```

```
            android:text="Answer 1" />
```

```
        <RadioButton
```

```
            android:id="@+id/answer2"
```

```
            android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
    android:text="Answer 2" />
```

```
<RadioButton
```

```
    android:id="@+id/answer3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Answer 3" />
```

```
<RadioButton
```

```
    android:id="@+id/answer4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Answer 4" />
```

```
</RadioGroup>
```

```
<Button
```

```
    android:id="@+id/nextButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Next"
    android:layout_marginTop="16dp" />
```

```
</LinearLayout>
```

MainActivity3.java

```
package com.example.a09_08_2024;
```

```
import android.annotation.SuppressLint;
```

```
import android.os.Bundle;
```

```
import android.content.Intent;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.TextView;
```

```
import androidx.activity.EdgeToEdge;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity3 extends AppCompatActivity {
```

```
    private TextView resultText;
```

```
    private Button restartButton;
```

```
    @SuppressWarnings("MissingInflatedId")
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        EdgeToEdge.enable(this);
```

```
        setContentView(R.layout.activity_main3);
```

```
        resultText = findViewById(R.id.result);
```

```
        restartButton = findViewById(R.id.restartButton);
```

```
        int score = getIntent().getIntExtra("SCORE", 0);
```

```
        resultText.setText("Your score is: " + score);
```

```
        restartButton.setOnClickListener(new View.OnClickListener() {
```

```
@Override  
public void onClick(View v) {  
    Intent intent = new Intent(MainActivity3.this, MainActivity2.class);  
    startActivity(intent);  
    finish();  
}  
});  
}  
}
```

activity_main3.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

```
    android:orientation="vertical"
```

```
    android:padding="16dp">
```

```
    <TextView
```

```
        android:id="@+id/result"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:text="Your score is:"
```

```
        android:textSize="28sp"
```

```
        android:layout_marginTop="50dp"
```

```
        android:layout_marginBottom="16dp" />
```

```
    <Button
```

```
        android:id="@+id/restartButton"
```

```
        android:layout_width="wrap_content"
```

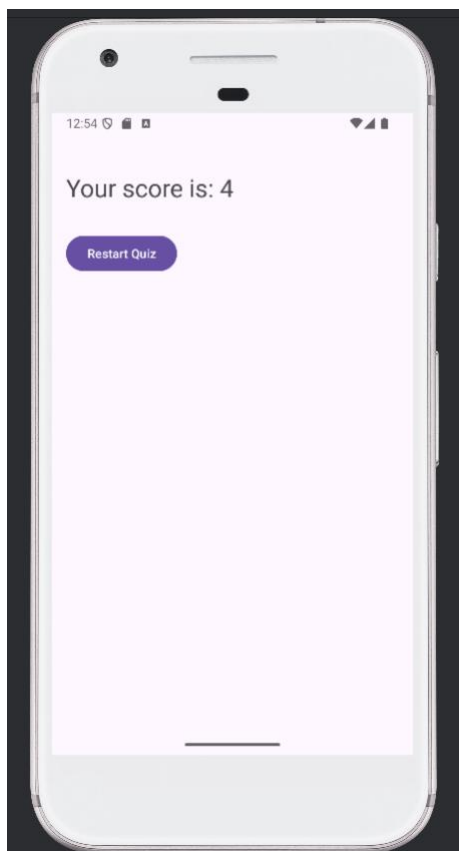
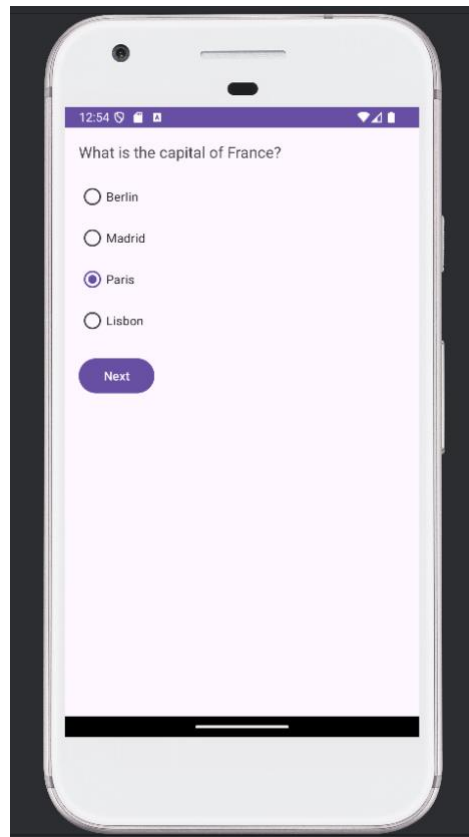
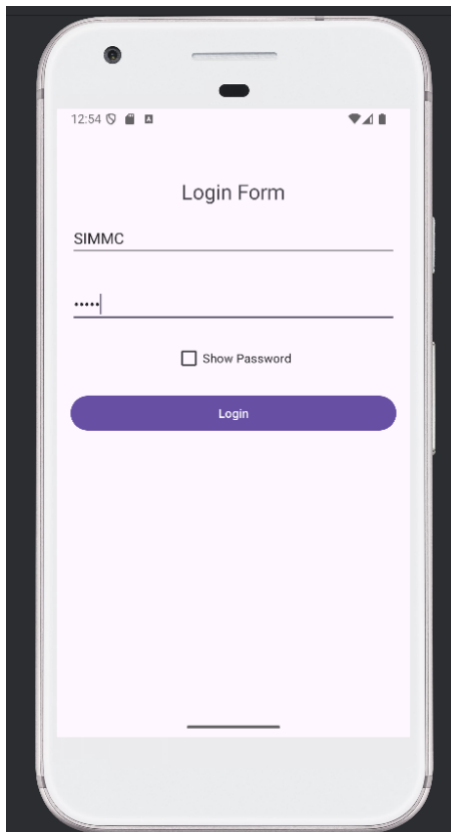
```
        android:layout_height="wrap_content"
```

```
        android:text="Restart Quiz"
```

```
        android:layout_marginTop="16dp" />
```

```
</LinearLayout>
```

Output:



12_08_2024_MAD_LECTURE – Q7

Gridview using customadapter

MainActivity.java

```
package com.example.a12_08_2024;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.AdapterView;
```

```
import android.widget.GridView;
```

```
import android.widget.Toast;
```

```
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 {
```

```
    int food[]={R.drawable.apple,R.drawable.banana,R.drawable.orange,  
                R.drawable.carrot,R.drawable.eggplant,R.drawable.tomato,  
                R.drawable.mango,R.drawable.chickoo,R.drawable.watermelon  
    };
```

```
    String[] names = {"Apple","Banana","Orange",  
                    "Carrot","Eggplant","Tomato",  
                    "Mango","Chickoo","Watermelon"  
    };
```



```
GridView gridView;
```

```
@Override
```

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

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

```
    gridView = (android.widget.GridView) findViewById(R.id.gridview);
```

```
    CustomAdapter customAdapter = new  
CustomAdapter(getApplicationContext(),food);
```

```
    gridView.setAdapter(customAdapter);
```

```
    gridView.setOnItemClickListener(new AdapterView.OnItemClickListener() {
```

```
        @Override
```

```
        public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
```

```
            Toast.makeText(MainActivity.this,"You choose " +  
names[i],Toast.LENGTH_LONG).show();
```

```
        }
```

```
    });
```

```
}
```

```
}
```

activity_main.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/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <GridView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/gridview"
        android:numColumns="3"
        />
</LinearLayout>
```

CustomAdapter.java

```
package com.example.a12_08_2024;
```

```
import android.content.Context;
```

```
import android.view.LayoutInflater;
```

```
import android.view.View;
```

```
import android.view.ViewGroup;
```

```
import android.widget.BaseAdapter;
```

```
import android.widget.ImageView;
```

```
public class CustomAdapter extends BaseAdapter {
```

```
    Context context;
```

```
    int images[];
```

```
    LayoutInflater inflater;
```

```
    public CustomAdapter(Context applicationContext, int[] images){
```

```
        this.context=applicationContext;
```

```
        this.images=images;
```

```
        inflater = (LayoutInflater.from(applicationContext));
```

```
    }
```

```
    @Override
```

```
    public int getCount() {
```

```
        return images.length;
```

```
    }
```

@Override

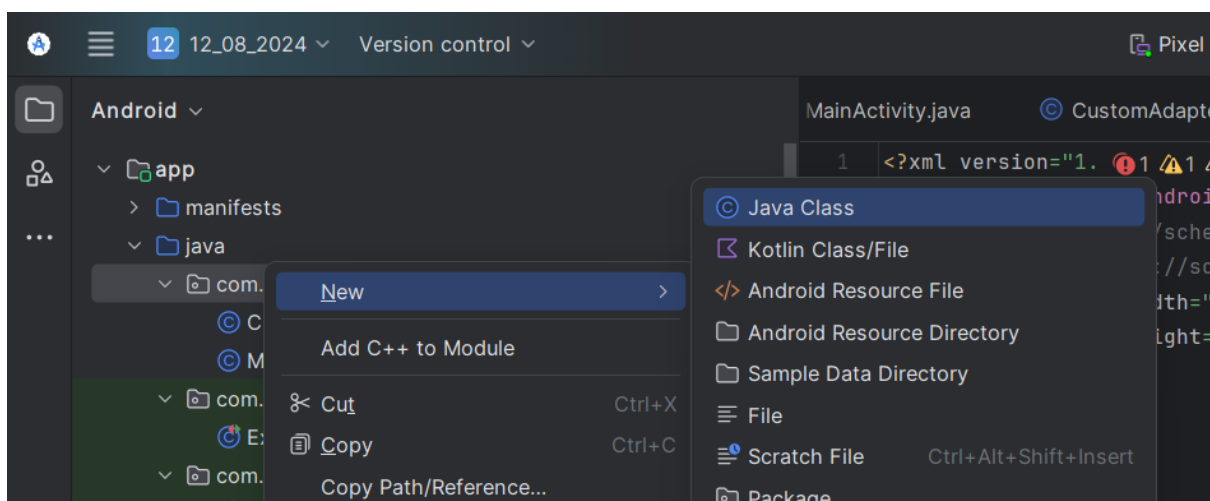
```
public Object getItem(int i) {  
    return null;  
}
```

@Override

```
public long getItemId(int i) {  
    return 0;  
}
```

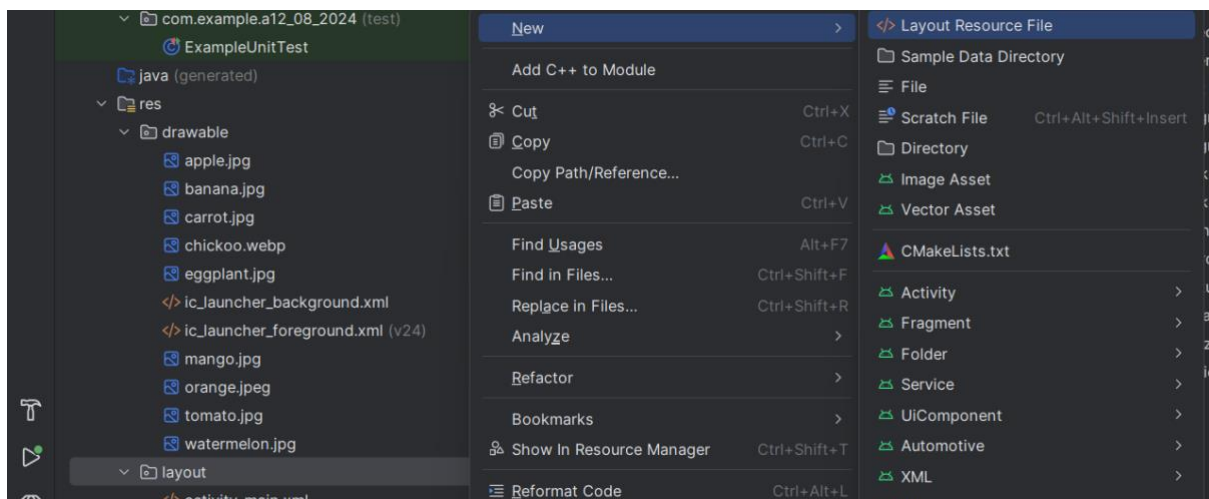
@Override

```
public View getView(int i, View view, ViewGroup viewGroup) {  
    view = inflater.inflate(R.layout.images,null);  
    ImageView imageView = (ImageView) view.findViewById(R.id.imageView);  
    imageView.setImageResource(images[i]);  
    return view;  
}  
}
```

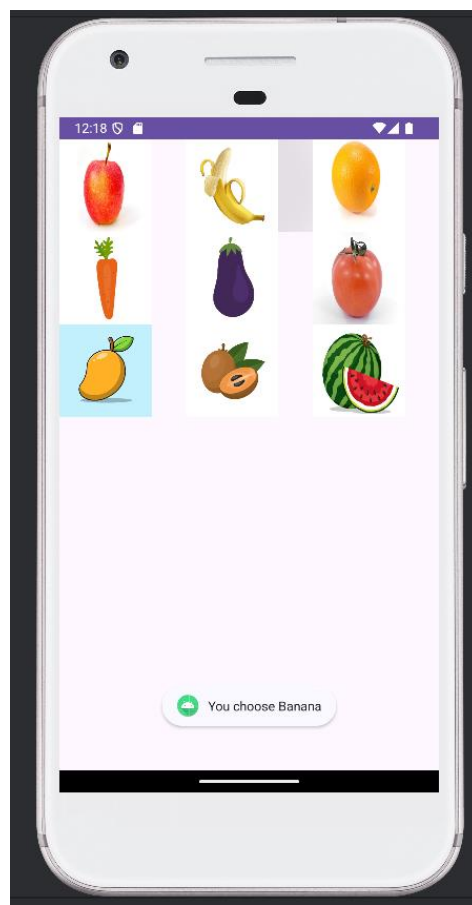
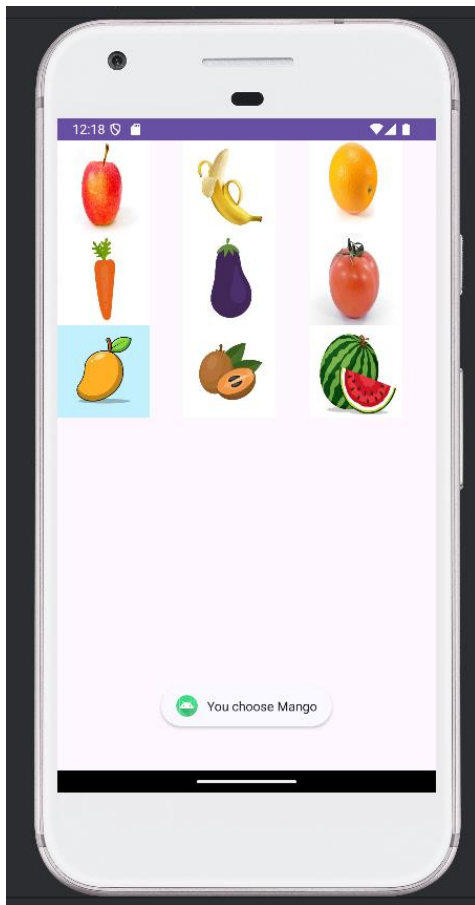


images.xml

```
<?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:layout_width="match_parent"
    android:layout_height="match_parent"
    >
    <ImageView
        android:id="@+id/imageView"
        android:layout_gravity="center_horizontal"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:scaleType="fitXY"/>
    />
</LinearLayout>
```



Output:



13_08_2024_MAD_Lecture – Q8

MainActivity.java

```
package com.example.a13_08_2024_dialog;
```

```
import android.content.DialogInterface;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
import android.widget.Toast;
```

```
import androidx.activity.EdgeToEdge;
```

```
import androidx.appcompat.app.AlertDialog;
```

```
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 {
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```
        Button alert=(Button) findViewById(R.id.b1);
```

```
        alert.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

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

```
                AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);
```

```
                builder.setMessage("DO You Want To Close This Application ?")
```

```
        .setCancelable(true)
        .setPositiveButton("yes", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialogInterface, int i) {
                finish();
                Toast.makeText(getApplicationContext(),"You choose yes action for
alertbox", Toast.LENGTH_SHORT).show();
            }
        })
    })
```

```
        .setNegativeButton("No", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int i) {
                dialog.cancel();
                Toast.makeText(getApplicationContext(),"You choose No action for
alertbox", Toast.LENGTH_SHORT).show();
            }
        })
    })
```

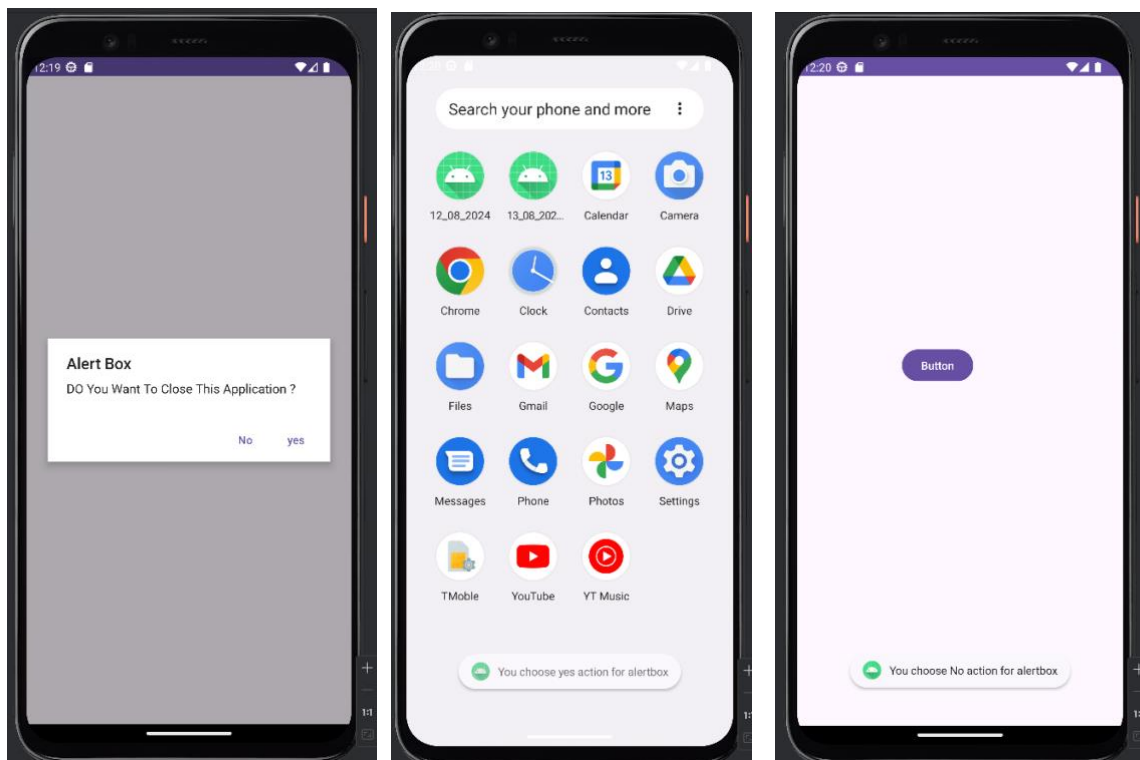
```
        .setTitle("Alert Box").show();
    }
});
}
}
```


activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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">

    <Button
        android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="189dp"
        android:layout_marginBottom="431dp"
        android:text="Button" />
</RelativeLayout>
```

Output:



16_08_2024_MAD_Lecture – Q9

MainActivity.java

```
package com.example.a16_08_2024;
```

```
import android.content.DialogInterface; import android.os.Bundle;
```

```
import android.view.View; import android.widget.Button;
```

```
import android.widget.Toast;
```

```
import androidx.activity.EdgeToEdge;
```

```
import androidx.appcompat.app.AlertDialog;
```

```
import androidx.appcompat.app.AppCompatActivity; import  
androidx.core.graphics.Insets;
```

```
import androidx.core.view.ViewCompat;
```

```
import androidx.core.view.WindowInsetsCompat;
```

```
import java.util.ArrayList;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    Button btn,btn2;
```

```
    String toppings[] = {"Cheese","Paneer","Mushroom","Capsicum","Onion","Corn"};  
    ArrayList<Integer> arlist = new ArrayList<>();
```

```
    String msg="";
```

```
boolean [] Vb = new boolean[toppings.length]; int ai=0;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {  
super.onCreate(savedInstanceState); EdgeToEdge.enable(this);  
setContentView(R.layout.activity_main);
```

```
    btn = (Button) findViewById(R.id.btn1); btn2 = (Button) findViewById(R.id.btn2);
```

```
    btn.setOnClickListener(new View.OnClickListener() { @Override
```

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

```
            AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);  
builder.setTitle("Choice Toppings.");
```

```
            builder.setMultiChoiceItems(toppings,Vb, new  
DialogInterface.OnMultiChoiceClickListener() {
```

```
                @Override
```

```
                    public void onClick(DialogInterface dialog, int i, boolean isChecked) { if  
(isChecked){
```

```
                        arlist.add(i);
```

```
                    } else if (arlist.contains(i)) { arlist.remove(Integer.valueOf(i));
```

```
                    }
```

```
                }
```

```
            })
```

```
            .setPositiveButton("Yes", new DialogInterface.OnClickListener() { @Override
```

```
                public void onClick(DialogInterface dialog, int which) { for (int a=0;  
a<arlist.size(); a++){
```

```
                    msg = msg+"\n+": "+toppings[arlist.get(a)];
```

```
                }
```

```
                Toast.makeText(getApplicationContext(),"Total Toppings  
Selected:"+arlist.size(),Toast.LENGTH_LONG).show();
```

```

    }

    })

    .setNegativeButton("No", new DialogInterface.OnClickListener() { @Override
        public void onClick(DialogInterface dialog, int which) { dialog.dismiss();

            Toast.makeText(getApplicationContext(),"No Toppings
Selected",Toast.LENGTH_LONG).show();

        }

    });

    AlertDialog ad= builder.create(); ad.show();
}

});

btn2.setOnClickListener(new View.OnClickListener() { @Override
    public void onClick(View v) {

        AlertDialog.Builder builder2 = new AlertDialog.Builder(MainActivity.this);
        builder2.setTitle("Single")

            .setSingleChoiceItems(toppings, 0, new DialogInterface.OnClickListener() {
                @Override
                public void onClick(DialogInterface dialog, int which) { ai=which;
                }

            })

            .setPositiveButton("Yes", new DialogInterface.OnClickListener() { @Override
                public void onClick(DialogInterface dialog, int which) {

                    Toast.makeText(MainActivity.this, "Selected item"+toppings[ai],
Toast.LENGTH_SHORT).show();

                }

            })

```

```
        .setNegativeButton("No", new DialogInterface.OnClickListener() { @Override
            public void onClick(DialogInterface dialog, int which) {
Toast.makeText(getApplicationContext(),"Sorry",Toast.LENGTH_LONG).show();
            }
        });
        AlertDialog ad= builder2.create(); ad.show();
```

```
    }
```

```
    });
```

```
}
```

```
}
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<RelativeLayout 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"
```

```
    android:orientation="vertical">
```

```
<Button
```

```
    android:id="@+id/btn1"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_alignParentTop="true"
```

```
    android:layout_alignParentEnd="true"
```

```
    android:layout_marginTop="206dp"
```

```
    android:layout_marginEnd="1dp"
```

```
    android:text="Select Toppings"
```

```
    tools:layout_editor_absoluteX="144dp"
```

```
    tools:layout_editor_absoluteY="58dp" />
```

```
<Button
```

```
    android:id="@+id/btn2"
```

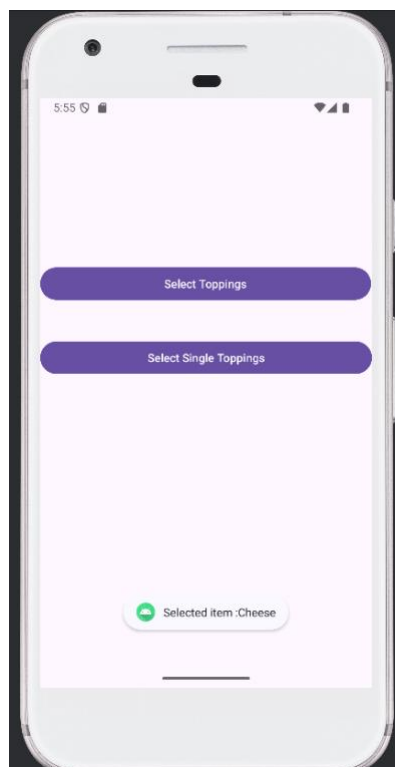
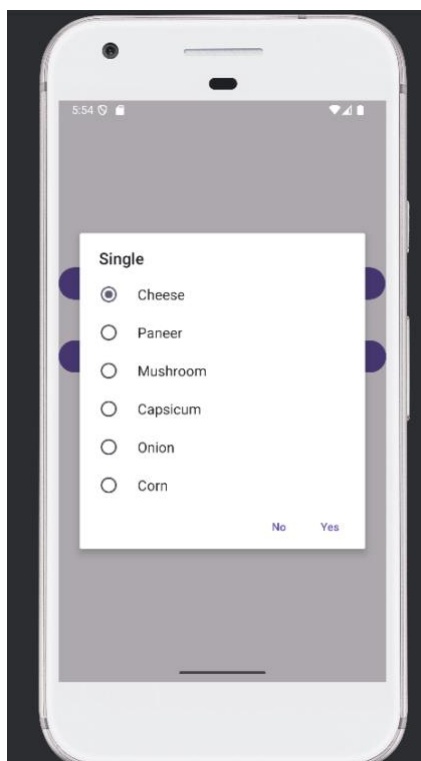
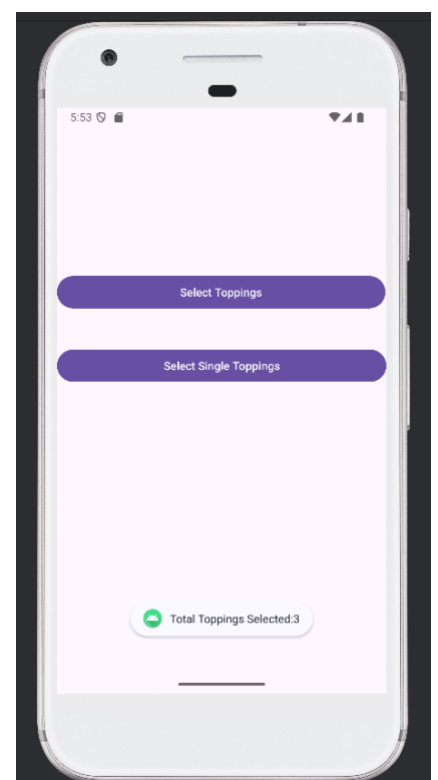
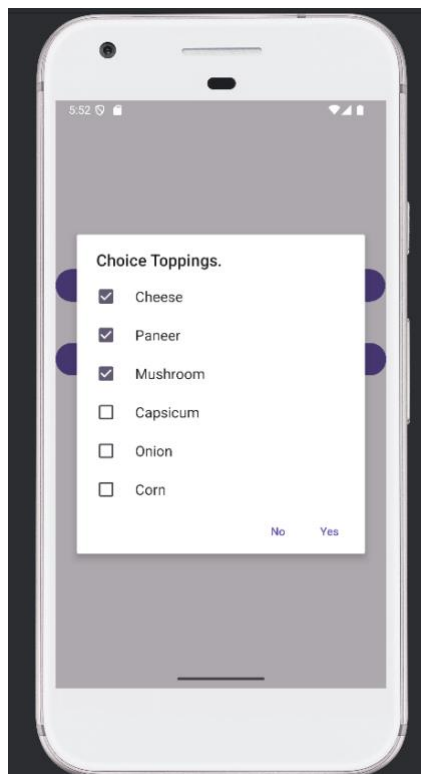
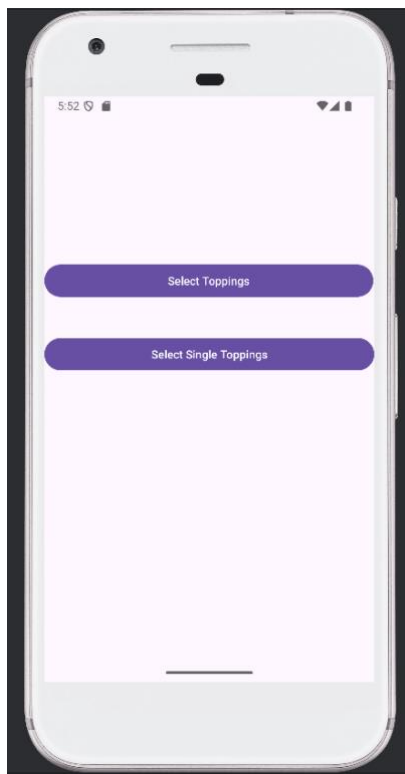
```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_alignParentTop="true"
```

```
        android:layout_alignParentEnd="true"
        android:layout_marginTop="298dp"
        android:layout_marginEnd="0dp"
        android:text="Select Single Toppings"
        tools:layout_editor_absoluteX="144dp"
        tools:layout_editor_absoluteY="58dp" />
</RelativeLayout>
```


Output:



20_08_2024_MAD_Lecture – Q10

Date Picker using toast

MainActivity.java

```
package com.example.a20_08_2024;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.Toast;

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 {

    Button btn;

    DatePicker dt;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn = (Button) findViewById(R.id.b1);
        dt = (DatePicker) findViewById(R.id.dpicker);
    }
}
```

```
btn.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View view) {  
        Toast.makeText(MainActivity.this, "Selected date is "+dt.getDayOfMonth()+"/"  
+(dt.getMonth()+1)+"/" +dt.getYear() ,Toast.LENGTH_SHORT).show();  
    }  
});  
}  
}
```

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
    android:orientation="vertical"
    tools:context=".MainActivity">
```

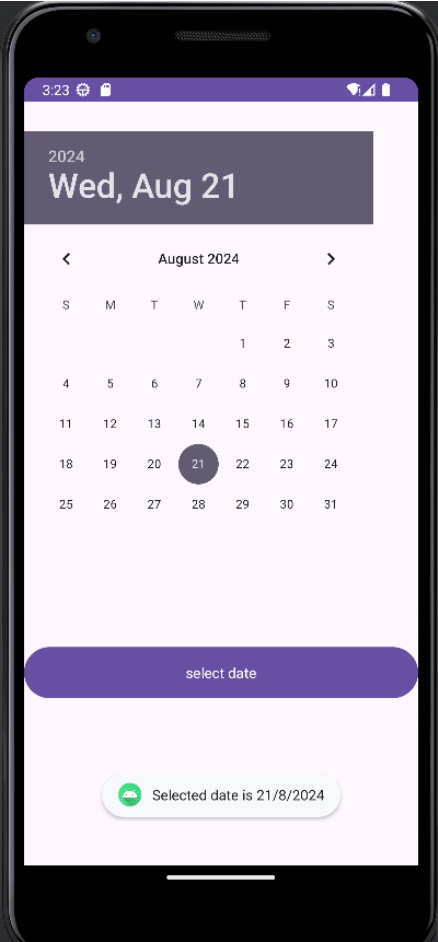
```
<Button
    android:id="@+id/b1"
    android:layout_width="match_parent"
    android:layout_height="59dp"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="0dp"
    android:layout_marginBottom="162dp"
    android:layout_weight="1"
    android:fontFamily="garamond"
    android:text="select date"
/>
```

```
<DatePicker
    android:id="@+id/dpicker"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

```
android:layout_alignParentStart="true"  
android:layout_alignParentEnd="true"  
android:layout_alignParentBottom="true"  
android:layout_gravity="center"  
android:layout_marginStart="0dp"  
android:layout_marginEnd="0dp"  
android:layout_marginBottom="299dp" />
```

```
</RelativeLayout>
```

Output:



27_08_2024_MAD_Lecture – Q11

Menu - Pop Up

MainActivity.java

```
package com.example.a27_08_2024;

import android.content.Intent;
import android.os.Bundle;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.PopupMenu;
import android.widget.Toast;

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 {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        Button btn= (Button)findViewById(R.id.button);
        btn.setOnLongClickListener(new View.OnLongClickListener() {
            @Override
            public boolean onLongClick(View view) {
```

```

PopupMenu p = new PopupMenu(MainActivity.this, btn);
p.getMenuInflater().inflate(R.menu.popup_m, p.getMenu());
p.setOnMenuItemClickListener(new PopupMenu.OnMenuItemClickListener() {
    @Override
    public boolean onMenuItemClick(MenuItem menuItem) {

        String menu=menuItem.getTitle().toString();
        if(menu.equals("two")){

            Intent i = new Intent(getApplicationContext(), second.class);
            startActivity(i);
        }
        else {
            Toast.makeText(MainActivity.this, "You Clicked on " +
menuItem.getTitle(), Toast.LENGTH_SHORT).show();
        }
        return true;
    }
});
p.show();
return true;
}

});

}
}

```


activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<RelativeLayout 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">
```

```
    <Button
```

```
        android:id="@+id/button"
```

```
        android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
```

```
        android:layout_alignParentEnd="true"
```

```
        android:layout_alignParentBottom="true"
```

```
        android:layout_marginEnd="152dp"
```

```
        android:layout_marginBottom="408dp"
```

```
        android:text="POP - UP" />
```

```
</RelativeLayout>
```

Second.java

```
package com.example.a27_08_2024;
```

```
import android.os.Bundle;
```

```
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 second extends AppCompatActivity {
```

```
    @Override
```

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

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_second);
```

```
    }
```

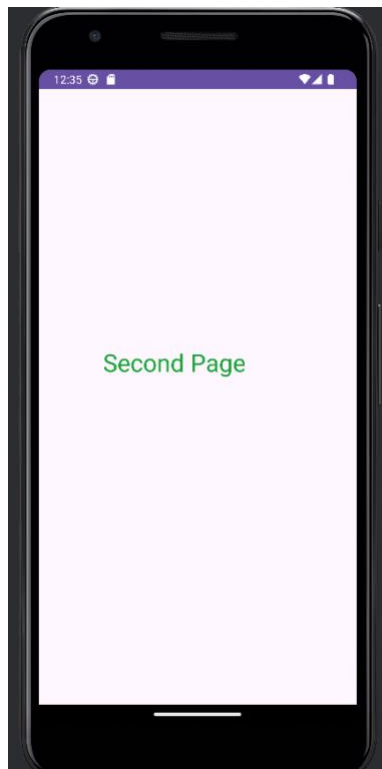
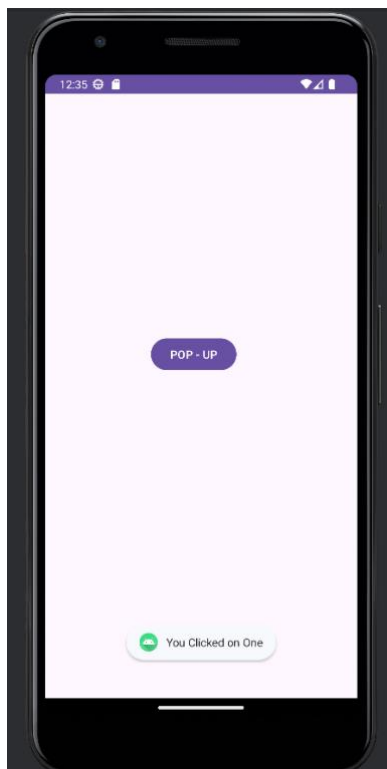
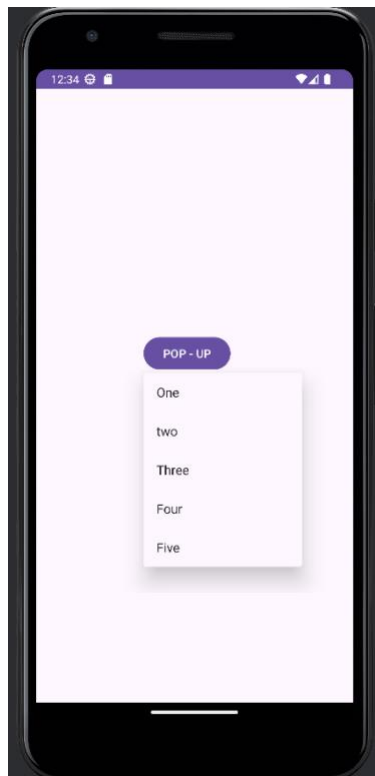
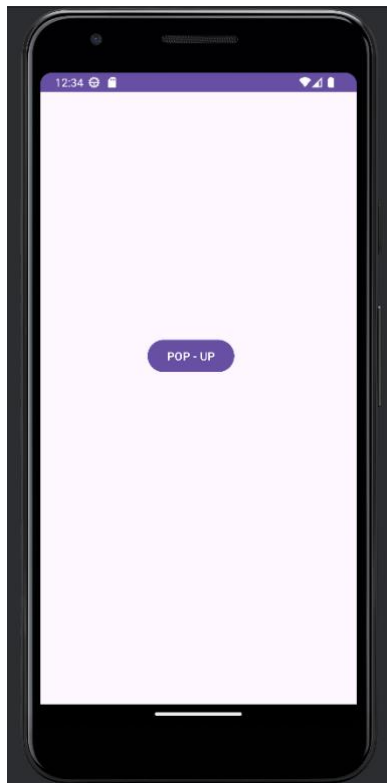
```
}
```

activity_second.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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=".second">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="137dp"
        android:layout_marginBottom="402dp"
        android:gravity="center_horizontal"
        android:text="Second Page"
        android:textColor="#16A435"
        android:textSize="30dp"
        tools:layout_editor_absoluteX="183dp"
        tools:layout_editor_absoluteY="308dp" />
</RelativeLayout>
```

Output:



Media Player

MainActivity.java

```
package com.example.mediaplayer;

import android.media.MediaPlayer;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageButton;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    MediaPlayer mp;
    ImageButton play, pause, stop;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        // Initialize MediaPlayer
        mp = MediaPlayer.create(this, R.raw.song);

        // Get references to UI buttons
        play = findViewById(R.id.play);
        pause = findViewById(R.id.pause);
        stop = findViewById(R.id.stop);

        // Play button logic
        play.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                if (mp != null && !mp.isPlaying()) {
                    mp.start();
                }
            }
        });

        // Pause button logic
```

```

    pause.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            if (mp != null && mp.isPlaying()) {
                mp.pause();
            }
        }
    });

    // Stop button logic
    stop.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            if (mp != null && mp.isPlaying()) {
                mp.stop();
                mp.release();
                mp = null;

                // Reinitialize MediaPlayer
                mp = MediaPlayer.create(MainActivity.this, R.raw.song);
            }
        }
    });
}

@Override
protected void onDestroy() {
    super.onDestroy();
    // Release MediaPlayer resources on destroy
    if (mp != null) {
        mp.release();
        mp = null;
    }
}
}

```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="20dp"
    tools:context=".MainActivity">

    <!-- Play Button -->
    <ImageButton
        android:id="@+id/play"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:src="@android:drawable/ic_media_play"/>

    <!-- Pause Button -->
    <ImageButton
        android:id="@+id/pause"
        android:layout_width="100dp"
        android:layout_height="100dp"
        android:src="@android:drawable/ic_media_pause"/>

    <!-- Stop Button -->
    <ImageButton
        android:id="@+id/stop"
        android:layout_width="100dp"
        android:layout_height="100dp"/>
</LinearLayout>
```

Output:

