1. How permission in android is defined and checked Explain with Gallery and Camera Permission.

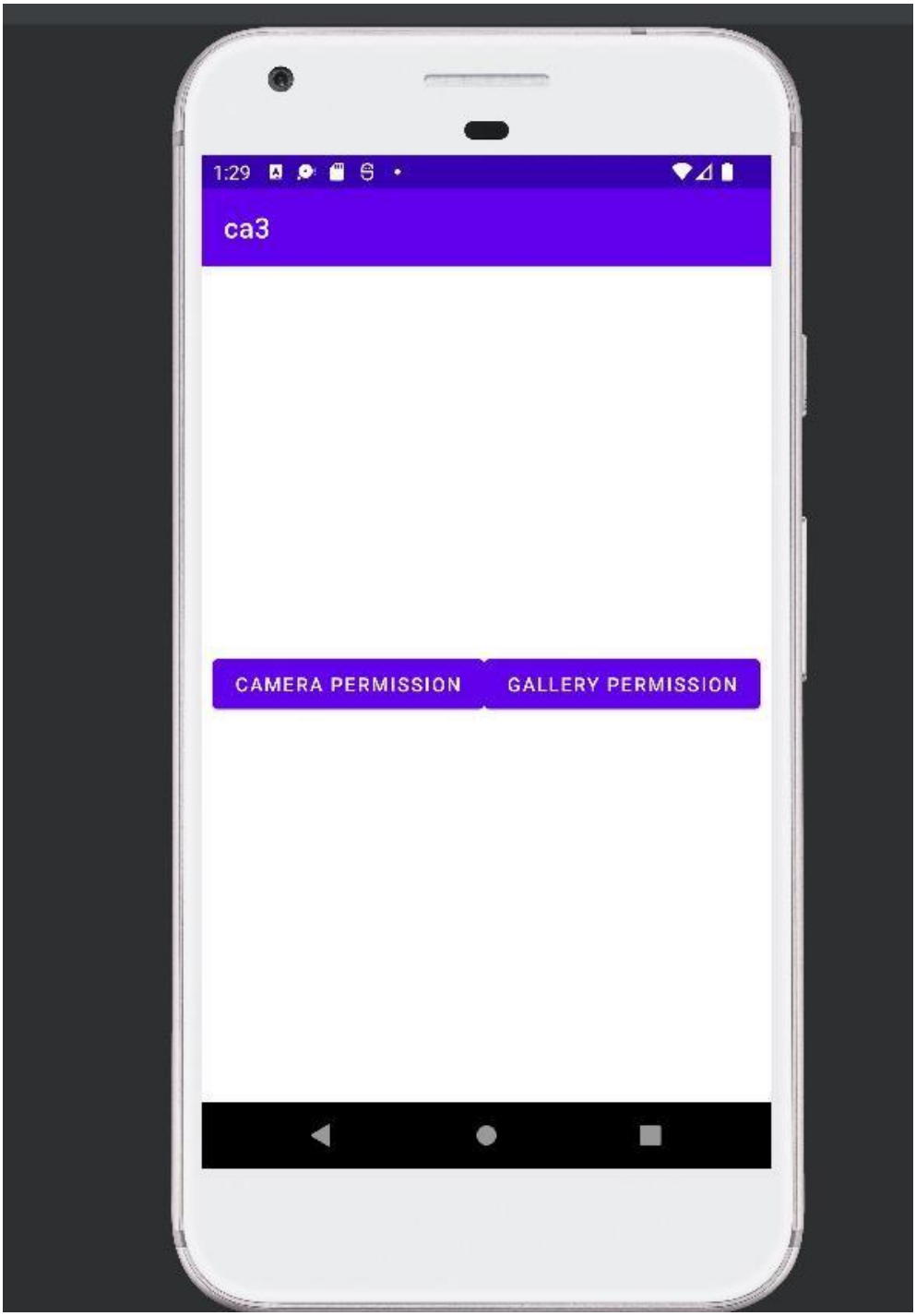
Xml File

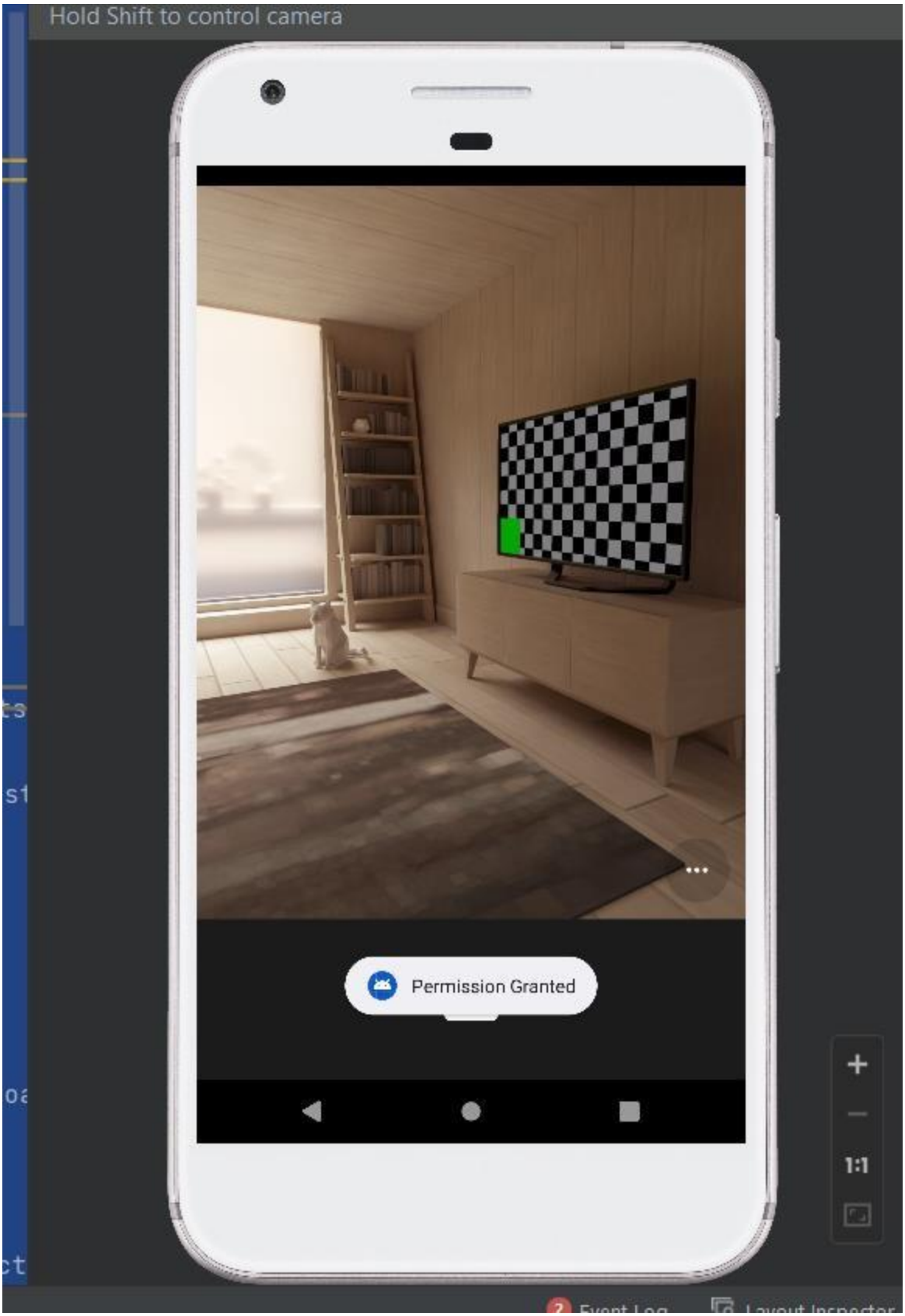
```
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"     android:gravity="center"
tools:context=".MainActivity">

    <Button
        android:id="@+id/btn1"
        android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="camera permission"

        />

    <Button
        android:id="@+id/btn2"
        android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Gallery Permission"
         />

</LinearLayout>
```

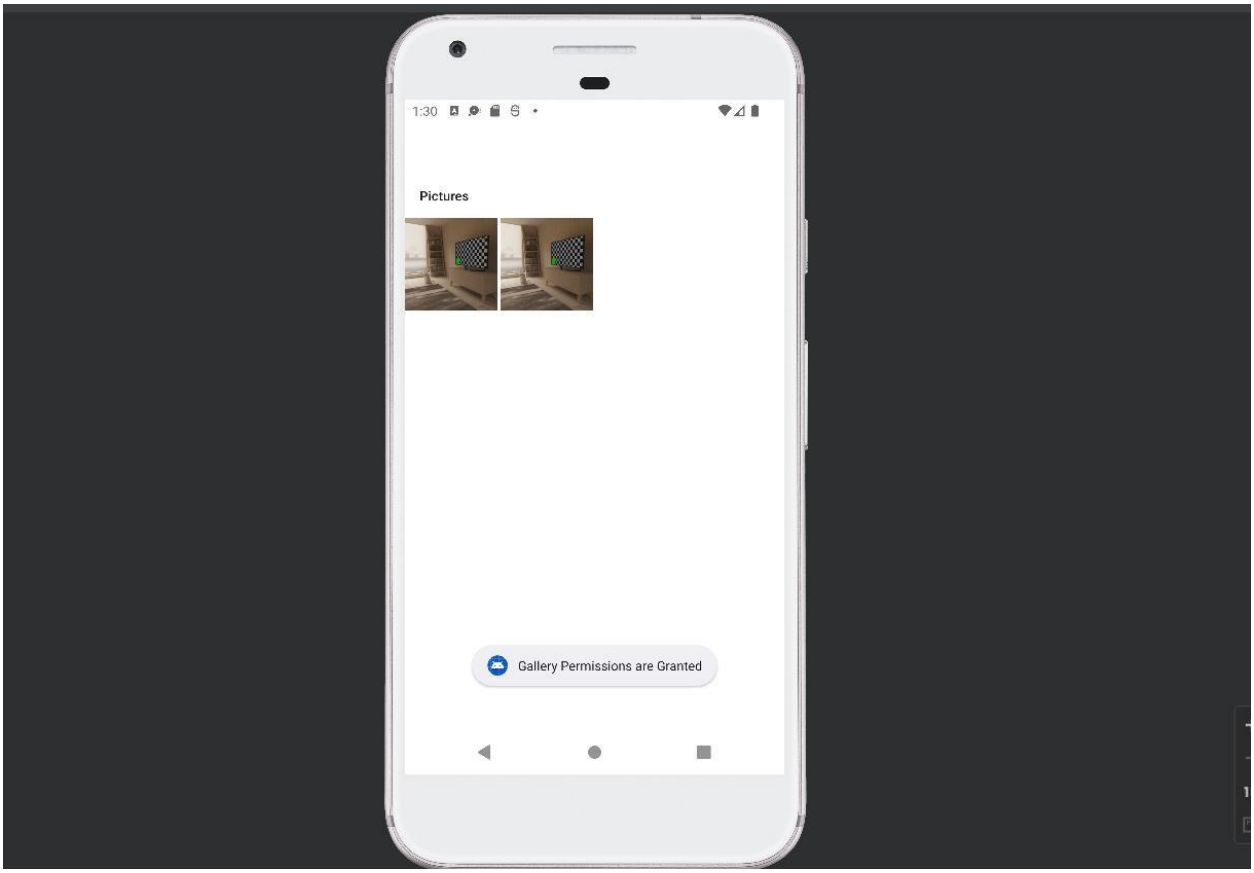
Kotlin File

```
package com.example.ca3

import android.content.Intent
import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle import
android.provider.MediaStore import
android.widget.Button import
android.widget.Toast
import
androidx.activity.result.contract.ActivityResultContracts
import androidx.constraintlayout.widget.ConstraintLayout import
com.google.android.material.snackbar.Snackbar

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?)
{         super.onCreate(savedInstanceState)
setContentView(R.layout.activity_main)          val btn1
= findViewById<Button>(R.id.btn1)          val btn2 =
findViewById<Button>(R.id.btn2)

        val requestCam =
registerForActivityResult(ActivityResultContracts.RequestPermission()){
if(it){
                Toast.makeText(this,"Permission Granted",
Toast.LENGTH_LONG).show()
                val int_cmr =
Intent(MediaStore.ACTION_IMAGE_CAPTURE)
startActivity(int_cmr)                  finish()

            }
else{
                Toast.makeText(this,"Permission is denied",
Toast.LENGTH_LONG).show()
            }
        }

        val requestgall =
registerForActivityResult(ActivityResultContracts.RequestPermission()){
if(it){
            Toast.makeText(this,"Gallery Permissions are
Granted",Toast.LENGTH_LONG).show()
                 val gal_int =
Intent(Intent.ACTION_VIEW)
gal_int.setType("image/*")
startActivity(gal_int)                  finish()



            }
else{
                Toast.makeText(this,"Gallery Permissions are
Granted",Toast.LENGTH_LONG).show()
```

```
            }
        }
        btn1.setOnClickListener {
requestCam.launch(android.Manifest.permission.CAMERA)
        }
        btn2.setOnClickListener {

requestgall.launch(android.Manifest.permission.READ_EXTERNAL_STORAGE)
        }


    }
}
```


1:29
ca3
CAMERA PERMISSION
GALLERY PERMISSION


Hold Shift to control camera
Permission Granted
1:1
Event Log
Layout Inspector


1:30
Pictures
Gallery Permissions are Granted

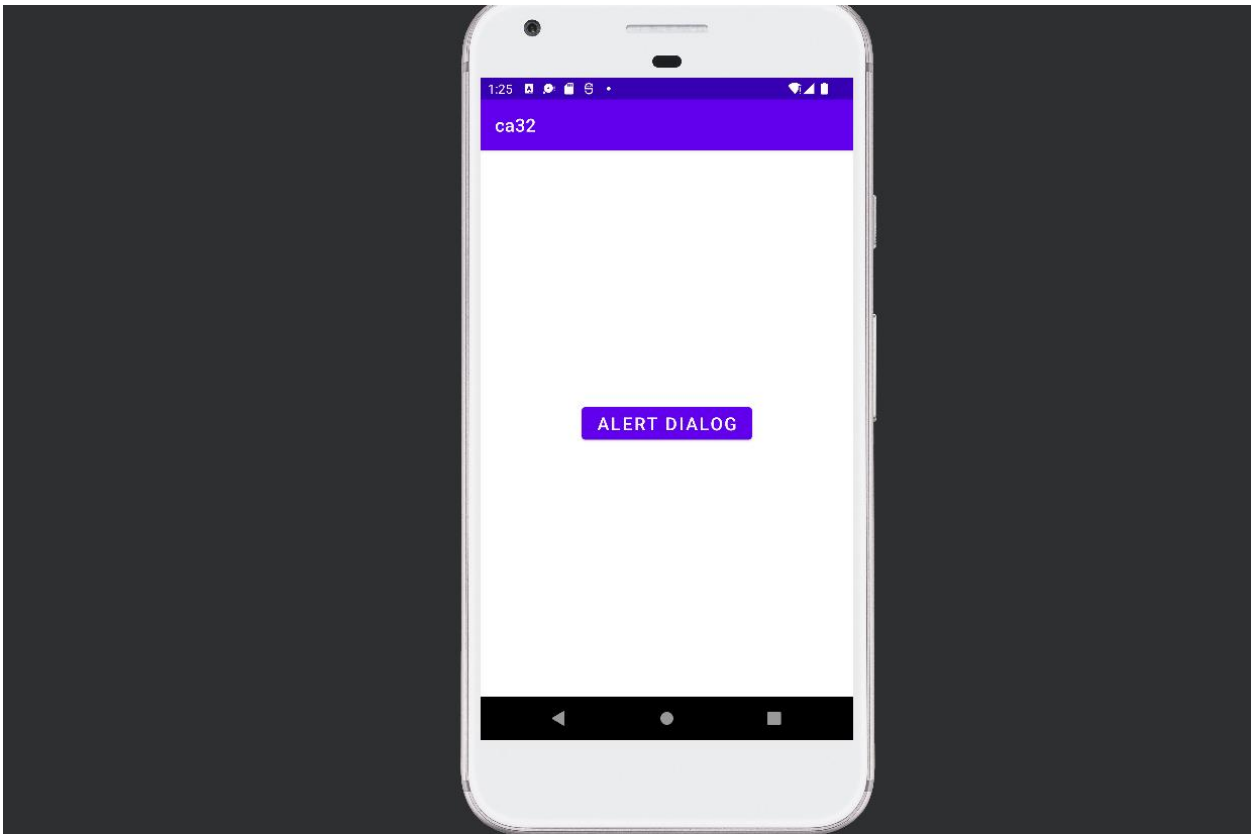
2. what is Alert Dialog Box in android. Explain with the help of Suitable Examples.

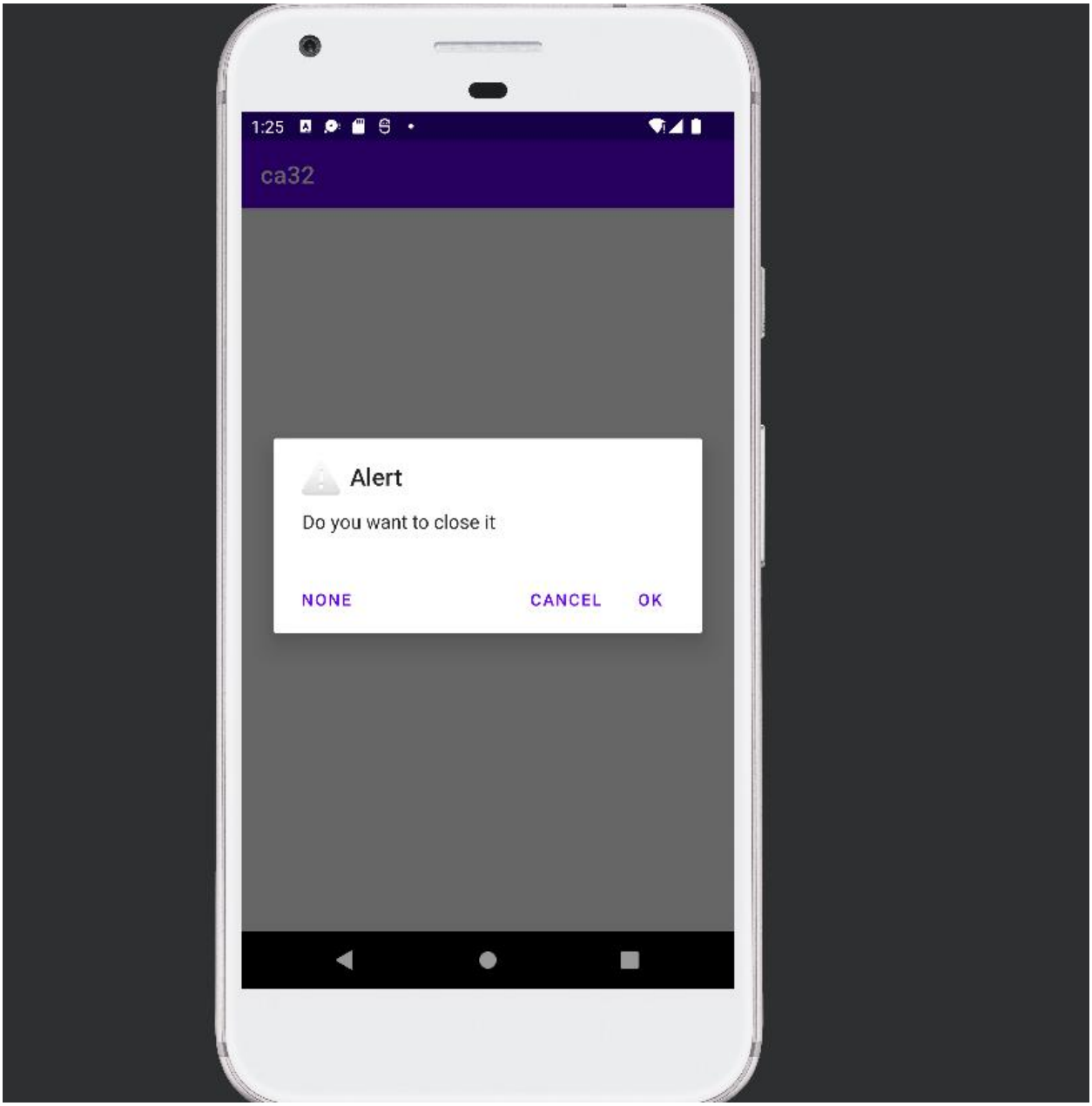
Xml File:

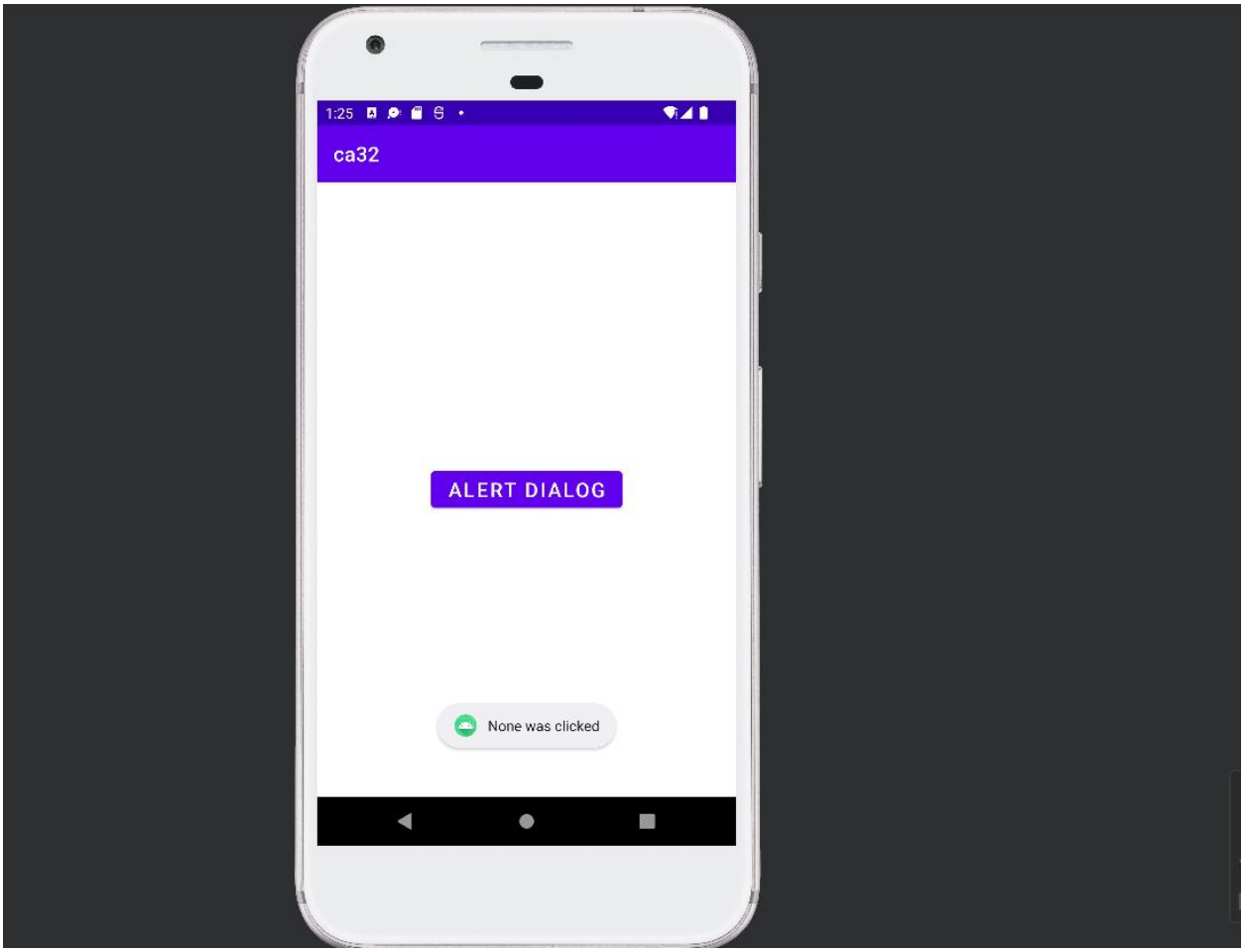
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"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

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:id="@+id/btn1"
        android:textSize="20sp"
        android:text="Alert Dialog"/>



</LinearLayout>
```

Kotlin File:

```
package com.example.ca32

import androidx.appcompat.app.AppCompatActivity
import android.os.Bundle
import android.widget.Button
import android.widget.Toast
import androidx.appcompat.app.AlertDialog

class MainActivity : AppCompatActivity() {
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)

        val btn1 = findViewById<Button>(R.id.btn1)

        btn1.setOnClickListener {
            val builder = AlertDialog.Builder(this)

            builder.setTitle("Alert")
                .setMessage("Do you want to close it")


                .setIcon(android.R.drawable.ic_dialog_alert)
                .setPositiveButton("ok"){i, which->
                    Toast.makeText(this,"ok was clicked",
Toast.LENGTH_LONG).show()

                }

                .setNegativeButton("Cancel"){i,which->
                    Toast.makeText(this,"Cancel was clicked",
Toast.LENGTH_LONG).show()

                }

                .setNeutralButton("NoNe"){
                        i, which-> Toast.makeText(this,"None was clicked",
Toast.LENGTH_LONG).show()

                }

                .show()
        }
    }
}
```


1:25
ca32
ALERT DIALOG


1:25
ca32
Alert
Do you want to close it
NONE
CANCEL
OK


1:25
ca32
ALERT DIALOG
None was clicked