AndroidManifest.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest
xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.cameraapplication">

    <uses-permission
android:name="android.permission.CAMERA"/>
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"

android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"

android:theme="@style/Theme.CameraApplication">
        <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>
```

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
```

MainActivity.java

```java
package com.example.cameraapplication;
import android.Manifest;
import android.app.Activity;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.graphics.Bitmap;
import android.provider.MediaStore;
//import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.Toast;

import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;

public class MainActivity extends AppCompatActivity {

    Button btn;
    private static final int CAMERA_REQUEST = 123;
    ImageView imageView;



    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn = (Button)findViewById(R.id.idbtn);
        imageView = (ImageView )
findViewById(R.id.imageView);


    }
    public void btnClick(View v){
```

```xml
xmlns:android="http://schemas.android.com/apk/res/a
ndroid"
    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:background="#54A8EC"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/idbtn"
        android:layout_width="325dp"
        android:layout_height="54dp"
        android:layout_gravity="center"
        android:fontFamily="monospace"
        android:onClick="btnClick"
        android:text="Launch Camera"
        android:textSize="20sp"

app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.76"
/>

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="300dp"
        android:layout_height="300dp"
        android:layout_gravity="center"
        android:background="#ccc"
        android:padding="5dp"

app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
```

```java
if(ActivityCompat.checkSelfPermission(this,Manifest.permissio
n.CAMERA) != PackageManager.PERMISSION_GRANTED)
        {
            Toast.makeText(this, "Please grant permission to
camera", Toast.LENGTH_SHORT).show();
            requestPermission();
        }
        else
        {
            Intent intent = new
Intent(MediaStore.ACTION_IMAGE_CAPTURE);
            startActivityForResult(intent, CAMERA_REQUEST);
        }


    }
    private void requestPermission()
    {
        ActivityCompat.requestPermissions(this,new
String[]{Manifest.permission.CAMERA},1);
    }
    public void onActivityResult(int requestCode, int
resultCode, Intent data) {
        super.onActivityResult(requestCode, resultCode,
data);
        if (requestCode == CAMERA_REQUEST && resultCode ==
Activity.RESULT_OK) {
            Bitmap photo = (Bitmap)
data.getExtras().get("data");
            imageView.setImageBitmap(photo);

        }
    }
}
```

strings.xml

```
app:layout_constraintHorizontal_bias="0.495"

app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.308"
/>

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

```xml
<resources>
    <string name="app_name">CameraApplication</string>
    <string name="launch_camera">Launch Camera</string>
    <string name="todo">TODO</string>
</resources>
```

Output