**package** com.example.facedetection;  
  
**import** androidx.annotation.NonNull;  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.Manifest;  
**import** android.app.Activity;  
**import** android.content.Intent;  
**import** android.content.pm.PackageManager;  
**import** android.graphics.Bitmap;  
**import** android.os.Bundle;  
**import** android.util.Base64;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.ImageView;  
**import** android.widget.Toast;  
  
**import** java.io.ByteArrayOutputStream;  
**import** java.io.IOException;  
  
  
**public class** MainActivity **extends** AppCompatActivity {  
 **private static final int *CAMERA\_REQUEST*** = 1888;  
 **private** ImageView **imageView**;  
 **private static final int *MY\_CAMERA\_PERMISSION\_CODE*** = 100;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **this**.**imageView** = (ImageView)**this**.findViewById(R.id.***imageView1***);  
 Button photoButton = (Button) **this**.findViewById(R.id.***button1***);  
 photoButton.setOnClickListener(**new** View.OnClickListener()  
 {  
 @Override  
 **public void** onClick(View v)  
 {  
 **if** (checkSelfPermission(Manifest.permission.***CAMERA***) != PackageManager.***PERMISSION\_GRANTED***)  
 {  
 requestPermissions(**new** String[]{Manifest.permission.***CAMERA***}, ***MY\_CAMERA\_PERMISSION\_CODE***);  
 }  
 **else** {  
 Intent cameraIntent = **new** Intent(android.provider.MediaStore.***ACTION\_IMAGE\_CAPTURE***);  
 startActivityForResult(cameraIntent, ***CAMERA\_REQUEST***);  
 }  
 }  
 });  
 }  
  
 @Override  
 **public void** onRequestPermissionsResult(**int** requestCode, @NonNull String[] permissions, @NonNull **int**[] grantResults)  
 {  
 **super**.onRequestPermissionsResult(requestCode, permissions, grantResults);  
 **if** (requestCode == ***MY\_CAMERA\_PERMISSION\_CODE***)  
 {  
 **if** (grantResults[0] == PackageManager.***PERMISSION\_GRANTED***)  
 {  
 Toast.*makeText*(**this**, **"camera permission granted"**, Toast.***LENGTH\_LONG***).show();  
 Intent cameraIntent = **new** Intent(android.provider.MediaStore.***ACTION\_IMAGE\_CAPTURE***);  
 startActivityForResult(cameraIntent, ***CAMERA\_REQUEST***);  
 }  
 **else** {  
 Toast.*makeText*(**this**, **"camera permission denied"**, Toast.***LENGTH\_LONG***).show();  
 }  
 }  
 }  
  
 @Override  
 **protected void** onActivityResult(**int** requestCode, **int** resultCode, Intent data)  
 {  
 **if** (requestCode == ***CAMERA\_REQUEST*** && resultCode == Activity.***RESULT\_OK***)  
 {  
 Bitmap photo = (Bitmap) data.getExtras().get(**"data"**);  
 **imageView**.setImageBitmap(photo);  
  
 ByteArrayOutputStream byteArrayOutputStream = **new** ByteArrayOutputStream();  
 photo.compress(Bitmap.CompressFormat.***PNG***,100,byteArrayOutputStream);  
 **byte**[] byteArray=byteArrayOutputStream.toByteArray();  
 String encoded = Base64.*encodeToString*(byteArray,Base64.***DEFAULT***);  
  
 }}}