

DATE:**IMAGE CAPTURE****AIM:**

Develop an android application to capture image using camera and displaying the image using ImageView.

PROCEDURE:

- Open Android Studio and import the package
- In activity_main.xml drag and drop the buttons
- The button needs to perform actions to change the colour, font size and background colour
- Click android virtual device that should control the toolbar
- Design the graphical layout with the textview and buttons
- Run the application
- The version of android and name is displayed
- The theme of the file is also mentioned in a file
- Run the file using the version which is displayed to the users.

PROGRAM CODE:**AndroidManifest.xml:**

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
package="com.example.cameraimagecapture">
<uses-feature android:name="android.hardware.camera" />
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
<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:supportRtl="true"
android:theme="@style/AppTheme">
<activity android:name=".MainActivity">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
</application>
</manifest>
```

activity_main.xml:

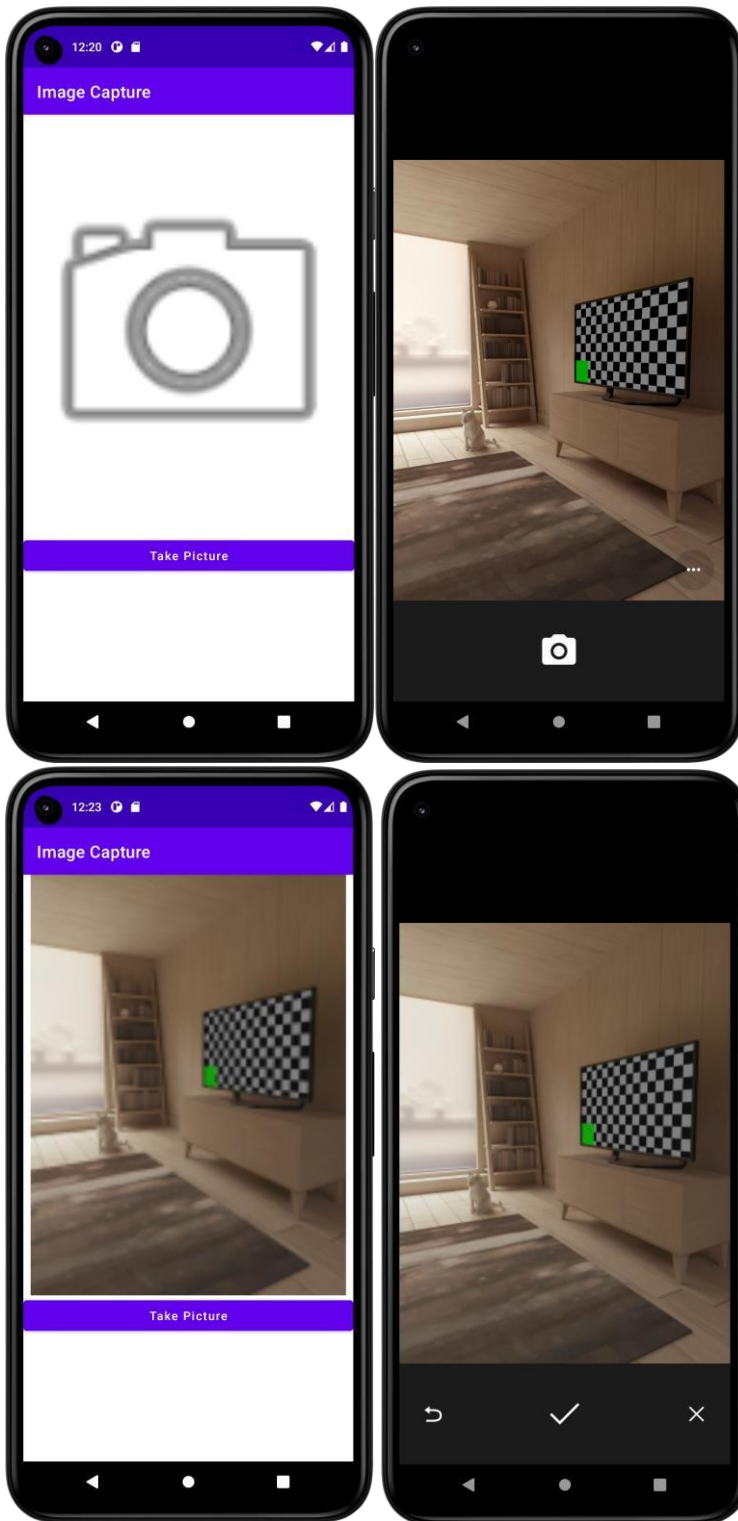
```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:layout_margin="16dp"
        android:adjustViewBounds="true"
        android:scaleType="centerCrop" />
    <Button
        android:id="@+id/buttonCapture"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Capture Image"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="32dp" />
</RelativeLayout>
```

MainActivity.kt:

```
package com.example.cameraimagecapture
import android.app.Activity
import android.content.Intent
import android.graphics.BitmapFactory
import android.os.Bundle
import android.provider.MediaStore
import android.widget.Button
import android.widget.ImageView
import androidx.appcompat.app.AppCompatActivity
class MainActivity : AppCompatActivity() {
    private lateinit var imageView: ImageView
    private lateinit var buttonCapture: Button
    private val REQUEST_IMAGE_CAPTURE = 1
    override fun onCreate(savedInstanceState: Bundle?) {
        super.onCreate(savedInstanceState)
        setContentView(R.layout.activity_main)
        imageView = findViewById(R.id.imageView)
        buttonCapture = findViewById(R.id.buttonCapture)
        buttonCapture.setOnClickListener {
            dispatchTakePictureIntent()
        }
    }
}
```

```
}  
}  
private fun dispatchTakePictureIntent() {  
    Intent(MediaStore.ACTION_IMAGE_CAPTURE).also { takePictureIntent ->  
        takePictureIntent.resolveActivity(packageManager)?.also {  
            startActivityForResult(takePictureIntent, REQUEST_IMAGE_CAPTURE)  
        }  
    }  
}  
}  
override fun onActivityResult(requestCode: Int, resultCode: Int, data: Intent?) {  
    super.onActivityResult(requestCode, resultCode, data)  
    if (requestCode == REQUEST_IMAGE_CAPTURE && resultCode == Activity.RESULT_OK) {  
        val imageBitmap = data?.extras?.get("data") as? android.graphics.Bitmap  
        imageView.setImageBitmap(imageBitmap)  
    }  
}  
}
```

OUTPUT:



RESULT: