Ex. No. 06 **Implement an application that uses Multi-**

Aim:

To develop an Android Application that implements Multi threading.

Procedure:

Creating a New project:

- Open Android Studio and then click on **File -> New -> New project**.
- Then type the Application name as **"exno6"**and click Next.
- Then **select the Minimum SDK** as shown below and click next.
- Then **select the Empty Activity** and click next.
- Finally click **Finish**.
- It will take some time to build and load the project.

Designing layout for the Android Application:

- Click on **app -> res -> layout -> activity_main.xml.**

Code for Activity_main.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" >

<ImageView
    android:id="@+id/imageView"
    android:layout_width="250dp"
    android:layout_height="250dp"
    android:layout_margin="50dp"
    android:layout_gravity="center"
    />

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_gravity="center"
    android:text="Load Image 1" />
```

```
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_margin="10dp"
    android:layout_gravity="center"
    android:text="Load image 2" />

</LinearLayout>
```

Java Coding for the Android Application:

- Click on **app -> java -> com.example.exno6 -> MainActivity**.

Code for MainActivity.java:

```
packagecom.example.exno6;
import android.os.Bundle;
//import android.support.v7.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import
android.widget.ImageView;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity
{
  ImageView
  img;Button
  bt1,bt2;
  @Override
  protected void onCreate(Bundle savedInstanceState)
  {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    bt1 =
    (Button)findViewById(R.id.button); bt2=
    (Button) findViewById(R.id.button2);
    img = (ImageView)findViewById(R.id.imageView);
```

```
bt1.setOnClickListener(new View.OnClickListener()
{
  @Override
  public void onClick(View v)
  {
    new Thread(new Runnable()
    {
      @Override
      public void
      run()
      {
        img.post(new Runnable()
        {
          @Override
          public void
          run()
          {
            img.setImageResource(R.drawable.india1);
          }
        });
      }
```

```
}).start
();

    bt2.setOnClickListener(new View.OnClickListener()
    {
      @Override
      public void onClick(View v)
      {
        new Thread(new Runnable()
        {
          @Override
          public void
          run()
          {
            img.post(new Runnable()
            {
              @Override
              public void
              run()
              {
                img.setImageResource(R.drawable.india2);
              }
            });
          }
```

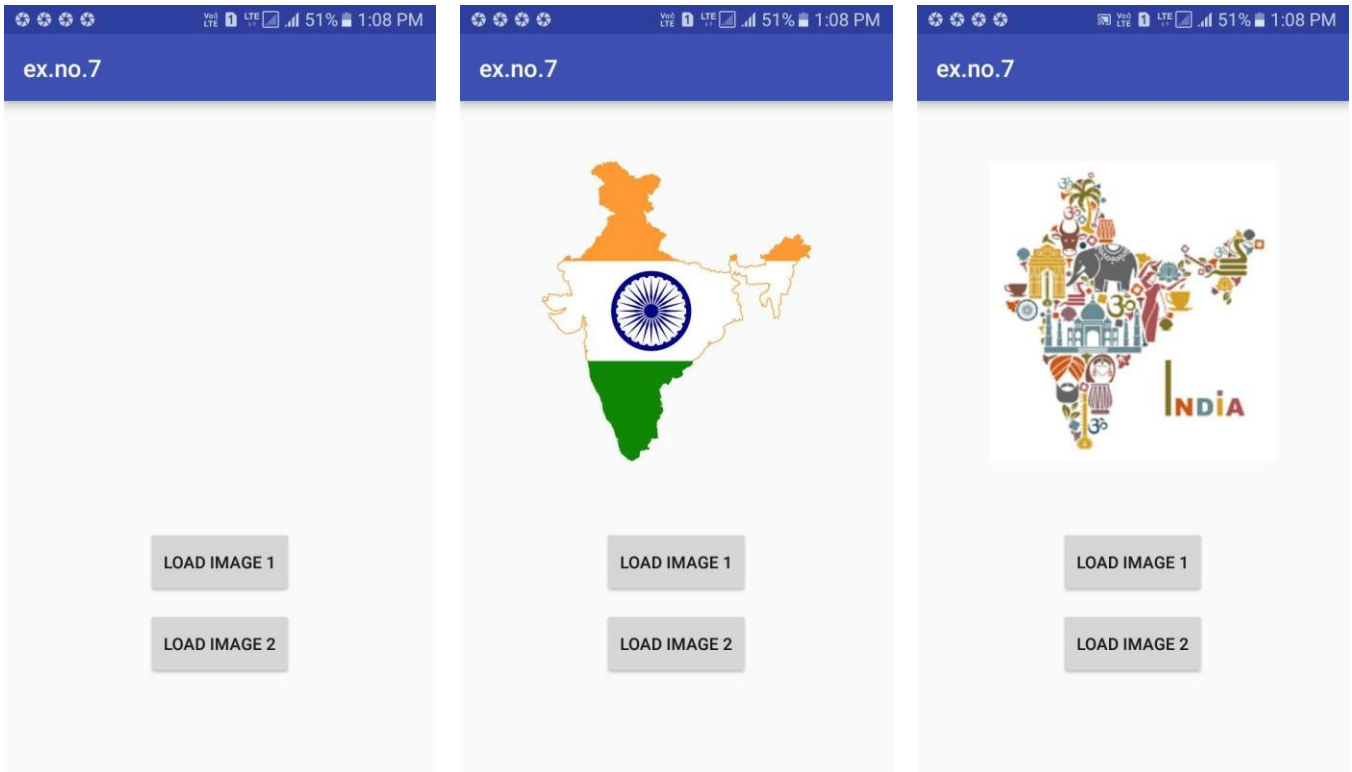
```
        }).start();
  }
);
    }
}
```

- Run the application to see the output.

Note:

Before running the application, copy the images given below and paste it in **"app -> res -> drawable"** by pressing **"right click mouse button on drawable"** and selecting the **"Paste"** option.

Output:



Result:

Thus Android Application that implements Multi threading is developed and executed successfully.