Slips 4

Q.1) Construct image switcher using setFactory().

Ans.

```
<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">

   <ImageSwitcher        android:id="@+id/imageSwitcher"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:layout_centerInParent="true"
android:layout_margin="10dp" />

   <Button        android:id="@+id/buttonPrev"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Previous"
android:layout_alignParentStart="true"
android:layout_alignParentBottom="true"
android:layout_margin="16dp"
android:onClick="showPreviousImage" />

   <Button        android:id="@+id/buttonNext"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Next"
android:layout_alignParentEnd="true"
```

```
android:layout_alignParentBottom="true"
android:layout_margin="16dp"
android:onClick="showNextImage" />
</RelativeLayout>
```

MainActivity.java- package

```
com.example.myapplication;

import android.os.Bundle; import android.view.View; import
android.widget.ImageSwitcher; import
android.widget.ImageView; import android.widget.Button;
import android.widget.ViewSwitcher; import
androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

   private ImageSwitcher imageSwitcher;
   private int[] images = {R.drawable.ic_launcher_background,
R.drawable.ic_launcher_foreground, R.drawable.image3};     private int
currentIndex = 0;

   @Override
   protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);        imageSwitcher =
findViewById(R.id.imageSwitcher);        imageSwitcher.setFactory(new
ViewSwitcher.ViewFactory() {            @Override            public View
makeView() {
            ImageView imageView = new
ImageView(getApplicationContext());
```

```
imageView.setScaleType(ImageView.ScaleType.CENTER_INSIDE);
            imageView.setLayoutParams(new ImageSwitcher.LayoutParams(
                    ImageSwitcher.LayoutParams.MATCH_PARENT,
ImageSwitcher.LayoutParams.MATCH_PARENT));
            return imageView;
        }
    });

    showImage(currentIndex);
  }

  public void showPreviousImage(View view) {
    if (currentIndex > 0) {          currentIndex--
;
    } else {
      currentIndex = images.length - 1;
    }
    showImage(currentIndex);
  }

  public void showNextImage(View view) {       if
(currentIndex < images.length - 1) {
      currentIndex++;
    } else {
      currentIndex = 0;
    }
    showImage(currentIndex);
  }
```

```
    private void showImage(int index) {
imageSwitcher.setImageResource(images[index]);
    }
}
```

Q.2) Write a program to search a specific location on Google Map.

Ans.

```
<?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">

    <EditText        android:id="@+id/editTextLocation"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_margin="16dp"         android:hint="Enter
location to search" />

    <Button         android:id="@+id/buttonSearch"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@id/editTextLocation"
android:layout_centerHorizontal="true"
android:layout_marginTop="16dp"
android:text="Search"
android:onClick="searchLocation" />
```

</RelativeLayout>

MainActivity.java- package
com.example.myapplication;

import android.content.Intent; import
android.net.Uri; import
android.os.Bundle; import
android.view.View; import
android.widget.EditText; import
androidx.appcompat.app.AppCompa
tActivity;

public class MainActivity extends AppCompatActivity { private
EditText editTextLocation;

@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

editTextLocation = findViewById(R.id.editTextLocation);
}

public void searchLocation(View view) {
String location = editTextLocation.getText().toString().trim(); if
(!location.isEmpty()) {
// Encode the location query
String encodedLocation = Uri.encode(location);

```
            // Create a Uri for the Google Maps search intent
            Uri gmmIntentUri = Uri.parse("geo:0,0?q=" + encodedLocation);

            // Create an intent to open Google Maps
            Intent mapIntent = new Intent(Intent.ACTION_VIEW, gmmIntentUri);
            mapIntent.setPackage("com.google.android.apps.maps");
// Use the Google Maps app
            if (mapIntent.resolveActivity(getPackageManager()) != null)
{
                startActivity(mapIntent);
            } else {
                // Handle the case where Google Maps app is not installed
                // Alternatively, you can open the location in a web browser
            }
        }
    }
}
```