Lab Exercise 7

IT2010 – Mobile Application Design and Development
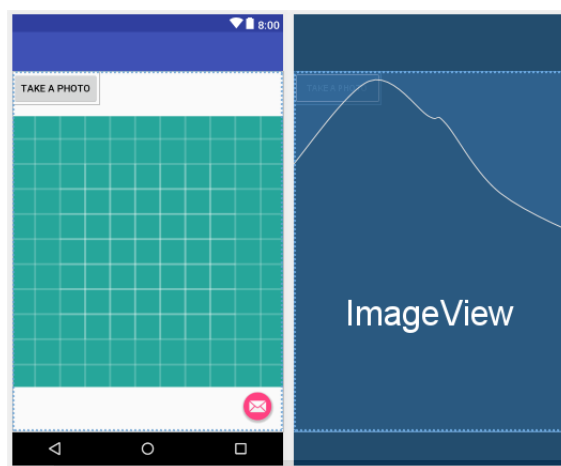
Semester 2, 2018

In this Lab Exercise, we are writing the simple code to capture image using camera and displaying the image using imageview.

1. Accessing the camera in the mobile.
   a) Design an activity to capture a photo using the camera and display it in an ImageView.
   b) Create an Activity with an ImageVew.

   c) Do the following coding to the project manifest.xml. This will give access rights for the camera and permission to access the storage of the mobile.

```xml
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.                    '>

    <uses-feature
        android:name="android.hardware.camera"
        android:required="true" />

    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE" />
```

   d) Define the following in the class level.

```java
private static final int CAMERA_REQUEST = 1888;
ImageView imageView;
```

e) Add the following code in the java file of the activity. This will open the camera which allows to take a photo.

```java
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) {
        Intent cameraIntent = new Intent(android.provider.MediaStore.ACTION_IMAGE_CAPTURE);
        startActivityForResult(cameraIntent, CAMERA_REQUEST);
    }
});
```

f) Override the onActivityResult method to access the photo taken by the camera application. Get the photo using data.getExtras(). Get the relavent value and set it as the image of the ImageView.

```java
@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    super.onActivityResult(requestCode, resultCode, data);
    if (requestCode == CAMERA_REQUEST) {
        Bitmap photo = (Bitmap) data.getExtras().get("data");
        imageView.setImageBitmap(photo);
    }
}
```