Ex.No: 7 Date :	**Write an application that draws basic graphical primitives on the screen**

AIM:

To develop an application that draws basic graphical primitives on the screen.

PROCEDURE:

1. Open Eclipse IDE.
2. Create the project Ex_No_7.
3. Go to package explorer in the left hand side. Select the project Ex_No_7.
4. Go to res folder and select layout. Double click the activity_main.xml file.
5. Now you can see the Graphical layout window.
6. Drag and drop only one ImageView
7. Again go to package explorer in the left hand side. Select the project Ex_No_6.
8. Go to src folder. Double click the MainActivity.java file.
9. In java file write the activities done by the application such as drawing the graphical primitives.
10. Finally run the android application.

PROGRAMS:

activity_main.xml:

```
<RelativeLayout      xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools" an-
    droid:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="com.example.ex_no_7.MainActivity" >

    <ImageView
        android:id="@+id/imageView1
        "
        android:layout_width="wrap_
        content"
        android:layout_height="wrap
        _content"
        android:layout_alignParentB
        ottom="true"
        android:layout_alignParentL
        eft="true"
```

```
        android:layout_alignParentR
        ight="true"
        android:layout_alignParentT
        op="true"
        android:src="@drawable/ic_l
        auncher"
        tools:ignore="ContentDescri
        ption" />

</RelativeLayout
>
```

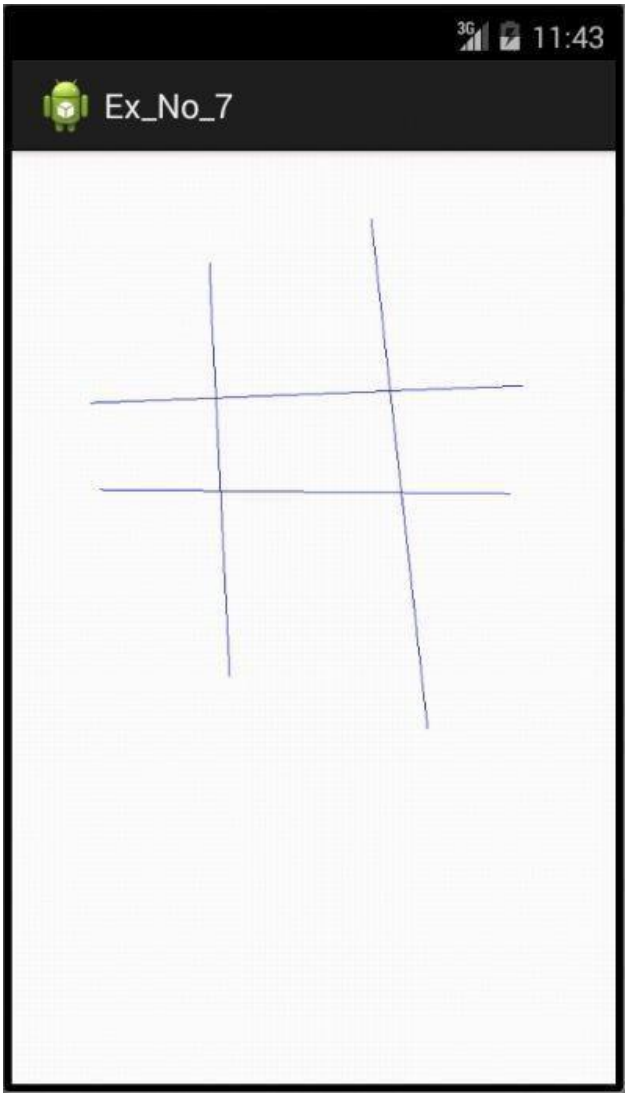
MainActivity.java:

```
package com.example.ex_no_7;
import
android.support.v7.app.ActionBarActivity;
import android.annotation.SuppressLint;



import
android.graphics.B
itmap;      import
android.graphics.C
anvas;      import
android.graphics.C
olor;       import
android.graphics.P
aint;       import
android.os.Bundle;
import
android.view.Displ
ay;         import
android.view.Motio
nEvent;     import
android.view.View;
import
android.view.View.OnTouchListener;
import android.widget.ImageView;
@SuppressLint("ClickableViewAccessibility")
public   class   MainActivity   extends   ActionBarActivity   implements
      OnTouchListener { ImageView iv; Bitmap b;
       Ca
       nv
       as
       c;
       Pa
       in
       t
       p;
```

```
float dx=0,dy=0,ux=0,uy=0;
@SuppressWarnings("deprecation")
@Override
protected        void        onCreate(Bundle
       savedInstanceState)                 {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_mai
       n);
       iv=(ImageView)this.findViewById(R.id.ima
       geView1);        Display        d        =
       getWindowManager().getDefaultDisplay();
       float  dw  =  d.getWidth();  float  dh  =
       d.getHeight();
       b     =     Bitmap.createBitmap((int)     dw,     (int)
       dh,Bitmap.Config.ARGB_8888); c = new Canvas(b); p = new
       Paint();
       p.setColor(Color.BLUE);
       iv.setImageBitmap(b);
       iv.setOnTouchListener(this);
}
@
O
v
e
r
r
i
d
e
public boolean onTouch(View v, MotionEvent event) {
       //     TODO     Auto-
       generated method stub
       int      action      =
       event.getAction();
       switch (action)
       {                    case
              MotionEvent.ACTION
              _DOWN:     dx     =
              event.getX(); dy =
              event.getY();
              break;
              case
                           MotionEve
                           nt.ACTION
                           _MOVE:
                           break;
              case
                           Motio
                           nEven
                           t.ACT
                           ION_U
```

```
                        P: ux
                        =
                        event
                        .getX
                        ();
                        uy  =
                        event
                        .getY
                        ();
                        c.drawLine(dx,
                        dy, ux, uy, p);
                        iv.invalidate();
                        break;
                case
                        MotionEvent
                        .ACTION_CAN
                        CEL: break;
                default:
                        break;
        }
        return true;
        }
}
```

OUTPUT:



RESULT:

Thus the application that draws basic graphical primitives on the screen has been developed and the output was verified.