**Assignment number: 12**

**Subject: COMPUTER GRAPHICS LAB**

Name: ***RIA MITTAL***

Class: ***SECOND YEAR ENGINEERING***

Division: ***B***

Roll no: ***222008***

Batch: ***B1***

**PROBLEM STATEMENT:**

Write C++/Java program to implement translation, sheer, rotation and scaling transformations on equilateral triangle and rhombus.

**Code:**

package transformation;

import java.awt.\*;

import javax.swing.\*;

public class Transformation extends JFrame {

public void paint(Graphics g)

{

Graphics2D g2d = (Graphics2D) g;

//g2d.setBackground(Color.yellow);

g2d.fillRect(100, 100, 150, 70);

g2d.setColor(Color.blue);

g2d.translate(100, 100);

g2d.fillRect(100, 100, 150, 70);

g2d.setColor(Color.CYAN);

g2d.translate(100, 100);

g2d.rotate(45,100,100);

g2d.fillRect(100, 100, 150, 70);

g2d.setColor(Color.magenta);

g2d.translate(100, 100);

g2d.translate(100, 100);

g2d.scale(0.5, 0.5);

g2d.fillRect(100, 100, 150, 70);

g2d.translate(100, 100);

g2d.translate(100, 100);

g2d.setColor(Color.red);

g2d.shear(0.5, 0.9);

g2d.fillRect(100, 100, 150, 70);

}

public static void main(String[] args) {

// TODO code application logic here

Transformation a=new Transformation();

a.setSize(1000,1000);

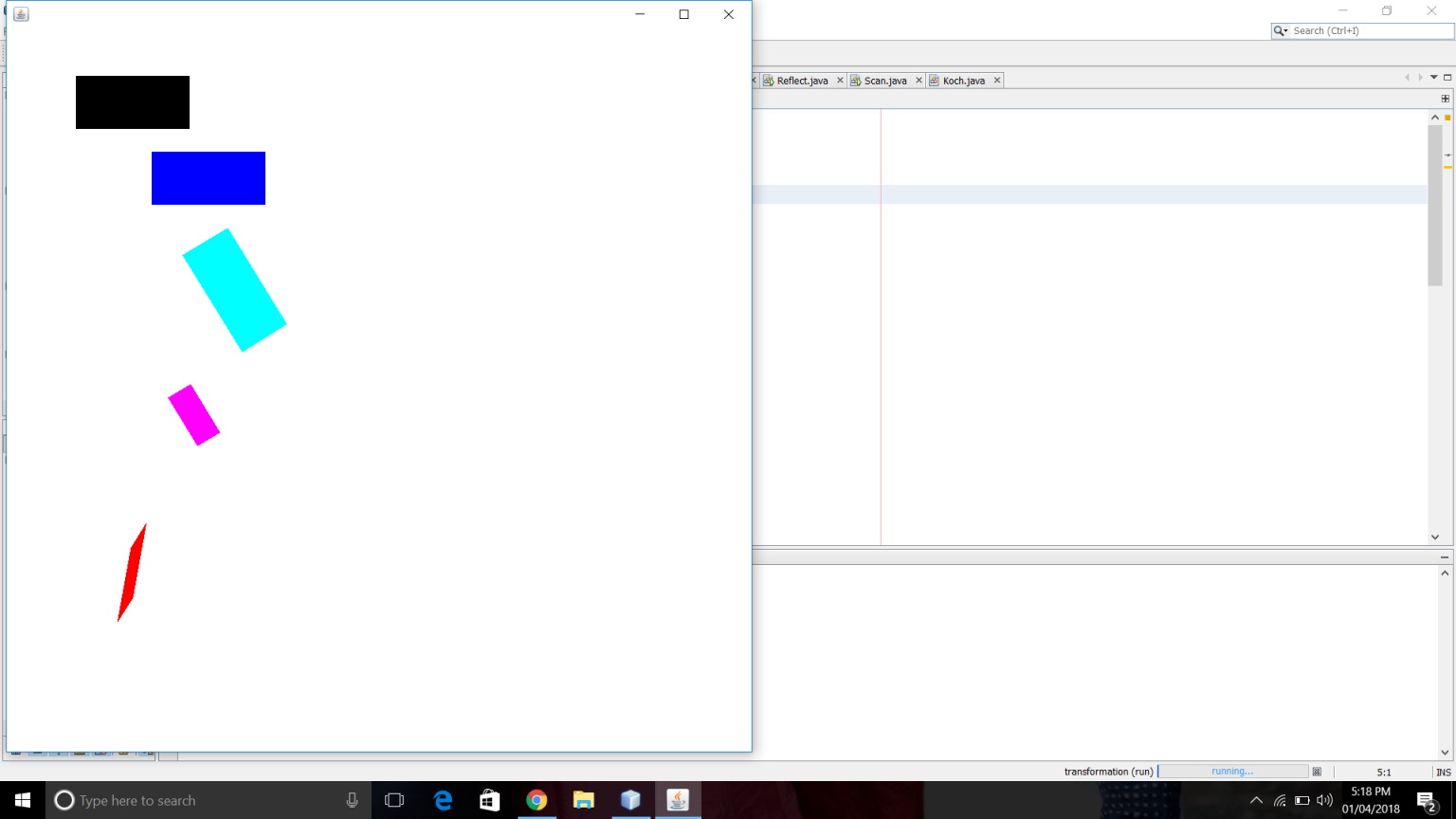
a.setVisible(true);

a.setDefaultCloseOperation(EXIT\_ON\_CLOSE);

}

}

**Output:**

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