import javax.swing.JFrame;

public class Driver01

{

public static void main(String[] args)

{

JFrame frame = new JFrame("Lab01");

frame.setSize(400, 425);

frame.setLocation(100, 50);

frame.setDefaultCloseOperation(

JFrame.EXIT\_ON\_CLOSE);

frame.setContentPane(new Panel01());

frame.setVisible(true);

}

}

import javax.swing.\*;

import java.awt.\*;

public class Panel01 extends JPanel

{

public void paintComponent(Graphics g)

{

g.setColor(Color.LIGHT\_GRAY);

g.fillRect(0, 0, 400, 400);

g.setColor(Color.GREEN.darker());

g.drawLine(0, 350, 400, 350);

g.setColor(Color.RED);

g.drawRect(100, 200, 150, 150);

g.setColor(Color.BLACK);

g.fillRect(150, 275, 50, 75);

int xPoints[] = {75, 175, 275};

int yPoints[] = {200, 150, 200};

g.drawPolygon(xPoints, yPoints, 3);

g.setColor(Color.YELLOW);

g.fillOval(300, 75, 50, 50);

g.setColor(Color.WHITE);

g.setFont(new Font("Serif",

Font.ITALIC, 25));

g.drawString("Welcome Home", 55, 60);

}

}

import javax.swing.JFrame;

public class Driver02

{

public static void main(String[] args)

{

JFrame frame = new JFrame("Lab02");

frame.setSize (250, 350);

frame.setLocation(200, 100);

frame.setDefaultCloseOperation(

JFrame.EXIT\_ON\_CLOSE);

frame.setContentPane(new Panel02());

frame.setVisible(true);

}

}

import javax.swing.\*;

import java.awt.\*;

public class Panel02 extends JPanel

{

public void paintComponent(Graphics g)

{

g.setColor(Color.RED.darker());

g.fillRect(0, 0, 350, 400);

for(int x = 14; x <= 194; x += 25)

{

g.setColor(new Color(150, 150, 0));

g.fillOval(x, 17, 27, 35);

}

for(int x = 14; x <= 194; x += 25)

{

g.setColor(new Color(150, 150, 0));

g.fillOval(x, 222, 27, 35);

}

for(int y = 46; y <= 201; y += 25)

{

g.setColor(new Color(150, 150, 0));

g.fillOval(13, y, 35, 27);

}

for(int y = 46; y <= 201; y += 25)

{

g.setColor(new Color(150, 150, 0));

g.fillOval(185, y, 35, 27);

}

ImageIcon thomas = new ImageIcon("tj.jpg");

g.drawImage(thomas.getImage(), 35, 38, 165, 195, null);

g.setFont(new Font("Monospaced",

Font.BOLD, 20));

g.setColor(Color.WHITE);

g.drawString("Our Fearless Leader", 10, 300);

}

}

import java.awt.\*;

import javax.swing.JPanel;

import java.awt.image.BufferedImage;

public class Panel03 extends JPanel

{

private BufferedImage myImage;

public Panel03()

{

final int N = 400;

myImage = new BufferedImage(N, N, BufferedImage.TYPE\_INT\_RGB);

Graphics buffer = myImage.getGraphics();

buffer.setColor(Color.BLUE);

buffer.fillRect(0, 0, N, N);

buffer.setColor(Color.YELLOW);

for(int k = 0; k <= 50; k++)

{

buffer.drawLine(N \* k / 50, 0, N, N \* k / 50);

buffer.drawLine(0, N \* k / 50, N \* k / 50, N);

buffer.drawLine(N, N \* k / 50, N - N \* k / 50, N);

buffer.drawLine(0, N \* k / 50, N - N \* k / 50, 0);

}

int x = N / 2, y = N / 2;

int x1, y1;

int size = 100;

int r1 = 60, r2 = 55;

for (int i=0; i<12; i++)

{

double r=100.;

double angle = 30. \* i/180 \* Math.PI;

double a = r \* Math.cos(angle);

double b = r \* Math.sin(angle);

int x2 = (int)(N/2 + a);

int y2 = (int)(N/2 - b);

buffer.setColor(Color.YELLOW);

buffer.drawLine(x, y, x2, y2);

}

buffer.setColor(Color.BLUE.brighter());

buffer.fillOval(x - r1, y - r1, r1 \* 2, r1 \* 2);

buffer.setColor(Color.YELLOW);

buffer.fillOval(x - r2, y - r2, r2 \* 2, r2 \* 2);

}

public void paintComponent(Graphics g)

{

g.drawImage(myImage, 0, 0, getWidth(), getHeight(), null);

}

}