// Austin Sypolt CS447

// Bar Graph Project 3

import java.awt.\*;

import java.awt.event.\*;

public class graphProject extends Frame

{ public static void main(String[] args){new graphProject();}

graphProject()

{ super("Bar Graph Program CS447");

addWindowListener(new WindowAdapter()

{public void windowClosing(WindowEvent e){System.exit(0);}});

setSize(800, 600);

add("Center", new CvGraph());

show();

}

}

class CvGraph extends Canvas

{ public void paint(Graphics g)

{

String[] categoryNames = new String[]{"Cat","Dog","Frog","Horse","Mouse", "House", "Couch", "Swordfish"};

int[] categoryValues = new int[categoryNames.length];

for (int i = 0; i<(categoryNames.length); i++){

categoryValues[i] = (int)(Math.random()\*500);

}

//String[] categoryNames = new String[]{"Cat","Dog","Frog","Horse","Mouse"};

//int[] categoryValues = new int[]{200, 40, 200, 400, 500};

//String[] categoryNames = new String[]{"Hats","Shoes","Shirts","Pants"};

//int[] categoryValues = new int[]{69, 220, 19, 309, 480};

String[] yvalues = new String[]{"0", "100", "200", "300", "400", "500"}; // range 0-500

int valueMax = 500;

g.drawLine(50, 0, 50, 500);

g.drawLine(50, 500, 575, 500);

for(int n = 0; n<=(categoryNames.length-1); n++){

int R = (int)((Math.random()\*250)+n);

int G = (int)((Math.random()\*250)+n);

int B = (int)((Math.random()\*250)+n);

Color randomColor = new Color(R, G, B);

g.setColor(randomColor);

g.fillRect(680, 20+(20\*n), 10, 10);

g.fillRect(80+((500/(categoryNames.length))\*n),valueMax-categoryValues[n], 40, categoryValues[n]);

g.setColor(Color.black);

g.drawString(categoryNames[n], 700, 30+(20\*n));

g.drawString(categoryNames[n], (100 + (500/((categoryNames.length))\*n)), 525);

g.drawLine((100 + ((500/(categoryNames.length))\*n)),500,(100 + ((500/(categoryNames.length))\*n)),510);

for(int j = 0; j<yvalues.length; j++){

g.drawLine(40,(100\*j),60,(100\*j));

g.drawString(yvalues[j], 20, 520-(100\*j));

}

}

}

}