**Requirement:** Draw a user specified graph.

**Requirement analysis**: Graph is divided into point, line, polygon and arc.

We can take the following classes from the requirement, Painter Style Canvas Shape Coordinate Point Line Polygon and Arc.

First, call canvas, you can customize the size and the background color of the canvas, call Style, you can specify the invocation styles, pen or brush, at the same time, you can specify the color and line width. Defines the properties of the coordinate and the method of returning the coordinates in the Shape. In order to separate the X and Y values of coordinates, take the class of Coordinate. Point Line and Polygon are inherited from Shape, therefore, only the method of inputting coordinates value is defined.

The following is a description of the call,

1. Draw point:

(1)var point=new graph.Point(x,y);

(2)var painter=new graph.Painter();

(3)painter.canvas=new graph.Canvas(width,height,backgroundcolor(string));

(4)painter.style=new graph.Style(“pen/brush”,”color”,linewidth);

(5)painter.drawpoint(point);

2.Draw line:

(1)var line=new graph.Line(x1,y1,x2,y2);

(2)var painter=new graph.Painter();

(3)painter.canvas=new graph.Canvas(width,height,backgroundcolor(string));

(4)painter.style=new graph.Style(“pen/brush”,”color”,linewidth);

(5)painter.drawline(line);

3.Draw polygon:

(1)var polygon=new graph.Polygon([coordinates’value]);

(2)var painter=new graph.Painter();

(3)painter.canvas=new graph.Canvas(width,height,backgroundcolor(string));

(4)painter.style=new graph.Style(“pen/brush”,”color”,linewidth);

(5)painter.drawpolygon(polygon);

4.Draw arc:

(1)var arc=new graph.Arc([x0,y0,r,anglebegin,angleend]);

(2)var painter=new graph.Painter();

(3)painter.canvas=new graph.Canvas(width,height,backgroundcolor(string));

(4)painter.style=new graph.Style(“pen/brush”,”color”,linewidth);

(5)painter.drawarc(arc);