Lab No (4)

Implement the following Classes:

4.1

```
class circle            //graphics circle
 {protected:
 int xCo, yCo;        //coordinates of center
 int radius;
 color fillcolor;      //color
 fstyle fillstyle;     //fill pattern
 public:               //sets circle attributes
 void set(int x, int y, int r, color fc, fstyle fs)
 {xCo = x;
 yCo = y;
 radius = r;
 fillcolor = fc;
 fillstyle = fs; }
 void draw()          //draws the circle
 {set_color(fillcolor);          //set color
 set_fill_style(fillstyle);       //set fill
 draw_circle(xCo, yCo, radius);    //draw solid circle } };
 int main()
  init_graphics();        //initialize graphics system
 circle c1;             //create circles
 circle c2;
 circle c3;
 //set circle attributes
 c1.set(15, 7, 5, cBLUE, X_FILL);
 c2.set(41, 12, 7, cRED, O_FILL);
 c3.set(65, 18, 4, cGREEN, MEDIUM_FILL);
 c1.draw();             //draw circles
 c2.draw();
 c3.draw();
 set_cursor_pos(1, 25);    //lower left corner
 return 0; }
```

4.2

```
class Distance              //English Distance class
 {private:
 int feet;
 float inches;
 public:
 void setdist(int ft, float in)  //set Distance to args
 { feet = ft; inches = in; }
 void getdist()          //get length from user
 {
 cout << "\nEnter feet: ";  cin >> feet;
 cout << "Enter inches: ";  cin >> inches;
 }
 void showdist()         //display distance
 { cout << feet << "\'-" << inches << '\"'; } };
 int main()
 {
 Distance dist1, dist2;       //define two lengths
 dist1.setdist(11, 6.25);     //set dist1
 dist2.getdist();             //get dist2 from user
 //display lengths
 cout << "\ndist1 = ";  dist1.showdist();
 cout << "\ndist2 = ";  dist2.showdist();
 cout << endl;
 return 0;
 }
```