

## CHAPTER V

### IMPLEMENTATION & TESTING

#### 5.1 Implementation

The program will show the input of coordinates of points. The value from the input will be proceeded to draw the lines and draw the colors.

##### 5.1.1 Drawing Lines

In this part we create a method to draw a shape on canvas by connecting point to point on certain coordinates that determined on html input form.

```
Draw(x,y,points)
{
    ctx.moveTo(x[0], y[0]);
    for(i=1; i<points; i++)
    {
        ctx.lineTo(x[i], y[i]);
    }
    ctx.lineTo(x[0].y[0]);
}
```

Method moveTo is set as a first point that determined on index-0 of array X and Y. Then do a loop to draw a path lines by connecting each points on index-i and loop it as many as amount of points. Lastly draw another path back to first point on index-0 of array X and Y.

### 5.1.2 Drawing colors

In this part we create a method to fill the shape with color. We have 2 condition for this method, if variable a equal with 5, do fill a color of a rectangle shape, else if variable a equal with 4 it do fill a color of right triangle shape.

```
FillColor(a,x,y,points)
{
    If(a==5)
    {
        For(i=1;i<y[2];i++)
        {
            Ctx.moveTo(x[0],y[0]);
            Ctx.lineTo(x[1], y[1]);
            Y[0]++;
            X[0]++;
        }
    }
}
```

The code above is the method to draw a color on rectangle shape. The mechanic of this method is draw a path from X and Y on index-0 to X and Y on index-1 as much as Y on index-2 and then Y on index-0 and Index-1 add by 1. For Triangle shape the mechanic of this method is draw a path from X and Y on index-0 to X and Y on index-1 as much as Y on index-2 and then Y on index-0 and index-1 add by 1 and X on index-1 minus by 1 and lastly get the color value that chosen by user from radio button.

## 5.2 Testing

The program has been tested by making right-angled triangle and rectangle shape. First try make a right-angled triangle shape by input 3 points, then input the coordinate on (0,0), (200,0), (0,200). Then make the rectangle shape by input 3 points, then input the coordinate on (210,0),(410,0),(410,200),(210,200). The output of program is match with the shape that manually draw.

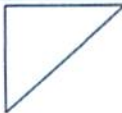



Input Titik	Nilai	Gambar Manual	Gambar Komputer	Keterangan
3 Titik	(0,0), (200,0), (0,200)			Sesuai
4 Titik	(210,0), (410,0), (410,200), (210,200)			Sesuai

Table 5.2 Table Testing