

Name - Gulnaaz

Rollno - 1121055

Course - BCA 'A' Sem - 6

Sub - Computer Graphics and Ani.

```
#include <graphic.h>
```

```
int main()
```

```
{
```

```
int gd = DETECT, gm;
```

```
initgraph(&gd, &gm, "NULL");
```

```
/* ROAD */
```

```
line(0, 200, getmaxx(), 200);
```

```
line(0, 360, getmaxx(), 360);
```

```
/* Zebra Crossing */
```

```
setcolor(WHITE);
```

```
rectangle(150, 210, 260, 230);
```

```
floodfill(152, 220, WHITE);
```

```
rectangle(150, 240, 260, 260);
```

```
floodfill(152, 241, WHITE);
```

```
rectangle(150, 270, 260, 290);
```

```
floodfill(152, 271, WHITE);
```

```
rectangle(152, 300, 260, 320);
```

```
floodfill(152, 301, WHITE);
```

```
rectangle(150, 330, 260, 350);
```

```
floodfill(152, 331, WHITE);
```

```
/* Traffic Light */
```

```
setcolor(WHITE);
```

```
rectangle(140, 200, 145, 130);
```

```
rectangle(130, 130, 155, 70);
```

```

Setcolor (RED);
Setcolor (145, 82, 6);
Floodfill (142, 82, RED);
Setcolor (YELLOW);
Circle (142, 100, 6);
Floodfill (142, 100, YELLOW);
Setcolor (GREEN);
Circle (142, 118, 6);
Floodfill (143, 118, GREEN);
Setcolor (WHITE);
Rectangle (150, 180, 250, 300);
Rectangle (250, 180, 420, 300);
Rectangle (180, 250, 220, 300);
Line (200, 100, 150, 180);
Line (200, 100, 250, 180);
Line (200, 100, 370, 100);
Line (370, 100, 420, 180);
Setcolor (BROWN);
Floodfill (152, 182, WHITE);
Floodfill (252, 182, WHITE);
Setcolor (LIGHTRED);
Floodfill (200, 105, WHITE);
Floodfill (210, 105, WHITE);
getch();
closegraph();
return ();

```

}



Name - Gulnaaz

Course - BCA(A) Sem-6

Roll - 1121055

Sub - Computer Graphics

```
#include <graphic.h>
```

```
#include <conio.h>
```

```
#include <stdio.h>
```

```
void main()
```

```
{  
    int gd = DETECT, gm, i;
```

```
    float x, y, dx, dy, steps;
```

```
    int x0, x1, y0, y1;
```

```
    initgraph(&gd, &gm, "C:\\TC\\BGI");
```

```
    setbkcolor(WHITE);
```

```
    x0 = 100, y0 = 200, x1 = 500, y1 = 300;
```

```
    dx = (float)(x1 - x0);
```

```
    dy = (float)(y1 - y0);
```

```
    if(dx >= dy)
```

```
    {
```

```
        steps = dx;
```

```
    }
```

```
    else
```

```
    {
```

```
        steps = dy;
```

```
    }
```

```
    dx = dx / steps;
```

```
    dy = dy / steps;
```

```
    x = x0;
```

```
    y = y0;
```

```
    i = 1;
```

```

while (i <= steps)
{
    Putpixel(x, y, RED);
    x += dx;
    y += dy;
    i = i + 1;
}
getch();
close graphwin;
}

```

Algo:-

- Step 1: Start
- Step 2: Declare $x_1, y_1, x_2, y_2, dx, dy, x, y$ as integer variables
- Step 3: Enter value of x_1, y_1, x_2, y_2 .
- Step 4: Calculate $dx = x_2 - x_1$
- Step 5: calculate $dy = y_2 - y_1$
- Step 6: if $ABS(dx) > ABS(dy)$
 Then $step = abs(dx)$
 else
- Step 7: $xinc = dx / step$
 $yinc = dy / step$
 assign $x = x_1$
 assign $y = y_1$
- Step 8: Set pixel (x, y)
- Step 9: $x = x + xinc$
 $y = y + yinc$
 Set pixels ($Round(x), Round(y)$)

step 10; Repeat step 9 until $x = x_2$

step 11: stop

