

ABHAS BHATT

BCA 4A

1121001

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Animation and graphics

Q3

Ans #include <graphics.h>

int main ()

{
int gd = ~~DETECT~~ DETECT, gm;

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

Line (0, 200, getmaxx(), 200);

Line (0, 360, getmaxx(), 360);

Setcolor (WHITE);

rectangle (140, 200, 145, 130)

Setcolor (RED);

Circle (142, 82, 6);

fill (142, 82, RED);

Setcolor (YELLOW);

Circle (142, 100, 6);

fill (142, 100, YELLOW);

Setcolor (GREEN);

Circle (142, 118, 6);

fill (142, 118, GREEN);

Setcolor (WHITE);

rectangle (150, 180, 150, 300)

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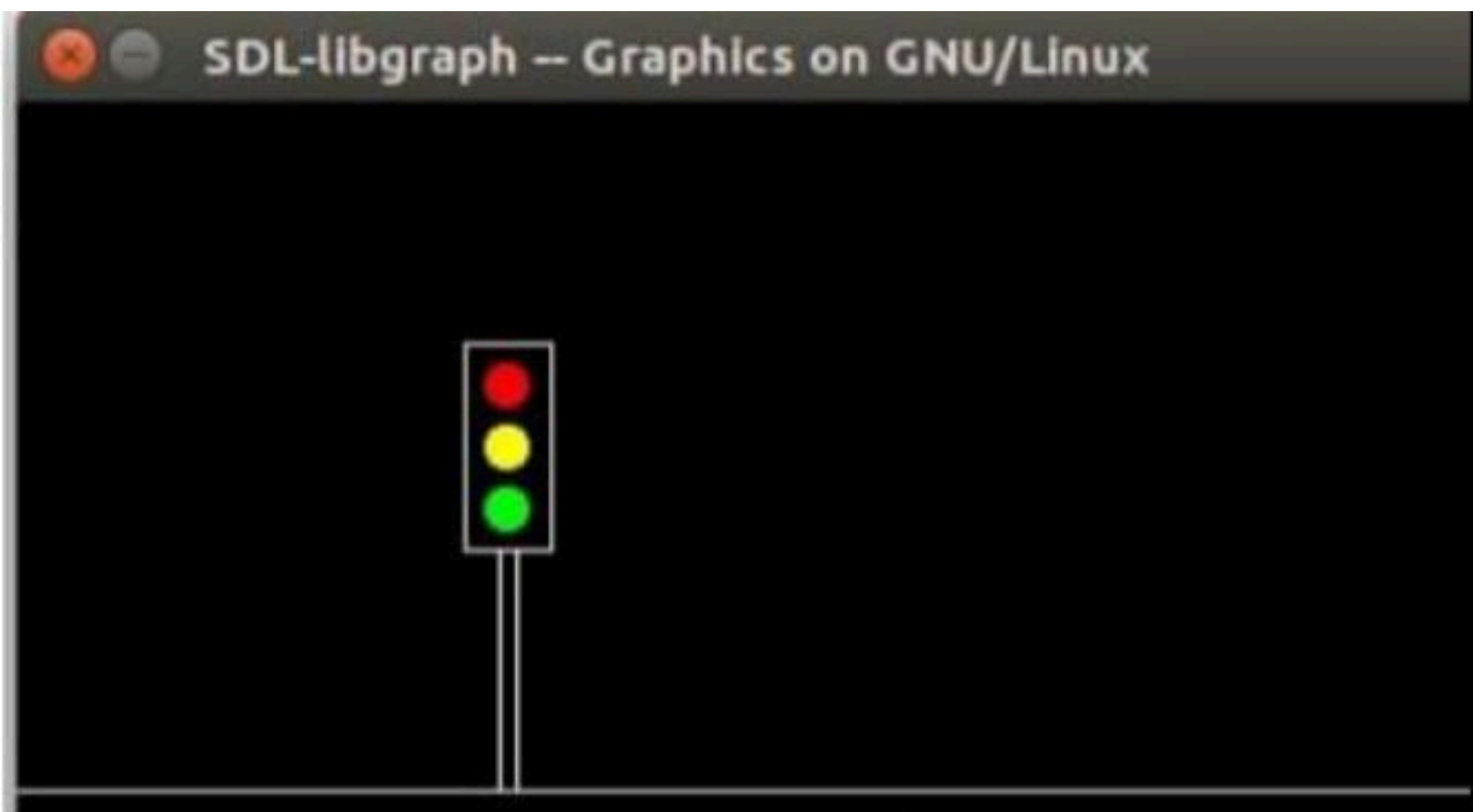
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Animation and graphics

Q3

Ans 3

```
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);  
  
FillColor (152, 182, WHITE);  
FillColor (252, 182, WHITE);  
  
SetColor (LIGHTRED);
```



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Animation and graphics

Q1

Ans: DDA Algo

Step 1:- Start

Step 2:- DECLARE x_1, y_1, dx, x As integer like
 x_2, y_2, dy, y

Step 3:- Enter value x_1, y_1, x_2, y_2

Step 4:- Calculate $dx = x_2 - x_1$
 $dy = y_2 - y_1$

Step 5:- if $ABS(dx) > ABS(dy)$ Then Step = ~~1~~ $abs(dx)$
ELSE Step = $abs(dy)$

Step 6:- $x_{inc} = \frac{dx}{Step}$, $y_{inc} = \frac{dy}{Step}$
Assign $x = x_1$, Assign $y = y_1$

Step 7:- Set pixel (x, y)

Step 8:- $y = y + y_{inc}$ Set pixels $(Round(x), Round(y))$
 $x = x + x_{inc}$

Step 9:- Repeat Step 9 until $x = x_2$

Step 10:- End

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Animation and graphics

Q1

Ans) Program

```
#include <graphics.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)
```

```
    {
        step = dx;
```

```
    }
    else
```

```
    {
        step = dy;
```

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

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

```
    x = x0;
```

```
    y = y0;
```

```
    i = 1;
```

```
    while (i <= steps)
```

```
    {
```

```
        putpixel(x, y, RED);
```

```
        x += dx;
```

```
        y += dy;
```

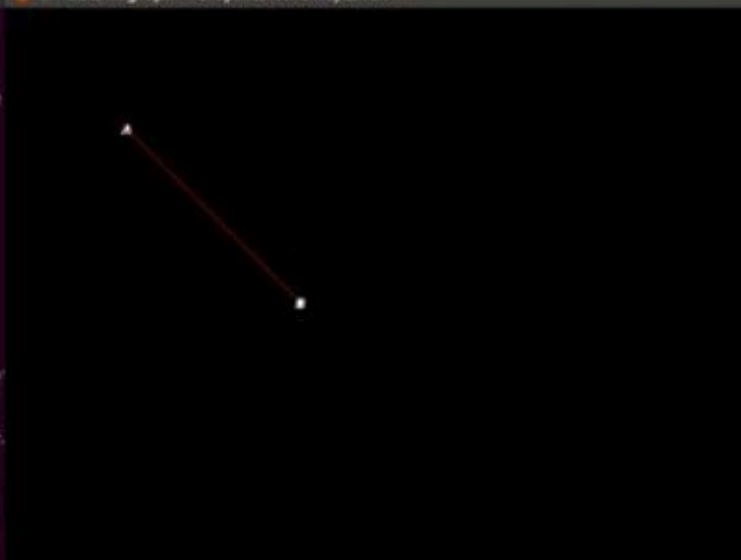
```
        i = i + 1;
```

```
    }
    getch();
```

```
    closegraph();
```

```
}
```

```
admin@lab6-pc: ~  
(base) admin@lab6-pc:~$ touch dda.c  
(base) admin@lab6-pc:~$ gedit dda.c  
(base) admin@lab6-pc:~$ gcc dda.c -lgraph -o dda  
dda.c: In function 'main':  
dda.c:36:16: error: request for member 'rou' in something not a structure  
on  
    putpixel(rou(x).rou(y),RED);  
                ^  
dda.c:36:1: error: too few arguments to function 'putpixel'  
putpixel(rou(x).rou(y),RED);  
^  
In file included from dda.c:2:0:  
/usr/local/include/graphics.h:72:6: note: declared here  
void putpixel(int x, int y, int color);  
^  
(base) admin@lab6-pc:~$ gcc dda.c -lgraph -o dda  
(base) admin@lab6-pc:~$ ./dda  
[xcb] Unknown sequence number while processing queue  
[xcb] Most likely this is a multi-threaded client and XInitThreads has not  
called  
[xcb] Aborting, sorry about that.  
dda: ../../src/xcb_io.c:274: poll_for_event: Assertion '!xcb_xlib_threads_  
ce_lost' failed.
```



Test.java

a.out

Overload.class

Untitled Document

Test.class