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Course :- BCA (6th)

Date :- 16/06/2021

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Section :- A

Question - 1

DDA Algorithm

Step 1: Start Algorithm

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: $x_{inc} = dx / step$

$y_{inc} = dy / step$

assign $x = x_1$

assign $y = y_1$

Step 8: Set pixel (x, y)

Step 9: $x = x + x_{inc}$

$y = y + y_{inc}$

Set pixel (Round(x), Round(y))

Step 10: Repeat step 9 until $x = x_2$

Step 11: End Algorithm

DDA 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, "");
```

```
    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();

closegraph();

}

```

(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:34:18: error: request for member 'row' in something not a structure
      putpixel(row(x).row(y),RED);
                  ^
dda.c:34:11: error: too few arguments to function 'putpixel'
      putpixel(row(x).row(y),RED);
      ^
In file included from dda.c:2:8:
/usr/local/include/graphics.h:72:8: 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
[acb] unknown sequence number while processing queue
[acb] most likely this is a multi-threaded client and xInitThreads has not
called
[acb] Aborting, sorry about that.
dda: ../../src/acb_lo.c:274: poll_for_event: Assertion 'acb_xlib_threads
is_lost' failed.

```

Test.java



a.txt



Overload.class



Untitled Document



Test.class