

The background of the slide shows a group of students, mostly of South Asian descent, gathered around a table. They appear to be working on a project or experiment. A very bright, intense light source is visible on the table, possibly a laser or a powerful lamp, creating a strong glare and illuminating the scene. The students are looking down at the table, focused on their work. The overall atmosphere is one of collaborative learning and scientific inquiry.

# C Graphics Function

## Brief Descriptions for C Graphics

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# graphics.h function

putpixel()

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putpixel()

## Syntax:

```
void putpixel(int x, int y, enum color);
```

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```
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```

This function will put a pixel at the given coordinates by the color specified.

# graphics.h function

putpixel()

## Syntax:

```
void putpixel(int x, int y, enum color);
```

This function will put a pixel at the given coordinates by the color specified.

Now, take a color form the *enum* list.

```
enum colors { BLACK, BLUE, GREEN, CYAN, RED, MAGENTA,  
BROWN, LIGHTGRAY, DARKGRAY, LIGHTBLUE, LIGHTGREEN,  
LIGHTCYAN, LIGHTRED, LIGHTMAGENTA, YELLOW, WHITE };
```

Hello

# The delay() function

No subtitle

# The delay() function

No subtitle

## Syntax:

```
void delay(int milisecond);
```

# The delay() function

No subtitle

## Syntax:

```
void delay(int milisecond);
```

## Description

Delay/Pause program for miliseconds. (1000/1k miliseconds = 1 second)



# Draw a line using putpixel function: Animated

No subtitle

# Draw a line using putpixel function: Animated

No subtitle

```
void drawAnimatedLine()
{
    int start, end;
    printf("Starting point: ");
    scanf("%d", &start);
    printf("Ending point: ");
    scanf("%d", &end);
    while (start <= end)
    {
        putpixel(start++, 250, GREEN);
        delay(5);
    }
}
```

Listing 2: Animated Line

# Rectangle Anime

Drawing an rectangle by putpixel() and delay() function

# Rectangle Anime

Drawing an rectangle by putpixel() and delay() function

```
void drawAnimatedRectangleFromMid() {
    int midX, midY, totalHeight, totalWidth, i, j;

    printf("Mid point-X: "); scanf("%d", &midX);
    printf("Mid point-Y: "); scanf("%d", &midY);
    printf("Total Width: "); scanf("%d", &totalWidth);
    printf("Total Height: "); scanf("%d", &totalHeight);

    // Drawing up line.
    i = midX, j = midX;
    while (i >= midX - totalWidth / 2) {
        putpixel(i--, midY, GREEN); putpixel(j++, midY, GREEN);
        delay(9);
    }

    // Drawing side lines.
    i = midY, j = midY;
    while (i <= midY + totalHeight) {
        putpixel(midX - totalWidth / 2, i++, GREEN); putpixel(midX + totalWidth / 2, j++, GREEN);
        delay(9);
    }

    // Drawing bottom line.
    i = midX - totalWidth / 2, j = midX + totalWidth / 2;
    while (i <= midX) {
        putpixel(i++, midY + totalHeight, GREEN); putpixel(j--, midY + totalHeight, GREEN);
        delay(9);
    }

    /* Over */
}
```

# graphics.h function

line()

# graphics.h function

line()

## Syntax:

```
void line(int x1, int y1, int x2, int y2);
```

# graphics.h function

line()

## Syntax:

```
void line(int x1, int y1, int x2, int y2);
```

## Description

Will draw a straight line from  $(x1, y1)$  to  $(x2, y2)$ .

# graphics.h function

setcolor()



# graphics.h function

setcolor()

## Syntax:

```
void setcolor(enum color);
```

# graphics.h function

setcolor()

## Syntax:

```
void setcolor(enum color);
```

## Description

After this statement, all graphical elements will be colored as defined in the function.

# graphics.h function

rectangle()

# graphics.h function

## rectangle()

### Syntax:

```
void rectangle(int left, int top, int right, int bottom);
```

# graphics.h function

rectangle()

## Syntax:

```
void rectangle(int left, int top, int right, int bottom);
```

## Description

Give the coordinate of top-left(left, top) and bottom-right(right, bottom) corner. Then a rectangle will be created.

# Draw Rectangle Shape Bar

Animated Rectangle Bar

# Draw Rectangle Shape Bar

## Animated Rectangle Bar

```
void barTypeRectangleAnimated()
{
    int left, top, right, bottom;
    printf(" Left: ");
    scanf("%d", &left);
    printf(" Top: ");
    scanf("%d", &top);
    printf(" Right: ");
    scanf("%d", &right);
    printf(" Bottom: ");
    scanf("%d", &bottom);

    while (left < right - 5 && top < bottom - 5)
    {
        rectangle(left++, top++, right--, bottom--);
        delay(9);
    }
}
```

Listing 4: Filling a rectangle with rectangle

# Any Font Size

Still not arrived!

## Description

You can give any size of a font as you want by using *anyfontsize* package. And then the command.