



EXPERIMENT 10

COMPUTER GRAPICS AND MULTIMEDIA

Aim

Write a program to draw a car using inbuild graphics function and translate it from bottom left corner to right bottom corner of screen (Animation).

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EXPERIMENT - 10

AIM:

Write a program to draw a car using inbuilt graphics function and translate it from bottom left corner to right bottom corner of screen (animation)

THEORY:

Making a car in computer graphics using various shapes and moving it on the screen.

Function	Description
initgraph	It initializes the graphics system by loading the passed graphics driver then changing the system into graphics mode.
getmaxx	It returns the maximum X coordinate in current graphics mode and driver.
getmaxy	It returns the maximum X coordinate in current graphics mode and driver.
setcolor	It changes the current drawing colour. Default colour is white. Each color is assigned a number, like BLACK is 0 and RED is 4. Here we are using colour constants defined inside graphics.h header file.
setfillstyle	It sets the current fill pattern and fill color.
circle	It draws a circle with radius r and centre at (x, y).
line	It draws a straight line between two points on screen.
arc	It draws a circular arc from start angle till end angle.
floodfill	It is used to fill a closed area with current fill pattern and fill color. It takes any point inside closed area and color of the boundary as input.

Function	Description
cleardevice	It clears the screen, and sets current position to (0, 0).
delay	It is used to suspend execution of a program for a M milliseconds.
closegraph	It unloads the graphics drivers and sets the screen back to text mode.

SOURCE CODE:

```
#include <stdio.h>

#include <graphics.h>

#include <conio.h>

#include <dos.h>

int main() {

    int i, x, midy;

    initwindow(800, 800);

    // get coordinates of screen

    x = getmaxx();

    midy = getmaxy()/2;

    for (i=0; i < x-150; i=i+5) {

        cleardevice();// clearing screen
```

```
setcolor(WHITE)

line(0, midy + 37, x, midy + 37); // road

    //carbody

    setcolor(BLUE);

line(i, midy + 23, i, midy);

line(i, midy, 40 + i, midy - 20);

line(40 + i, midy - 20, 80 + i, midy - 20);

line(80 + i, midy - 20, 100 + i, midy);

line(100 + i, midy, 120 + i, midy);

line(120 + i, midy, 120 + i, midy + 23);

line(0 + i, midy + 23, 18 + i, midy + 23);

arc(30 + i, midy + 23, 0, 180, 12);

line(42 + i, midy + 23, 78 + i, midy + 23);

arc(90 + i, midy + 23, 0, 180, 12);

line(102 + i, midy + 23, 120 + i, midy + 23);

line(28 + i, midy, 43 + i, midy - 15);

line(43 + i, midy - 15, 57 + i, midy - 15);

line(57 + i, midy - 15, 57 + i, midy);

line(57 + i, midy, 28 + i, midy);

line(62 + i, midy - 15, 77 + i, midy - 15);

line(77 + i, midy - 15, 92 + i, midy);

line(92 + i, midy, 62 + i, midy);
```

```
line(62 + i, midy, 62 + i, midy - 15);

//wheels

setcolor(RED);

circle(30 + i, midy + 25, 9);

circle(90 + i, midy + 25, 9);

delay(100);

}

getch();

closegraph();

return 0;

}
```

OUTPUT:



