MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

GOVERNMENT POLYTECHNIC, DHULE

COMPUTER GRAPHICS

A Project Report on

Create Moving Bus In Rain .

In the partial fulfilment of the Diploma in Computer Engineering for the academic Year 2022-23

Submitted to

S. M. D. R. GOVERNMENT POLYTECHNIC, DHULE

Submitted by

Roll No.	Name of the Student	Class
237	**More Dishank Jaywant**	**CO 3I**
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MAHARASHTRA STATE BOARD OF TECHNICAL EDUCATION

CERTIFICATE

This is to certify that **Group of students** of **Thired** semester of Diploma in **Computer Engineering** of Institute **S. M. D. R. Government Polytechnic, Dhule (0017)** has completed the Micro Project satisfactorily in the Subject **CGR (22318)** for the **Academic Year 2022-23** as prescribed in the curriculum.

Place: Dhule Enrollment No:

Date: Exam Seat No:

Subject Teacher Head of the Department
Principal

Institution Seal of

EVALUATION SHEET FOR MICRO PROJECT

(Academic Year: 2021-22)

Name of the Student:

Roll No :-

Course: Computer Graphic (CGR) Course Code: 22318

Title:- Create A Moving Bus In Rain

Roll No	Student name	Marks out of 06 for individual performance	Marks out of 04 for oral presentation	Total out of 10
237	More Dishank Jaywant			
251	Sonawane Vishvas Manish			
260	Pawar Bhagwantrao Tushar			
244	Dhangar Ganesh Pushpak			

A – MICROPROJECT PROPOSAL

Moving Bus in Rain .

1.INTRODUCTION :-

Computer graphics deals with generating images with the aid of computers. Today, computer graphics is a core technology in digital photography, film, video games, cell phone and computer displays, and many specialized applications. It is a vast and recently developed area of computer science.
Computer graphics are used for user interface design, rendering, ray tracing, geometry processing, computer animation, vector graphics, 3D modeling, GPU design, processing, computational photography, computational geometry, computer vision, and many more.

In this project, we will be creating a Moving Bus in rain by using some basic shapes (functions) in computer graphics which are already defined in the ‘ <graphics.h> ’ header file like line, ellipse, rectangle, circle, pieslice, settextstyle, outtextxy, etc

1.0 AIM OF PROJECT :-

To create a Moving Bus in Rain.

2.0 INTENDED COURSE OUTCOMES :-

2.1 In this project we will implement moving bus in rain by using some basic functions that are already defined in the ‘ <graphics.h> ’ header file in C.

2.2 We will learn how the co-ordinates system is, and how the other function works.

3. LITERATURE REVIEW :-

In 1959, Douglas T. Ross innovated again while working at MIT on transforming mathematic statements into computer-generated 3D machine tool vectors by taking the opportunity to create a display scope image of a Disney cartoon character.

The 1980s began to see the modernization and commercialization of computer graphics. The number of computer graphics developers increased significantly.

In the 1990s' the emergence of 3D modeling on a mass scale and an impressive rise in the quality of CGI generally.

In the 2010s, CGI has been nearly very common in the video, pre-rendered graphics are nearly scientifically photo-realistic, and real-time graphics on a suitably high-end system may simulate photo-realism to the untrained eye.

4. PROPOSED METHODOLOGY :-

For displaying a Moving Bus in the Rain, the methodology can be as follows :

- ➢ In this project, we don't need any Input from the user.
- ➢ There will be no operations because we don't need any Input from the user.
- ➢ We will directly show the Moving Bus in the Rain on the user's screen.

5.RESOURCES REQUIRED :-4

Sr No.	Name of Resource	Specification
1	Hardware: Computer System	Computer (i3-i-5 preferable), RAM minimum 2GB and onwards.
2	Operating System	Windows 7 or later version.
3	Software	Dev C/C++ version or any other IDE.

5.0 Action Plan

Sr No.	Details of Activity	Start Date	Finished Date	Name of Responsible Team Members
1	Information Collection			
2	Design			
3	Implementation			
4	Report Making			

B – Microproject Report

program:-

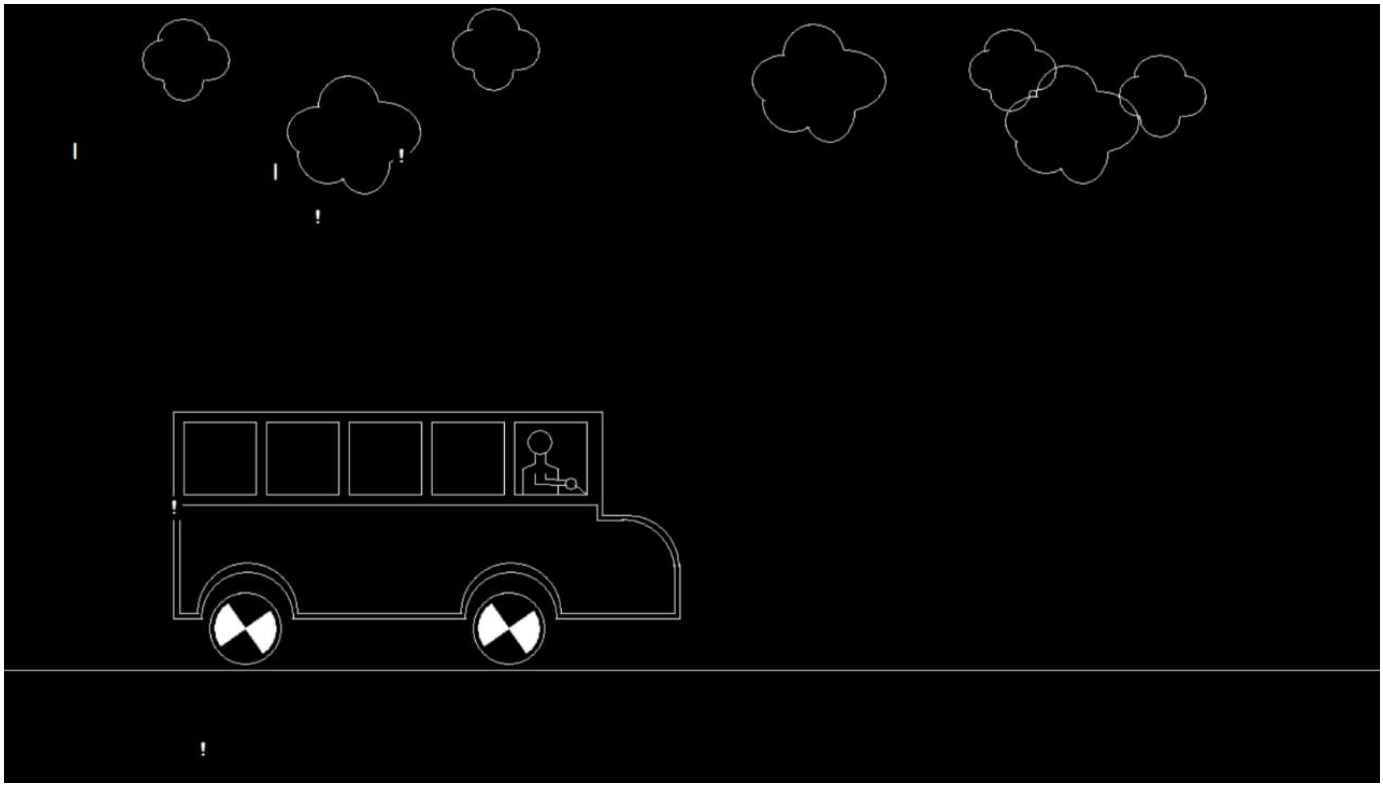
```
 #include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<graphics.h>
#include<dos.h>
#include<time.h>

int main ( )
{
        int i, x=0, y=0;
   initwindow(1366,768);


        for(i=0;i<1400;i++)
        {

        cleardevice();

        /* Road */
        line(0,650,1366,650);

        /* Clouds */
        ellipse(350+150-i,105,10,180,30,30);
                ellipse(380+150-i,130,285,90,40,30);
                ellipse(365+150-i,160,210,360,25,30);
                ellipse(330+150-i,150,180,300,30,30);
                ellipse(320+150-i,130,85,235,30,25);


                ellipse(140+200-i,50-10,0,180,25,20);
                ellipse(165+200-i,70-10,260,90,20,20);
                ellipse(140+200-i,90-10,180,360,20,20);
                ellipse(120+200-i,70-10,90,270,20,20);


                ellipse(140+500-i,50-20,0,180,25,20);
                ellipse(165+500-i,70-20,260,90,20,20);
                ellipse(140+500-i,90-20,180,360,20,20);
                ellipse(120+500-i,70-20,90,270,20,20);

                ellipse(350+600-i,105-50,10,180,30,30);
                ellipse(380+600-i,130-50,285,90,40,30);
                ellipse(365+600-i,160-50,210,360,25,30);
```

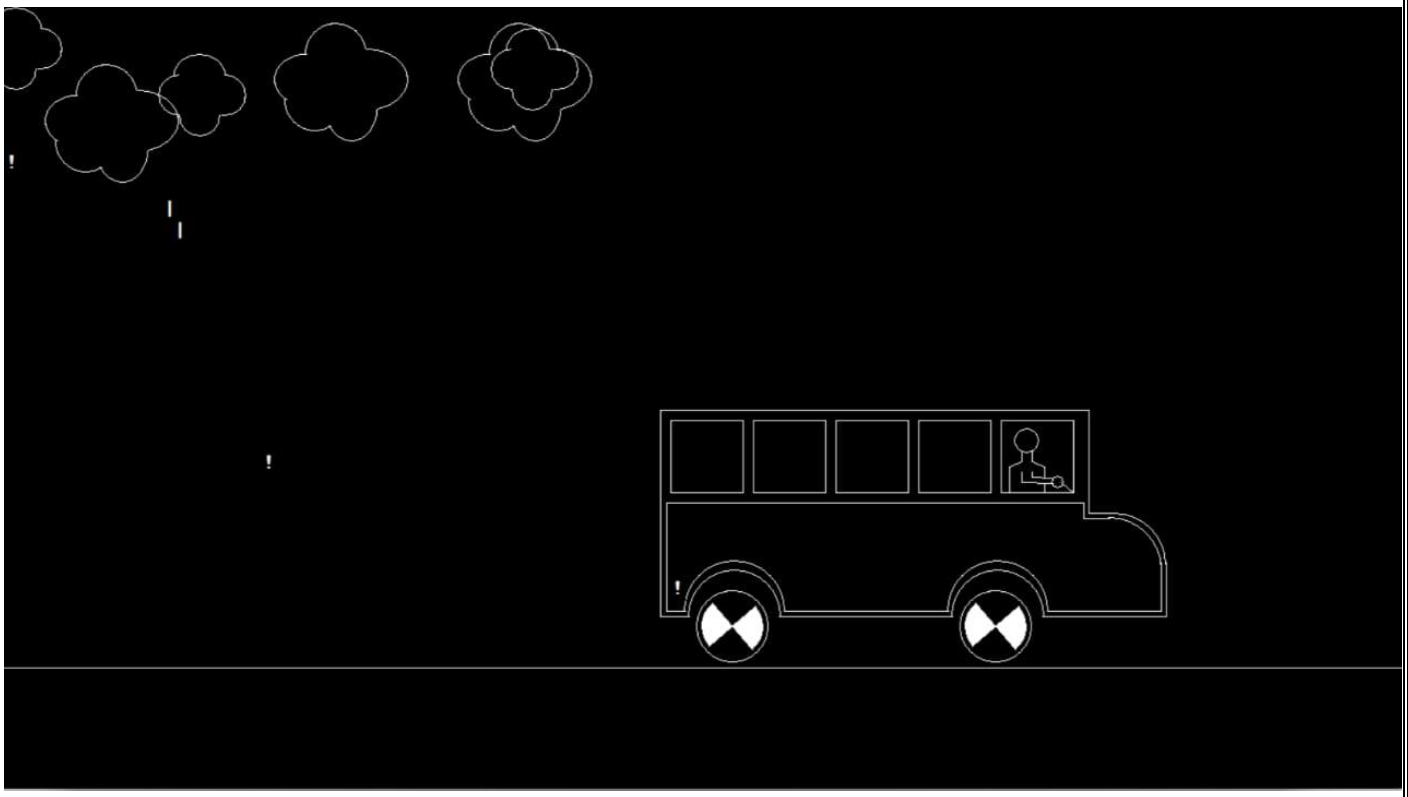
```
ellipse(330+600-i,150-50,180,300,30,30);
ellipse(320+600-i,130-50,85,235,30,25);

 ellipse(140+1000-i,50,0,180,25,20);
ellipse(165+1000-i,70,260,90,20,20);
ellipse(140+1000-i,90,180,360,20,20);
ellipse(120+1000-i,70,90,270,20,20);


 ellipse(350+1000-(2*i),105-10,10,180,30,30);
ellipse(380+1000-(2*i),130-10,285,90,40,30);
ellipse(365+1000-(2*i),160-10,210,360,25,30);
ellipse(330+1000-(2*i),150-10,180,300,30,30);
ellipse(320+1000-(2*i),130-10,85,235,30,25);

ellipse(140+1300-(2*i),50+25,0,180,25,20);
ellipse(165+1300-(2*i),70+25,260,90,20,20);
ellipse(140+1300-(2*i),90+25,180,360,20,20);
ellipse(120+1300-(2*i),70+25,90,270,20,20);

ellipse(350+1400-(2*i),105-50,10,180,30,30);
ellipse(380+1400-(2*i),130-50,285,90,40,30);
ellipse(365+1400-(2*i),160-50,210,360,25,30);
ellipse(330+1400-(2*i),150-50,180,300,30,30);
ellipse(320+1400-(2*i),130-50,85,235,30,25);


        /* Bus body */

 line(20+i,400,435+i,400); // Top

line(20+i,400,20+i,600); // Back
line(26+i,490,26+i,595); // Inner Back

line(435+i,400,435+i,500);//Front Side

line(430+i,490,430+i,505); // Inner Front Vertical

line(435+i,500,460+i,500); // Front to Bonnet

arc(460+i,550,360,90,50);//Bonnet
arc(455+i,555,360,90,51);//Inner Bonnet
line(430+i,505,455+i,505); // Inner Bonnet Horizontal

//Windows
rectangle(30+i,410,100+i,480); // LHS 1st Window


rectangle(110+i,410,180+i,480); // LHS 2nd Window
```

```
rectangle(190+i,410,260+i,480); // LHS 3rd Window
rectangle(270+i,410,340+i,480); // LHS 4th Window
rectangle(350+i,410,420+i,480);   // Driver Window

line(26+i,490,430+i,490); // Below Windows Inner line


/* Driver Window View */
                                  //Driver
circle(375+i,430,12);        // Head

line(370+i,440,370+i,450); //LHS Neck
line(380+i,440,380+i,450); //RHS Neck

line(370+i,450,358+i,455); //LHS Shoulder
line(380+i,450,392+i,455); //RHS Shoulder

line(392+i,455,392+i,465); //RHS Side (Up-wards)
line(392+i,472,392+i,480); //RHS Side (Down-wards)

line(358+i,455,358+i,480); //LHS Side

line(370+i,460,370+i,470); //Hand LHS
line(380+i,460,380+i,465); //Hand RHS

line(370+i,470,400+i,471); //ForeHand LHS
line(380+i,465,400+i,466); //ForeHand RHS

// Strearing Handle
circle(443+i-38,470,6); // Strearing Wheel
line(420+i,480,408+i,470); //Handle



/* Lower Body */
line(20+i,600,48+i,600); // Back to Mud Gurad
line(26+i,595,44+i,595); // Inner Back to Mud Gurad

arc(92+i,600,0,180,45); // 1st Mud Guard
arc(92+i,595,0,180,49);//Inner Mud Guard

line(135+i,600,303+i,600); // Mud Guard Join
line(140+i,595,299+i,595); // Inner Mud Guard Join

arc(347+i,600,0,180,45); // 2nd Mud Guard
arc(347+i,595,0,180,49);//Inner Mud Guard

line(390+i,600,510+i,600); // Mud Gurad to Bonnet
line(395+i,595,505+i,595); // Inner Mud Gurad to Bonnet
```

```
                line(510+i,600,510+i,548); // Below Bonnet Front
                line(505+i,595,505+i,548); // Inner Below Bonnet Front


                /* Tyres */
                circle(55+i+35,610,35); // LHS
                pieslice(55+i+35,610,0-(5*i),90-(5*i),30);
                pieslice(55+i+35,610,180-(5*i),270-(5*i),30);

        circle(310+i+35,610,35);// RHS
        pieslice(310+i+35,610,0-(5*i),90-(5*i),30);
                pieslice(310+i+35,610,180-(5*i),270-(5*i),30);


                /* Rain */
                settextstyle(10,0,3);

                outtextxy(x+(rand()%200) +1,y+(rand()%200) +1,"|");
        outtextxy(x+(rand()%400) +1,y+(rand()%400) +1,"!");
        outtextxy(x+(rand()%600) +1,y+(rand()%600) +1,"|");
        delay(1);
        outtextxy(x+(rand()%800) +1,y+(rand()%800) +1,"!");
        outtextxy(x+(rand()%1000) +1,y+(rand()%1000) +1,"!");
                outtextxy(x+(rand()%1200) +1,y+(rand()%1200) +1,"!");

        delay(1);

        }

    getch() ;

    return 0 ;
}
```

Program output:-





Program outcome:-

1. Actual Resources Used
2. Skills Developed
3. Application of Microproject
4. Area of future improvement