A

PROJECT REPORT

ON

"STICKMAN IN MANSOON"

DIPLOMA IN COMPUTER ENGINEERING

BY

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Introduction:

Computer has become powerful tool for the rapid and economical production of pictures. Computer Graphics remains one the most exciting and rapidly growing fields .

Computer Graphics is used where a set of images needs to be manipulated or the creation of the image in the form of pixels and is drawn on the computer.

Computer Graphics can be used in digital photography, film, entertainment, electronic gadgets, and all other core technologies which are required. It is a vast subject and area in the field of computer science.

Computer Graphics can be used in UI design, rendering, geometric objects, animation, and many more. In most areas, computer graphics is an abbreviation of CG. There are several tools used for the implementation of Computer Graphics.

The basic is the header file in Turbo-C, Unity for advanced and even OpenGL can be used for its Implementation

SOURCE CODE:

```
#include <conio.h>
#include <graphics.h>
#include <stdio.h>
#define ScreenWidth getmaxx()
#define ScreenHeight getmaxy()
#define GroundY ScreenHeight * 0.75
int ldisp = 0;
void hut()
{
setcolor(WHITE);
rectangle(150, 180, 250, 300);
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);
setfillstyle(SOLID_FILL, BROWN);
floodfill(152, 182, WHITE);
floodfill(252, 182, WHITE);
setfillstyle(SLASH_FILL, BLUE);
floodfill(182, 252, WHITE);
setfillstyle(HATCH_FILL, GREEN);
floodfill(200, 105, WHITE);
floodfill(210, 105, WHITE);
}

// Drawing a Man with Umbrella
void DrawManAndUmbrella(int x,int ldisp)
{
circle(x, GroundY - 90, 10);
line(x, GroundY - 80, x,GroundY - 30);
line(x, GroundY - 70,x + 10, GroundY - 60);
line(x, GroundY - 65, x + 10,GroundY - 55);
line(x + 10, GroundY - 60,x + 20, GroundY - 70);
line(x + 10, GroundY - 55,x + 20, GroundY - 70);
line(x, GroundY - 30,x + ldisp, GroundY);
line(x, GroundY - 30,x - ldisp, GroundY);
pieslice(x + 20, GroundY - 120,0, 180, 40);
```

```
line(x + 20, GroundY - 120,x + 20, GroundY - 70);
}
// Creating the Rainfall
void Rain(int x)
{
int i, rx, ry;
for (i = 0; i < 400; i++)
{
rx = rand() % ScreenWidth;
ry = rand() % ScreenHeight;
if (ry < GroundY - 4)
{
if (ry < GroundY - 120 || (ry > GroundY - 120 &&(rx < x - 20
||rx > x + 60)))
line(rx, ry,rx + 0.5, ry + 4);
}
}
}

//Creating Raibow
void rainbow()
{
int x, y, i;
circle(ScreenWidth - 100,50, 30);
setfillstyle(SOLID_FILL,YELLOW);
floodfill(ScreenWidth - 100,50, WHITE);
ldisp = (ldisp + 2) % 20;
DrawManAndUmbrella(x, ldisp);
hut();
x = getmaxx() / 5;
y = getmaxy() / 5;
for (i = 30; i < 100; i++)
{
// for animation
delay(50);
setcolor(i / 10);
arc(x, y, 0, 180, i - 10);
}
getch();
}
void main()
```

```
{
int gd = DETECT, gm, x = 0;
initgraph(&gd, &gm,"C:\\TurboC3\\BGI");
// executes till any key
while (!kbhit())
{
hut();
circle(ScreenWidth - 100,50, 30);
setfillstyle(SOLID_FILL,YELLOW);

 floodfill(ScreenWidth - 100,50, WHITE);
line(0, GroundY, ScreenWidth,GroundY);
Rain(x);
ldisp = (ldisp + 2) % 20;
DrawManAndUmbrella(x, ldisp);
delay(20);
cleardevice();
x = (x + 2) % ScreenWidth;
}
// if the key is pressed the rain stops, rainbow appears
ldisp = (ldisp + 2) % 20;
DrawManAndUmbrella(x, ldisp);
rainbow();
getch();
}
```

OUTPUT:

CONCLUSION:

Computer graphics will continue to get more sophisticated. Their 3-D photorealistic capabilities and ability to predict changes over time have revolutionized product development and marketing, as well as scientific research and education. They are responsible for superior special effects in movies and on television. Many newspapers and magazines use only computer-generated graphics. They add an aesthetic and emotional dimension to text. Computer graphics affect everyone's life in almost every aspect every day.

REFERENCES:

- REFERENCE LINKS:-

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