DEPARTMENT OF COMPUTER ENGINEERING

SIES GRADUATE SCHOOL OF TECHNOLOGY

NERUL, NAVI MUMBAI – 400706

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CG MINI PROJECT REPORT

on

"BATTERY CHARGING ANIMATION"

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ABSTRACT:

In this project we have build a Graphical Animation of a battery charging process using COMPUTER GRAPHICS and C as our base coding language.

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. A great deal of specialized hardware and software has been developed, with the displays of most devices being driven by computer graphics hardware. It is a vast and recently developed area of computer science.

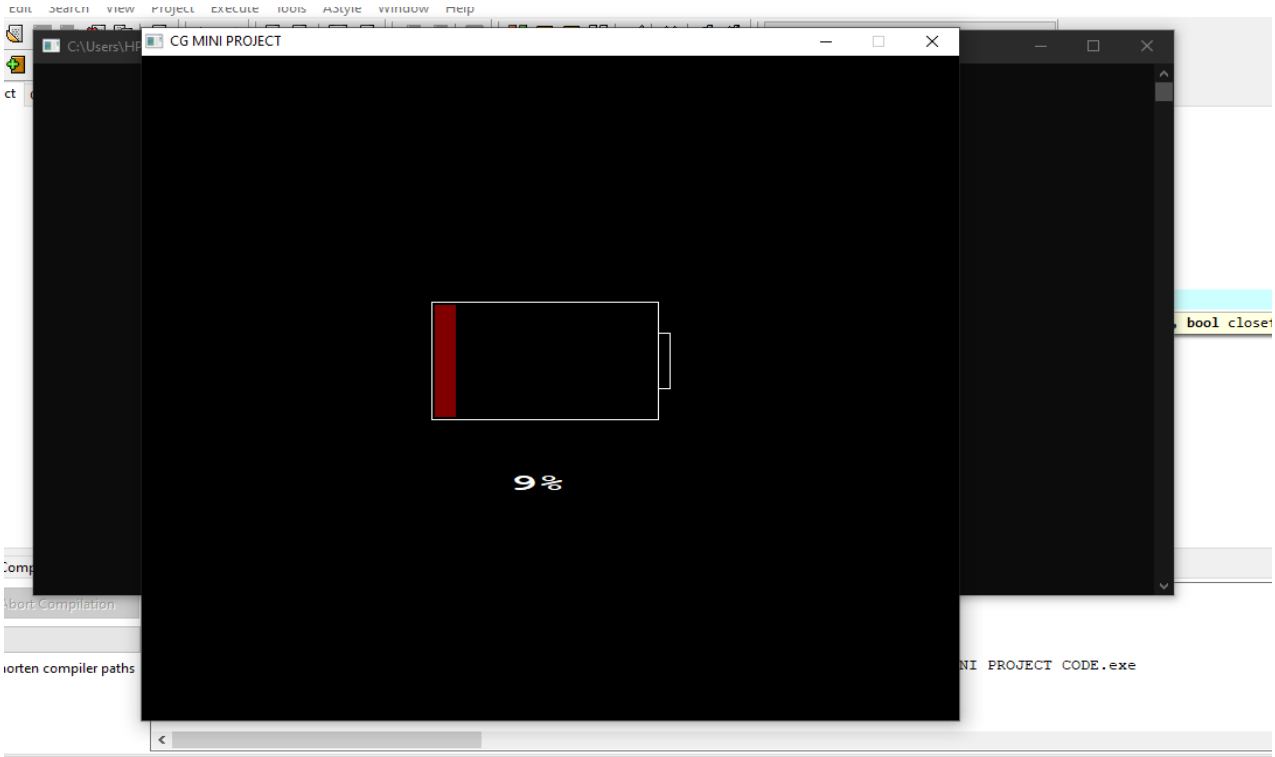
SYSTEM DESIGN:

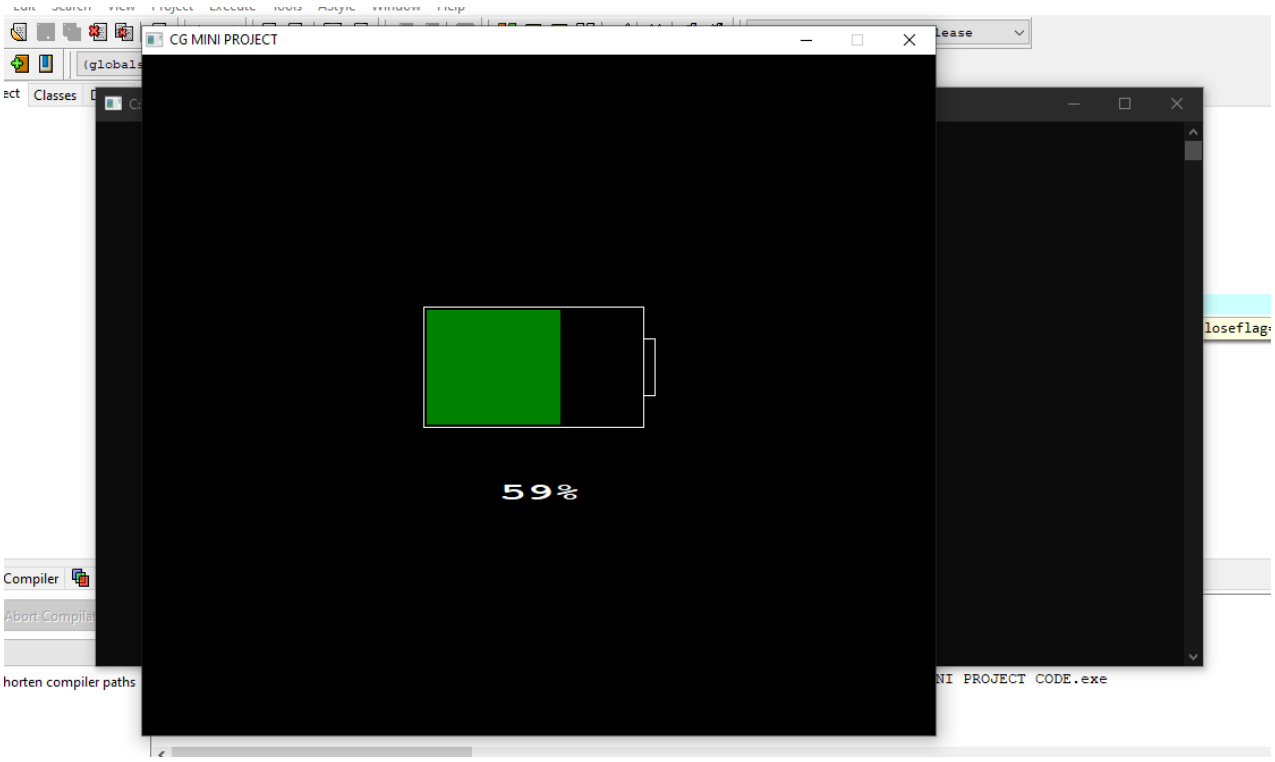
```
#include<graphics.h>
#include<stdio.h>
#include<string>

// BATTERY CHARGING GRAPHICS PROGRAM
using namespace std;
int main()
{
	int height=GetSystemMetrics(SM_CYSCREEN);
	int width=height;
	initwindow(700,600,"CG MINI PROJECT",150,50);
	int page=0;
	int n=1;
	while(n<=101)
	{
		setactivepage(page);
		setvisualpage(1-page);
		cleardevice();
		setcolor(WHITE);
		rectangle(250-2,300-3-75,440+2,400+3-75);
		int points[8]={442,325-75,450+2,325-75,450+2,375-75,442,375-75};
		drawpoly(4,points);

		if(n<=95)
		{
```

```
        for(int i=1;i<=n*2;i++)
        {
                if(n<=15)
                setcolor(RED);
                else
                setcolor(GREEN);
                line(250+i,300-75,250+i,400-75);
        }
 }
 else
 {

        for(int i=1;i<=95*2;i++)
        {
                setcolor(GREEN);
                line(250+i,300-75,250+i,400-75);
           }

           for(int j=1;j<=(n-95)*2;j++)
           {
                setcolor(GREEN);
                line(440+j,327-75,440+j,373-75);
        }
}
        setcolor(WHITE);
        stringstream s;
        s<<n<<"%";
        char ch[10];
```

```
            s>>ch;
            settextstyle(0,HORIZ_DIR,3);
            outtextxy(315,450-75,ch);
            page=1-page;
            delay(500);
            n++;

        }
        getch();
        closegraph();
}
```

SNAPSHOTS:





FUTURE SCOPE:

The future scope of our project aims to build a 3D view for charging and discharging process of the battery and to add more animation using user provided information through keyboard and mouse.

CONCLUSION:

Hence, this project was a Graphical Animation of a battery charging process using Computer Graphics .

REFERENCES:

- **https://en.wikipedia.org/wiki/Battery_simulator**
- **https://coolprogrammingprojects.blogspot.com/2021/07/battery-charging-animation-with-c.html**
- **https://depositphotos.com/113747752/stock-video-battery-charge-animation.html**
- **https://www.canstockphoto.com/battery-charging-and-discharging-3d-43956611.html**