

Experiment No : 3

Aim : To create a simple animation using functions defined in the libgraph library

Theory :

Animation is a method in which figures are manipulated to appear as moving images. Generally the effect of animation is achieved by a rapid succession of sequential images that minimally differ from each other. In computer animation this is achieved by changing the image every few milliseconds. These changes act like frames.

Code & Output :

```
#include<graphics.h>
#include<iostream>
using namespace std;
int main()
{
    int gd=DETECT,gm;

    initgraph(&gd,&gm,NULL);
    int r=1;

    while (r<=50){

        //Mountains
        setcolor(BROWN);
        line(0,200,1000,200);
        line(0,200,125,100);
        line(125,100,250,200);
        line(250,200,375,100);
        line(375,100,500,200);
        line(500,200,625,100);
        line(625,100,750,200);
        setcolor(BROWN);
        floodfill(50,190,WHITE);
        floodfill(270,190,WHITE);
        floodfill(525,190,WHITE);

        //Mountain Reflection
        line(0,200,125,300);
        line(125,300,250,200);
        line(250,200,375,300);
        line(375,300,500,200);
        line(500,200,625,300);
        line(625,300,750,200);
        floodfill(50,210,WHITE);
        floodfill(270,210,WHITE);
        floodfill(525,210,WHITE);

        //Animated Sun between a mountain
        setcolor(RED);
        arc(250,200,220,320,r);
        arc(250,200,40,140,r);
        //floodfill(250,201,WHITE);
    }
```

```

//Water
setcolor(BLUE);
line(0,300,1000,300);
floodfill(50,250,BROWN);
floodfill(300,250,BROWN);
floodfill(550,250,BROWN);

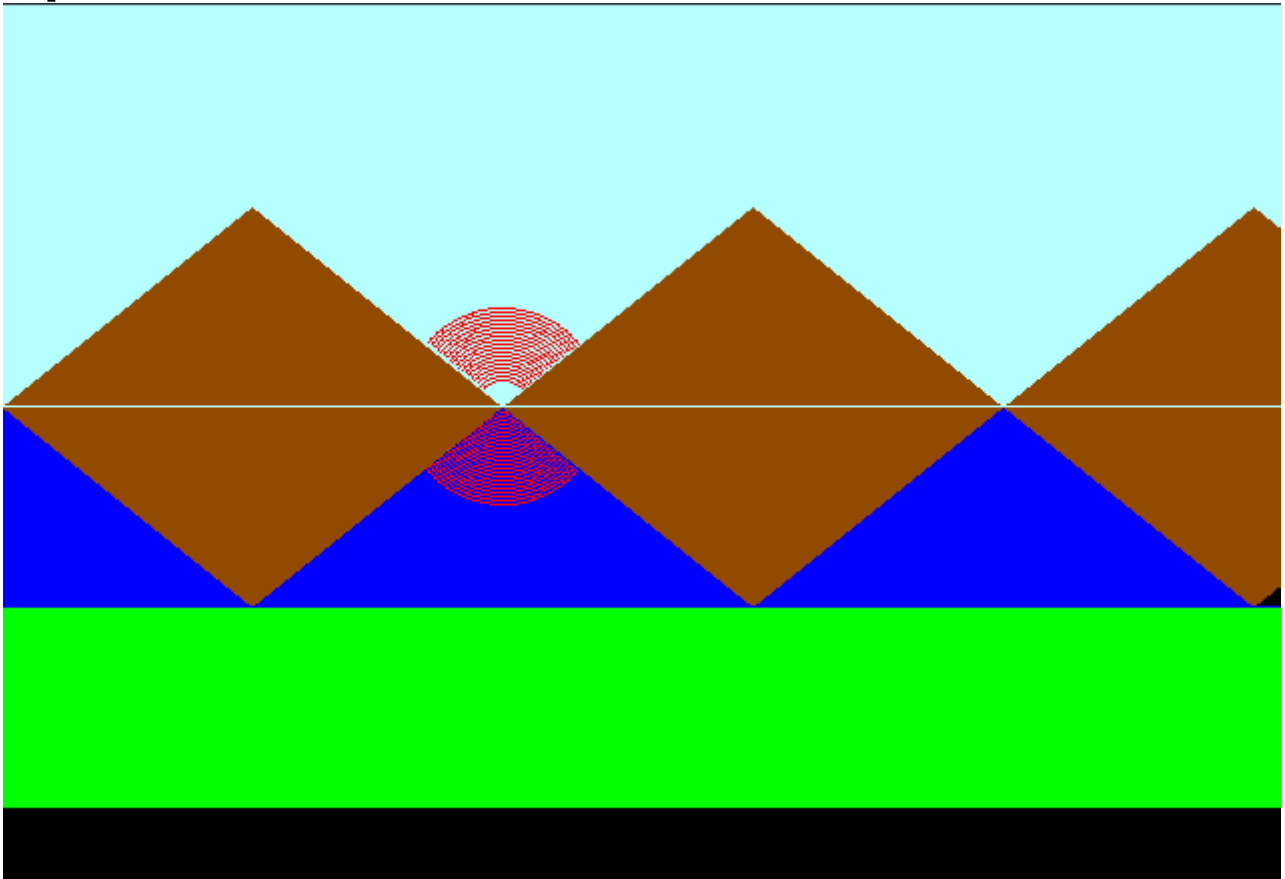
//Grass
setcolor(GREEN);
line(0,400,1000,400);
floodfill(50,350,BLUE);

if (r>10){
    setcolor(LIGHTCYAN);
    line(0,0,1000,0);
    line(0,0,0,200);
    line(1000,0,1000,200);
    line(0,200,1000,200);
    line(0,200,125,100);
    line(125,100,250,200);
    line(250,200,375,100);
    line(375,100,500,200);
    line(500,200,625,100);
    line(625,100,750,200);
    floodfill(10,10,GREEN);
}

r+=2;
delay(100);
}
delay(1500);
closegraph();
cout<<"Experiment 3"<<endl;
}
}

```

Output :



Conclusion : Program to create an animation using libgraph was written and executed successfully

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