Assignment Title:	Write a C++ program to implement bouncing ball using sine wave form. Apply the concept of polymorphism
Assignment No.:	7
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Year & DIV.:	SE A
Batch:	C
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Program Code:

```
#include<stdio.h>
#include<graphics.h>
#define HEIGHT getmaxy()
#define WIDTH getmaxx()
#define GROUND 450
#define MAXHEIGHT 420
int main()
{
    int x,y=0,t=MAXHEIGHT,c=1;
    int gd=DETECT,gm;
  initgraph(&gd,&gm,"C:\\T urboC3\\BGI");
  for(x=40;x<=getmaxx();x=x+2)
 {
   //Draw Ground
   rectangle (0,MAXHEIGHT,getmaxx(),MAXHEIGHT+5);
   floodfill (5,MAXHEIGHT+3,WHITE);
   //Draw Ball
  pieslice(x,y,0,360,20);
  //floodfill(x,y,RED);
```

```c
       delay(100);
       if(y>MAXHEIGHT-20)
        {
           c=0;
           t=t-40;
        }
        if(y<=(MAXHEIGHT-t))
        {
           c=1;
        }
         if(t>=40)
        y=y+(c? 15:-15);
        cleardevice();
        //Exit upon keypress
        if(kbhit())
        break;
    }
    getch();
    return 0;
    }
```

Program Output: