G. H. <u>Ra</u> i	s <u>oni</u> College <u>Of</u> Enginee Assignment			, <u>Wagholi</u> Pune	
Department	CE [SUMMER 2022 (Online)]				
Term / Section	∭/B	Date O	f submission	16-09-2021	
Subject Name /Code	Object Oriented Programming / UTIL201/UITP201				
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Registration Number	2020AC0E11001	07			



Assignment No.1

Aim: Write a program to compute the area of triangle and circle by overloading the area () function.

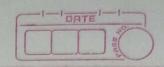
Theory:-

wrat is C++?

- language with cross platform compatibility used to execute high performance applications.
- by Bjarne Stroustrup as extension of clanguage
- over System resources and memory
- It is was updated 3 major times in 2011, 2014, and 2017, to C++11, C++14, C++17.

why use c++?

- · c++ is used in operating system, Grouphical user interfaces and embedded system.
- of the is a cop language used to give a clear structure to programs and allows code to be reused, lowering development costs.
- · It is postable and used to develop applications
 that can be adapted to multiple plut forms



Applications, Games, Animation, web Browser Dutabase Access, Media Access, compilers, Operating system, Scanning-like comera scannos.

CH Get Started

The 1st step before starting learning program instra

- It is to collection of a bunch of different compilers created by GNU.

-clong,

- Visual C++ 2017 community.

and a text editor like note pud if needed

CH INSTAL IDE

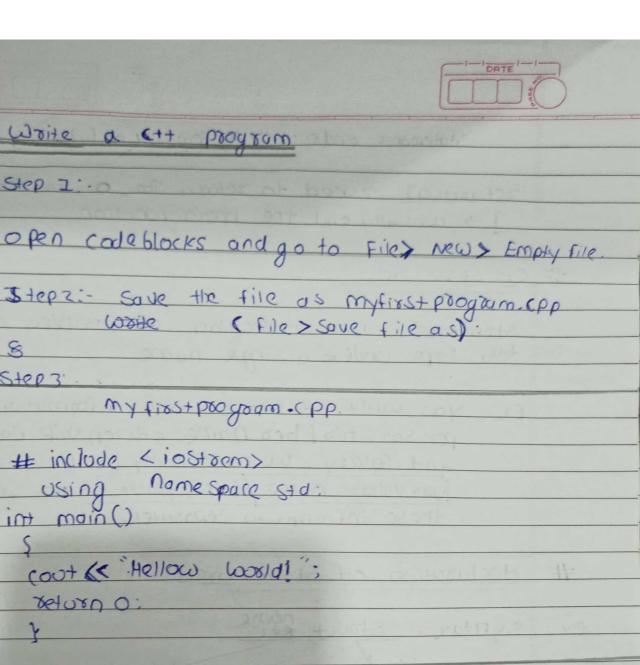
An IDE (Integrated pevelopment Envisonment) is used to edit and compile the role.

Some popular IDE's includes :> code:: Blocks, Eclipse, and Visual Studio,
The dawnload link is

Gode: blacks:> http://www.codeblocks.org/danloads/26

Clarg > http:// clarg. livm. org/get_Stooked. htm)

Https:// www visualstudio. com/ us/cplus plus/



Line => # include <iostocm> Lines beging read and interpreted by processor.

Write a C++ program

4 include < ioStrem>

4 Using nome space std:

Ly (out << "Hellow Loosed!";

my fixs+poogoam. (pp.

Step I'.

Ste03:

L3 int main ()

LG Meturn O:

oser

iostrem-> used It is a Header file used to parform Standard in Rux and output open ations

nomes for objects and consile orders. line 37 in+ main() -> The main function is declared by the return type of int.main(). Line 5> Standard consile out put ((out) LC' -> instruction orreator

Stolemont ends with a semicolon(i)

return(0) > used to return The 'o' to main function 3 -> actually end the main function.

C++ S+ ructores

Stauctures is a collection of variables of different data types under a single nume.

Ex: you want to store some information about a per son: his her name, citizenship number and solary, we can easily exect different variables name (Citro, Kalory) to Store these information separately

declaration of Structures)

Ex. Syntax: Stouct mane

Struct keyword is used Identified (name of the structure)

inside the cubly braces, we can declare one ox more members

Struct Person Char pome [50]; intage: float Salary

Hore a Structure speason jis defined which has three members: name tags Salary

-	-	DA		194	
1			1000	w/	
				u u	1
1	-	بالبنين	-	10	1

		+
Feature	structure	C1055
oet";>	a structure is a grouping of variables of various data types referenced by the same name	defined as a collection of related variables and functions contained within a single Structure.
Basic	It no access specified all members are set to Public'	is defined, all members are set to private.
œci ⁿ :→	Struct Struct_nember 1: type Struct_member 1: type Struct_member 2:	data member:
	type Struct_member N;	
usage	It is used too smalled amount of data	a truge amout of does
in Stance.	Structure variable	· 065ect.
in heritana	not suppost	SUPPORTS
memory all oxored	stacks	allocated on
averose	g rouping of data	and fulliger inham
constauts.	only parameterized constructor.	constautors and

```
//****write a program to compute the area of triangle and circle by overloading the area
function****
#include<iostream>
using namespace std;
float area(float r)
{
    return(3.14 * r * r);
}
float area(float b,float h)
{
    return(0.5 * b * h);
}
int main()
{
    float b,h,r;
    int ch;
    do
    {
         cout<<"SCOB77_Pratham pitty\n \n ";</pre>
         cout<<"write a program to compute the area of triangle and circle by overloading the area
function";
         cout<<"\n\n *****select from list***** \n";</pre>
         cout<<"\n 1. Area of Circle";
         cout<<"\n 2. Area of Triangle";</pre>
         cout<<"\n 3. Exit";
```

```
cin>>ch;
        switch(ch)
        {
            case 1:
            {
                cout<<"\n Enter the Radius of Circle: ";
                cin>>r;
                cout<<"\n Area of Circle : "<<area(r);</pre>
                cout<<"\n \n ";
                break;
            }
            case 2:
            {
                cout<<"\n Enter the Base & Height of Triangle : ";</pre>
                cin>>b>>h;
                cout<<"\n Area of Triangle : "<<area(b,h);</pre>
                cout << "\n \n ";
                cout<<"-----\n";
                break;
            }
            case 3:
                exit(0);
            default:
                cout<<"\n Invalid Choice... ";
        }
    }while(ch!=3);
    return 0;
}
```

cout<<"\n\n Enter Your Choice : ";</pre>

■ "C:\Users\prath\OneDrive\Desktop\code block 1\WAP to compute the area of trangle and circle by funtion overloading\main.exe"		X
COB77_Pratham pitty		^
write a program to compute the area of triangle and circle by overloading the area function		П
*****select from list*****		
1. Area of Circle 2. Area of Triangle 3. Exit		
Enter Your Choice : 1		
Enter the Radius of Circle : 4		
Area of Circle : 50.24		
COB77_Pratham pitty		
write a program to compute the area of triangle and circle by overloading the area function		
*****select from list****		
1. Area of Circle 2. Area of Triangle 3. Exit		
Enter Your Choice : 2		
Enter the Base & Height of Triangle : 2 4		
Area of Triangle : 4		
COB77_Pratham pitty		
write a program to compute the area of triangle and circle by overloading the area function		
*****select from list****		
1. Area of Circle 2. Area of Triangle 3. Exit		
Enter Your Choice : 3		
rocess returned 0 (0x0) execution time : 12.705 s ress any key to continue.		