

1.cpp

1.cpp > main()

```
1  #include<iostream>
2  using namespace std;
3
4  class Student
5  {
6      public:
7          string name;
8          int roll_no;
9  }obj1;
10 int main()
11 {
12     obj1.name="John";
13     obj1.roll_no=2;
14     cout << "Initialized values:" << endl;
15     cout << obj1.name << endl;
16     cout << obj1.roll_no << endl;
17     return 0;
18 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Code + - [ ] [x] ^ x

Install the latest PowerShell for new features and improvements! <https://aka.ms/PSWindows>

PS D:\OODP\Week3\_Task1\Task1> cd "d:\OODP\Week3\_Task1\Task1\" ; if (\$?) { g++ 1.cpp -o 1 } ; if (\$?) { .\1 }

Initialized values:

John

2

PS D:\OODP\Week3\_Task1\Task1>

0 0 0

Reconnect to Discord

Ln 18, Col 2

Spaces: 4

UTF-8

LF

C++

Go Live

Win32

30°C

Partly cloudy

ENG

IN

11:48 PM

9/10/2022

Visual Studio Code interface showing a C++ program (2.cpp) and its execution output in the terminal.

**2.cpp**

```
1 #include<iostream>
2 using namespace std;
3
4 class Trial
5 {
6     public:
7     string name,grade;
8     int roll_no;
9 }obj1,obj2;
10
11 int main()
12 {
13     obj1.name="Big Boss";
14     obj1.grade="S";
15     obj1.roll_no=7;
16     obj2.name="Solid Snake";
17     obj2.grade="S";
18     obj2.roll_no=30;
19     cout << "Attributes of Object 1:" << endl;
20     cout << obj1.name << " " << obj1.roll_no << " " << obj1.grade << endl;
21     cout << "Attributes of Object 2:" << endl;
22     cout << obj2.name << " " << obj2.roll_no << " " << obj2.grade << endl;
23     return 0;
24 }
```

**Terminal Output:**

```
PS D:\OODP\Week3_Task1\Task1> cd "d:\OODP\Week3_Task1\Task1\" ; if ($?) { g++ 2.cpp -o 2 } ; if ($?) { .\2 }
Attributes of Object 1:
Big Boss 7 S
Attributes of Object 2:
Solid Snake 30 S
PS D:\OODP\Week3_Task1\Task1>
```

System tray information: 30°C Partly cloudy, 11:48 PM 9/10/2022.

3.cpp

```
1 #include<iostream>
2 using namespace std;
3 class Date
4 {
5     public:
6     int day,month,year;
7
8     void read()
9     {
10         cout << "All entries in numbers please\n";
11         cout << "Enter the day: "; cin >> day;
12         cout << "\nEnter the month: "; cin >> month;
13         cout << "\nEnter the year: "; cin >> year;
14         return;
15     }
16     void print()
17     {
18         cout << "\nD/M/Y format: " << day << "/" << month << "/" << year << endl;
19         cout << "\nM/D/Y format: " << month << "/" << day << "/" << year << endl;
20         return;
21     }
22     void one()
23     {
24         cout << "Date after one week (D/M/Y): ";
25         if(day>=22)
26         {
27             if(day>=22 && month==2)
28             {
29                 if(year%4!=0)
30                     cout << (day+7)-28 << "/" << month+1 << "/" << year << endl;
31                 else if((year%4==0 && year%100!=0) || (year%100==0 && year%400==0))
32                     cout << (day+7)-29 << "/" << month+1 << "/" << year << endl;
33             }
34             else if (month==4 || month==6 || month==9 || month==11)
35                 cout << (day+7)-30 << "/" << month+1 << "/" << year << endl;
36             else
37                 cout << (day+7)-31 << "/" << month+1 << "/" << year << endl;
38         }
39         else
40             cout << day+7 << "/" << month << "/" << year << endl;
41         return;
42     }
43 };
44 int main()
45 {
46     ob.read();
47     ob.print();
48     ob.one();
49     return 0;
50 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

```
All entries in numbers please
Enter the day: 5
Enter the year: 2022

D/M/Y format: 5/8/2022

M/D/Y format: 8/5/2022
Date after one week (D/M/Y): 12/8/2022
PS D:\OODP\Week3_Task1\Task1>
```

0 0 0

Reconnect to Discord

Ln 43, Col 5

Spaces: 4

UTF-8

LF

C++

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Win32

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ENG

IN

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9/10/2022



FileEditSelectionViewGoRunTerminalHelp

5.cpp - Task1 - Visual Studio Code

5.cpp 1 X

C++ 5.cpp > ...

```
1 #include<iostream>
2 #include<cstring>
3 using namespace std;
4
5 class strFunc
6 {
7 public:
8 void get_Str()
9 {
10     string str;
11     cout << "Enter a string" << endl;
12     getline(cin,str);
13     print_Str(str);
14 }
15 void print_Str(string str)
16 {
17     int i;
18     cout << "String in lower case: " << endl;
19     for(i=0;i<str.length();i++)
20         cout << (char)tolower(str[i]) << " ";
21     cout << endl;
22     cout << "String in upper case: " << endl;
23     for(i=0;i<str.length();i++)
24         cout << (char)toupper(str[i]) << " ";
25     cout << endl;
26     return;
27 }
28
29 }obj;
30
31 int main()
32 {
33     obj.get_Str();
34     return 0;
35 }
```

PROBLEMS 1

OUTPUT

DEBUG CONSOLE

TERMINAL

Code + - [ ] [ ] ^ X

> cd "d:\OODP\Week3\_Task1\Task1" ; if (\$?) { g++ 5.cpp -o 5 } ; if (\$?) { .\5 }

Enter a string  
aditya  
String in lower case:  
aditya  
String in upper case:  
ADITYA  
PS D:\OODP\Week3\_Task1\Task1>

Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

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ENG IN 11:50 PM 9/10/2022

FileEditSelectionViewGoRunTerminalHelp

6.cpp - Task1 - Visual Studio Code

6.cpp

6.cpp > ...

```
1  #include<iostream>
2  #include<math.h>
3  using namespace std;
4
5  class Triangle
6  {
7  public:
8      void peri(int a,int b, int c)
9      {
10         cout << "Perimeter: " << a+b+c << endl;
11         area(a,b,c);
12     }
13     void area(int a, int b, int c)
14     {
15         float s=((float)(a+b+c))/2.0;
16         float ar=pow(s*(s-a)*(s-b)*(s-c),0.5);
17         cout << "Area: " << ar << endl;
18         return;
19     }
20 }obj;
21
22
23 int main()
24 {
25     obj.peri(3,4,5);
26     return 0;
27 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

```
> cd "d:\OODP\Week3_Task1\Task1\" ; if ($?) { g++ 6.cpp -o 6 } ; if ($?) { .\6 }

Perimeter: 12
Area: 1
PS D:\OODP\Week3_Task1\Task1>
```

0 0 0

Reconnect to Discord

Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

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FileEditSelectionViewGoRunTerminalHelp7.cpp - Task1 - Visual Studio Code

7.cpp

```
1 #include<iostream>
2 using namespace std;
3
4 class Average
5 {
6     public:
7         //static float a,b,c;
8         static void avg(float a, float b, float c)
9         {
10             cout << "Average: " << (a+b+c)/3 << endl;
11         }
12     };
13
14 int main()
15 {
16     float a,b,c;
17     cout << "Enter any three numbers:\n";
18     cin >> a >> b >> c;
19     Average::avg(a,b,c);
20     return 0;
21 }
22
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

> cd "d:\OODP\Week3\_Task1\Task1\" ; if (\$?) { g++ 7.cpp -o 7 } ; if (\$?) { .\7 }

Enter any three numbers:

4 8 3

Average: 5

PS D:\OODP\Week3\_Task1\Task1>

0 0 0 Reconnect to Discord

Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

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ENG IN

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8.cpp

```
1  #include<iostream>
2  using namespace std;
3
4  class Room
5  {
6  public:
7      float l,b,h;
8      float Area()
9      {
10         return l*b;
11     }
12     float Vol()
13     {
14         return l*b*h;
15     }
16 }room1,room2;
17
18 int main()
19 {
20     cout << "Enter length of room 1: "; cin >> room1.l;
21     cout << "Enter breadth of room 1: "; cin >> room1.b;
22     cout << "Enter height of room 1: "; cin >> room1.h;
23     cout << "Enter length of room 2: "; cin >> room2.l;
24     cout << "Enter breadth of room 2: "; cin >> room2.b;
25     cout << "Enter height of room 2: "; cin >> room2.h;
26     cout << "Area of Room 1: " << room1.Area() << endl;
27     cout << "Volume of Room 1: " << room1.Vol() << endl;
28     cout << "Area of Room 2: " << room2.Area() << endl;
29     cout << "Volume of Room 2: " << room2.Vol() << endl;
30     return 0;
31 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Code

Enter length of room 1: 5  
Enter breadth of room 1: 7  
Enter height of room 1: 9  
Enter length of room 2: 6  
Enter breadth of room 2: 4  
Enter height of room 2: 9  
Area of Room 1: 35  
Volume of Room 1: 315  
Area of Room 2: 24  
Volume of Room 2: 216  
PS D:\OODP\Week3\_Task1\Task1>

0 0 0

Reconnect to Discord

Ln 1, Col 1

Spaces: 4

UTF-8

LF

C++

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Win32

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IN

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9/10/2022



FileEditSelectionViewGoRunTerminalHelp

9.cpp - Task1 - Visual Studio Code

9.cpp 1 X

C++ 9.cpp > ...

```
1  #include<iostream>
2  using namespace std;
3
4  class Car
5  {
6  public:
7      float price,weight,length,gc;
8      string ft,name;
9      void Display()
10     {
11         cout << endl;
12         cout << "Name of the car: " << name << endl;
13         cout << "Fuel Type of the car: " << ft << endl;
14         cout << "Price of the car: " << price << endl;
15         cout << "Weight of the car: " << weight << endl;
16         cout << "Length of the car: " << length << endl;
17         cout << "Ground Clearance of the car: " << gc << endl;
18         return;
19     }
20 }cust;
21
22 int main()
23 {
24     cout << "Enter the name of the car: "; getline(cin,cust.name);
25     cout << "\nEnter the fuel type of the car: "; cin >> cust.ft;
26     cout << "\nEnter the price of the car: "; cin >> cust.price;
27     cout << "\nEnter the weight of the car: "; cin >> cust.weight;
28     cout << "\nEnter the length of the car: "; cin >> cust.length;
29     cout << "\nEnter the ground clearance of the car: "; cin >> cust.gc;
30     cust.Display();
31     return 0;
32 }
```

PROBLEMS 1

OUTPUT

DEBUG CONSOLE

TERMINAL

Code + -

Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

Enter the weight of the car:  
Enter the length of the car:  
Enter the ground clearance of the car:  
Name of the car: Toyota  
Fuel Type of the car: Diesel  
Price of the car: 28  
Weight of the car: 0  
Length of the car: 0  
Ground Clearance of the car: 0  
PS D:\OODP\Week3\_Task1\Task1>

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82

2

99

ENG IN 11:53 PM 9/10/2022 10

FileEditSelectionViewGoRunTerminalHelp

10.cpp - Task1 - Visual Studio Code

10.cpp 1 X

C++ 10.cpp > ...  
1 #include<iostream>  
2 using namespace std;  
3  
4 class Placement  
5 {  
6 public:  
7 string name;  
8 char gender;  
9 float cgpa,back;  
10 bool isValid()  
11 {  
12 if(back==0 && cgpa>=6.0)  
13 return true;  
14 else  
15 return false;  
16 }  
17 }stud;  
18 int main()  
19 {  
20 cout << "Enter the name of student: "; getline(cin,stud.name);  
21 cout << "\nEnter the gender of student (M/F): "; cin >> stud.gender;  
22 cout << "\nEnter the CGPA of the student: "; cin >> stud.cgpa;\n  
23 cout << "\nEnter the number of backlogs of the student: "; cin >> stud.back;  
24 if(stud.isValid())  
25 {  
26 cout << stud.name << " is eligible to sit for placement" << endl;  
27 }  
28 else  
29 {  
30 cout << stud.name << " is not eligible to sit for placement" << endl;  
31 }  
32 return 0;  
33 }

PROBLEMS 1

OUTPUT

DEBUG CONSOLE

TERMINAL

Code + -

Enter the name of student: aditya

Enter the gender of student (M/F): M

Enter the CGPA of the student: 9.3

Enter the number of backlogs of the student: 0

aditya is eligible to sit for placement

PS D:\OODP\Week3\_Task1\Task1>

Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

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FileEditSelectionViewGoRunTerminalHelp

11.cpp - Task1 - Visual Studio Code

11.cpp 1 X

```
1 //Since no criteria was given in question
2 //hra=50% of bp
3 //ta=50% of bp
4 //da=50% of bp
5 /*
6 gp: 1 --> 18,000 bonus
7 gp: 2 --> 25,000 bonus
8 gp: 3 --> 32,000 bonus
9 gp: 4 --> 39,000 bonus
10 gp: 5 and above --> 65,000 bonus
11 That's all
12
13 Deduction: 5% from bp
14 */
15 #include<iostream>
16 using namespace std;
17
18 class Payroll
19 {
20 public:
21     string name,id;
22     float bp,hra,ta,da,gp,d,gpp;
23     void Pay()
24     {
25         hra=0.5*bp;
26         ta=0.5*bp;
27         da=0.5*bp;
28         if(gp==1)
29             gp=18000;
30         else if(gp==2)
31             gp=25000;
32         else if(gp==3)
33             gp=32000;
34         else if(gp==4)
35             gp=39000;
36         else if(gp>=5)
37             gp=65000;
38         d=0.05*bp;
39         gpp=bp+hra+ta+da+gp-d;
40         cout<<"Gross Pay: " << gpp << endl;
41         return;
42     }
43 };
44
45 int main()
46 {
47     cout<<"Enter name of employee: ";getline(cin,ob.name);
48     cout<<"Enter Employee ID: ";cin>>ob.id;
49     cout<<"Enter basic pay of Employee: ";cin>>ob.bp;
50     cout<<"Enter grade pay of Employee: ";cin>>ob.gp;
51     ob.Pay();
52     return 0;
53 }
```

PROBLEMS 1

OUTPUT

DEBUG CONSOLE

TERMINAL

Code + - [ ] [X] ^ X

> cd "d:\OODP\Week3\_Task1\Task1\" ; if (\$?) { g++ 11.cpp -o 11 } ; if (\$?) { .\11 }

Enter name of employee: aditya

Enter Employee ID: 545501

Enter basic pay of Employee: 70000

Enter grade pay of Employee: 6500

Gross Pay: 210500

PS D:\OODP\Week3\_Task1\Task1>

Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

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ENG IN

11:54 PM 9/10/2022

FileEditSelectionViewGoRunTerminalHelp

12.cpp - Task1 - Visual Studio Code

12.cpp

12.cpp > ...

```
1  #include<iostream>
2  using namespace std;
3
4  class Employee
5  {
6      public:
7          string name,address;
8          int yr;
9  }ob1,ob2,ob3;
10
11 int main()
12 {
13     ob1.name="Robert";ob1.yr=1994;ob1.address="64C- WallsStreat";
14     ob2.name="Sam";ob2.yr=2000;ob2.address="68D- WallsStreat";
15     ob3.name="John";ob3.yr=1999;ob3.address="26B- WallsStreat";
16     cout << "Name\tYear of Joining\tAddress" << endl;
17     cout << ob1.name << "\t" << ob1.yr << "\t" << ob1.address << endl;
18     cout << ob2.name << "\t" << ob2.yr << "\t" << ob2.address << endl;
19     cout << ob3.name << "\t" << ob3.yr << "\t" << ob3.address << endl;
20     return 0;
21 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

> cd "d:\OODP\Week3\_Task1\Task1\" ; if (\$?) { g++ 12.cpp -o 12 } ; if (\$?) { .\12 }

Name	Year of Joining	Address
Robert	1994	64C- WallsStreat
Sam	2000	68D- WallsStreat
John	1999	26B- WallsStreat

PS D:\OODP\Week3\_Task1\Task1>

0 0 0

Reconnect to Discord

Ln 1, Col 1

Spaces: 4

UTF-8

LF

C++

Go Live

Win32

30°C

Partly cloudy

11:54 PM

9/10/2022

13.cpp

```
1 #include<iostream>
2 using namespace std;
3
4 class AddDistance
5 {
6     public:
7     float i1,i2;
8     void add()
9     {
10         cout << "\nSum :" << i1+i2 << endl;
11         return;
12     }
13 }ob;
14
15 int main()
16 {
17     cout << "Enter two distances in inches:" << endl;
18     cin >> ob.i1 >> ob.i2;
19     ob.add();
20     return 0;
21 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

```
> cd "d:\OODP\Week3_Task1\Task1\" ; if ($?) { g++ 13.cpp -o 13 } ; if ($?) { .\13 }
Enter two distances in inches:
5 6

Sum :11
PS D:\OODP\Week3_Task1\Task1>
```

Ln 1, Col 1

Spaces: 4

UTF-8

LF

C++

Go Live

Win32

30°C

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ENG

IN

11:55 PM

9/10/2022



Visual Studio Code interface showing a C++ program (14.cpp) and its execution output in the terminal.

**14.cpp**

```
1 #include<iostream>
2 using namespace std;
3
4 class Add
5 {
6     public:
7     float r,i;
8     static float addreal(float r1,float r2)
9     {
10         return r1+r2;
11     }
12     static float addcomp(float i1,float i2)
13     {
14         return i1+i2;
15     }
16 }ob1,ob2;
17 int main()
18 {
19     cout << "Enter real part of first complex: ";cin >>ob1.r;
20     cout << "Enter imaginary part of first complex: ";cin >>ob1.i;
21     cout << "Enter real part of second complex: ";cin >>ob2.r;
22     cout << "Enter imaginary part of second complex: ";cin >>ob2.i;
23     cout << "Sum of Real Parts: " << Add::addreal(ob1.r,ob2.r) << endl;
24     cout << "Sum of Imaginary Parts: " << Add::addcomp(ob1.i,ob2.i) << endl;
25     return 0;
26 }
```

**Terminal Output:**

```
> cd "d:\OODP\Week3_Task1\Task1" ; if ($?) { g++ 14.cpp -o 14 } ; if ($?) { .\14 }
Enter real part of first complex: 2
Enter imaginary part of first complex: 6
Enter real part of second complex: 4
Enter imaginary part of second complex: 3
Sum of Real Parts: 6
Sum of Imaginary Parts: 9
PS D:\OODP\Week3_Task1\Task1>
```

Visual Studio Code status bar: Ln 1, Col 1 Spaces: 4 UTF-8 LF C++ Go Live Win32

Windows taskbar: 30°C Partly cloudy, 11:55 PM 9/10/2022



15.cpp

```
1  #include<iostream>
2  using namespace std;
3
4  class Factway
5  {
6  public:
7      int n,fact=1;
8      void factin();
9  }ob;
10
11 void Factway::factin()
12 {
13     while(n!=1)
14     {
15         fact*=n;
16         n--;
17     }
18     return;
19 }
20
21 int main()
22 {
23     cout << "Enter a whole number to find out its factorial: ";
24     cin >> ob.n;
25     ob.factin();
26     cout << "\nFactorial: " << ob.fact << endl;
27     return 0;
28 }
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

```
> cd "d:\OODP\Week3_Task1\Task1" ; if ($?) { g++ 15.cpp -o 15 } ; if ($?) { .\15 }
Enter a whole number to find out its factorial: 8

Factorial: 40320
PS D:\OODP\Week3_Task1\Task1>
```

Ln 1, Col 1

Spaces: 4

UTF-8

LF

C++

Go Live

Win32

30°C

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ENG

IN

11:56 PM

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