

## DAY 3 Class Problems

- 1) Write a C++ program to display student details using a function with default arguments. Parameters: Name, Department, College , Set the default value of College as "ABC Engineering College".

The screenshot shows the Visual Studio Code interface with the following details:

- EXPLORER** sidebar: Shows files like .vscode, launch.json, tasks.json, and several program files (program.cpp, program1.cpp, program2.cpp, program3.cpp, program4.cpp).
- CODE EDITOR**: The file `practice.cpp` is open, containing the following code:

```
#include <iostream>
using namespace std;

void displayStudent(string name, string department,
                   string college = "ABC Engineering College")
{
    cout << "Name : " << name << endl;
    cout << "Department : " << department << endl;
    cout << "College : " << college << endl;
}

int main()
{
    displayStudent("Chaithanya", "Computer Science");
    return 0;
}
```
- TERMINAL**: Shows the command-line output of the program:

```
guttipchaitanya@Guttis-MacBook-Air vscode % cd "/Users/guttipchaitanya/vscode/" && g++ practice.c
guttipchaitanya@Guttis-MacBook-Air vscode % cd "/Users/guttipchaitanya/vscode/" && g++ practice.c
guttipchaitanya@Guttis-MacBook-Air vscode % ./practice
Enter the value of a: 5
Value Deleted
Name : Chaithanya
Department : Computer Science
College : ABC Engineering College
guttipchaitanya@Guttis-MacBook-Air vscode %
```
- CHAT**: A sidebar with a message bubble icon and the text "Ask about your code". It also includes a note: "AI responses may be inaccurate. Generate Agent Instructions to onboard AI onto your codebase."
- SUGGESTED ACTIONS**: Buttons for "Build Workspace" and "Show Config". Below it, a card says "Explore and understand your code" with "Ask" and "Auto" dropdowns.

**2)** Write a C++ function to calculate the area of a rectangle using default arguments.

Default width = 10

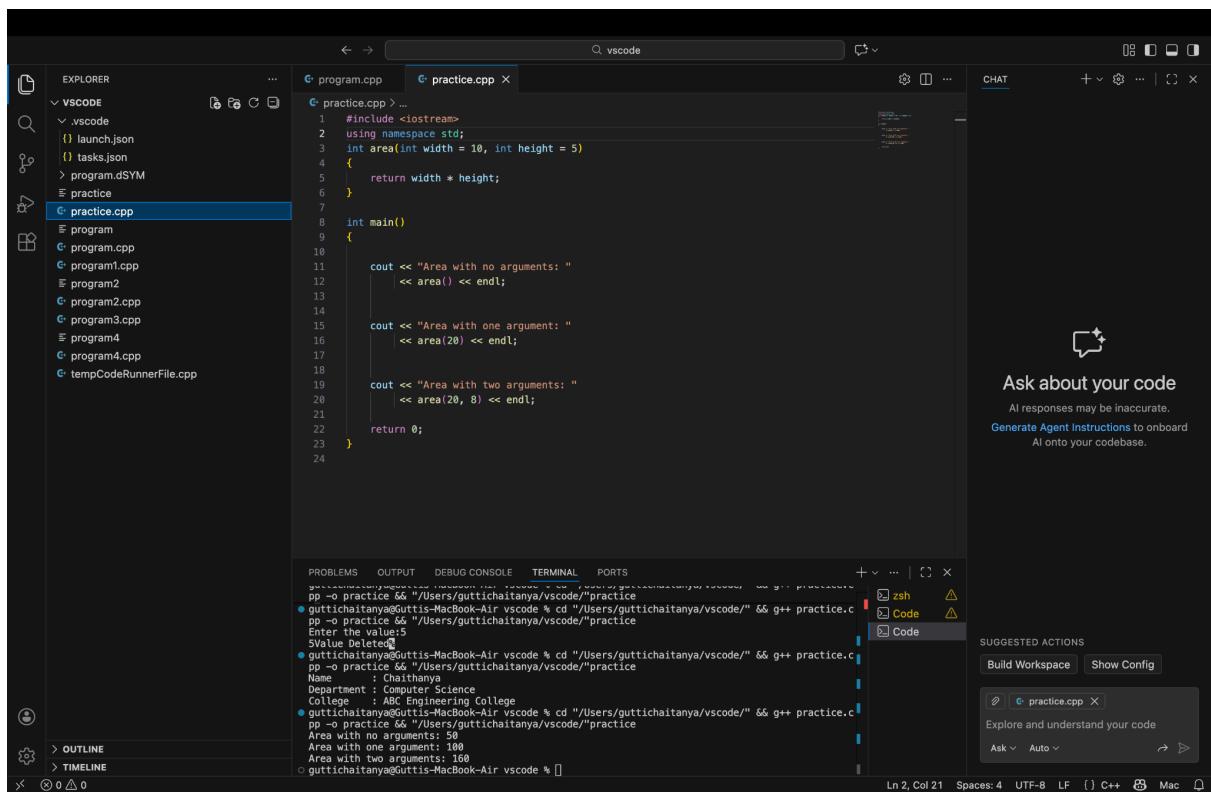
Default height = 5

Demonstrate function calls with:

## No arguments

## One argument

## Two arguments



3) Write a C++ program to overload the function max() to find:

Maximum of two integers

Maximum of two floating-point numbers

Maximum of three integers

The screenshot shows the VS Code interface with the following details:

- Explorer View:** Shows files in the workspace, including `VS CODE`, `.vscode`, `program.cpp`, `practice`, `practice.cpp` (selected), `program1.cpp`, `program2.cpp`, `program3.cpp`, `program4.cpp`, and `tempCodeRunnerFile.cpp`.
- Code Editor:** Displays the `practice.cpp` file with the following code:

```
20 int main()
21 {
22     cout << "Max of two floats: "
23         << max(10.5f, 20.3f) << endl;
24
25     cout << "Max of three integers: "
26         << max(max(5, 15, 10) << endl;
27
28     return 0;
29 }
```

- Terminal:** Shows the command-line output of the program's execution:

```
guttichaitanya@Gutti-MacBook-Air ~ % cd "/Users/guttichaitanya/vscode/" && g++ practice.c
pp -o practice && "/Users/guttichaitanya/vscode/"practice
Name : Gutticha Chaitanya
Department : Computer Science
College : ABC Engineering College
guttichaitanya@Gutti-MacBook-Air ~ % cd "/Users/guttichaitanya/vscode/" && g++ practice.c
pp -o practice && "/Users/guttichaitanya/vscode/"practice
Area with no arguments: 50
Area with one argument: 100
Area with two arguments: 160
guttichaitanya@Gutti-MacBook-Air ~ % cd "/Users/guttichaitanya/vscode/" && g++ practice.c
pp -o practice && "/Users/guttichaitanya/vscode/"practice
Max of two integers: 20
Max of two floats: 20.3
Max of three integers: 15
guttichaitanya@Gutti-MacBook-Air ~ %
```

- Suggested Actions:** A sidebar on the right suggests actions like "Build Workspace" and "Show Config".