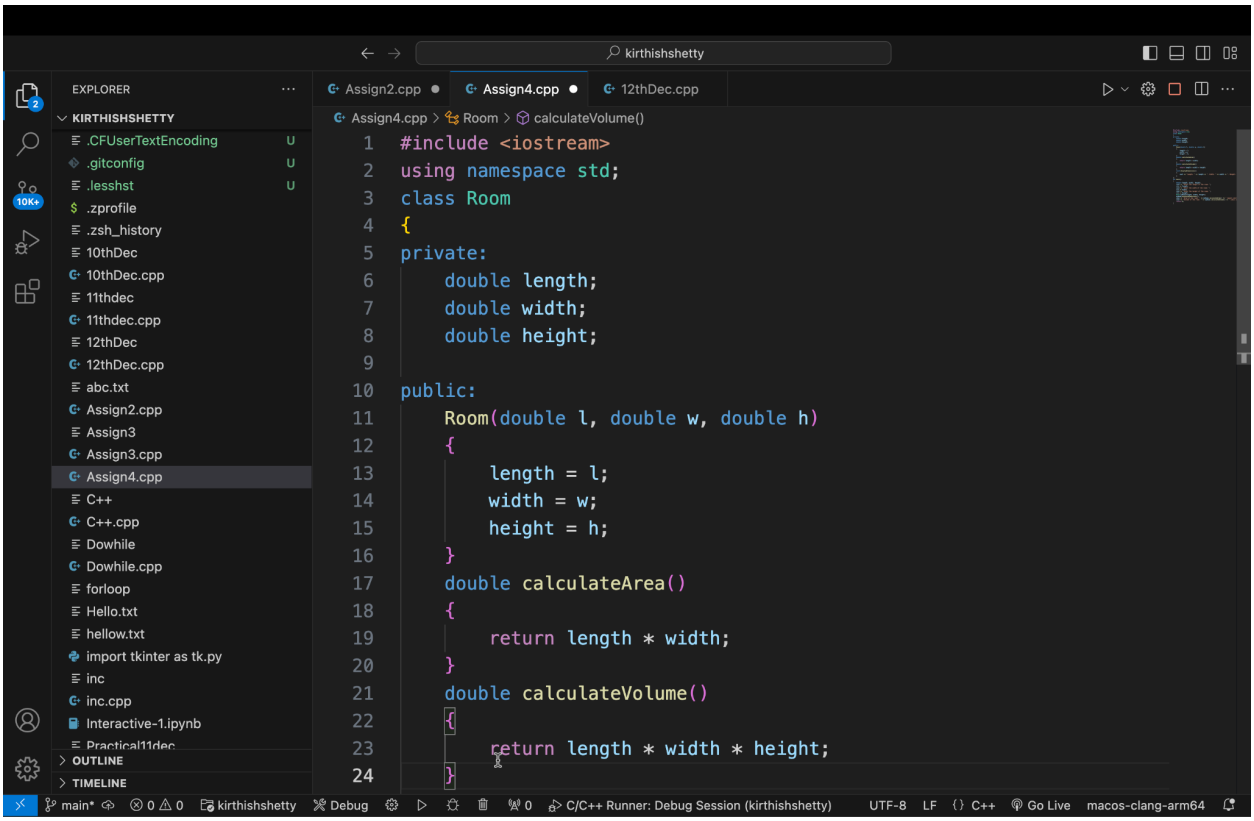
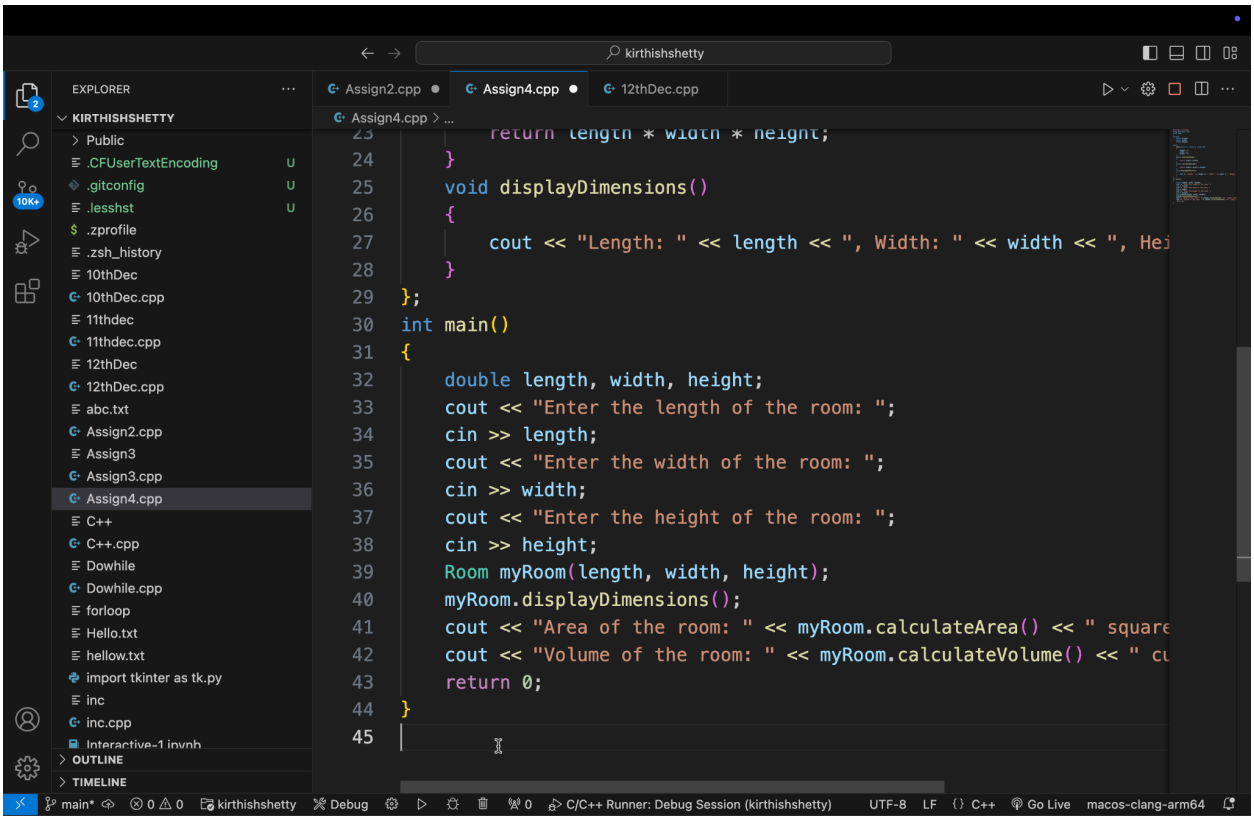
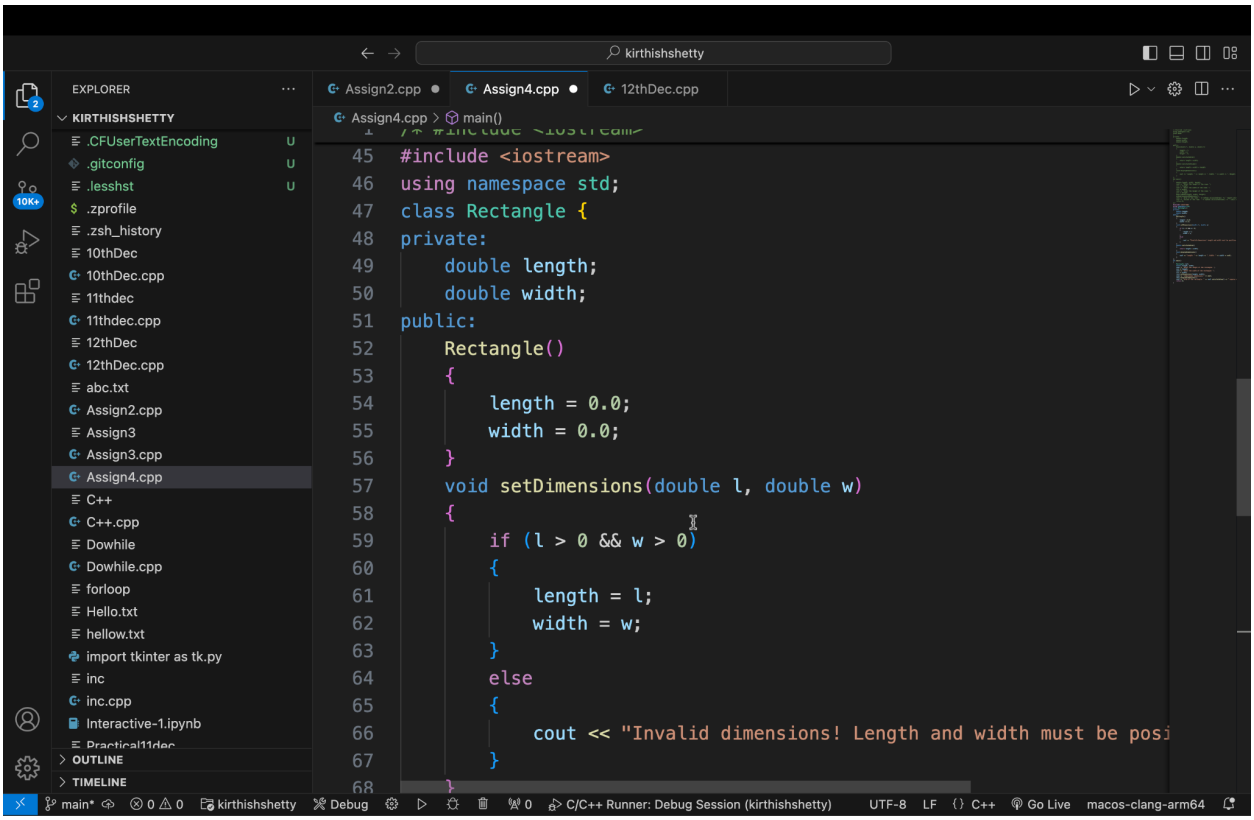
Assignment 4

1.WAP in C++ using class and object to calculate the area and volume of the room





2.Create a Rectangle class with attributes for length and width. Include methods to set dimensions, calculate the area, and display the dimensions.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import tkinter as tk.py
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Assign4.cpp > main()
#include <iostream>
using namespace std;
class Rectangle {
private:
double length;
double width;
public:
Rectangle()
{
length = 0.0;
width = 0.0;
}
void setDimensions(double l, double w)
{
if (l > 0 && w > 0)
{
length = l;
width = w;
}
else
{
cout << "Invalid dimensions! Length and width must be posi
}
main*
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Debug
C/C++ Runner: Debug Session (kirthishshetty)
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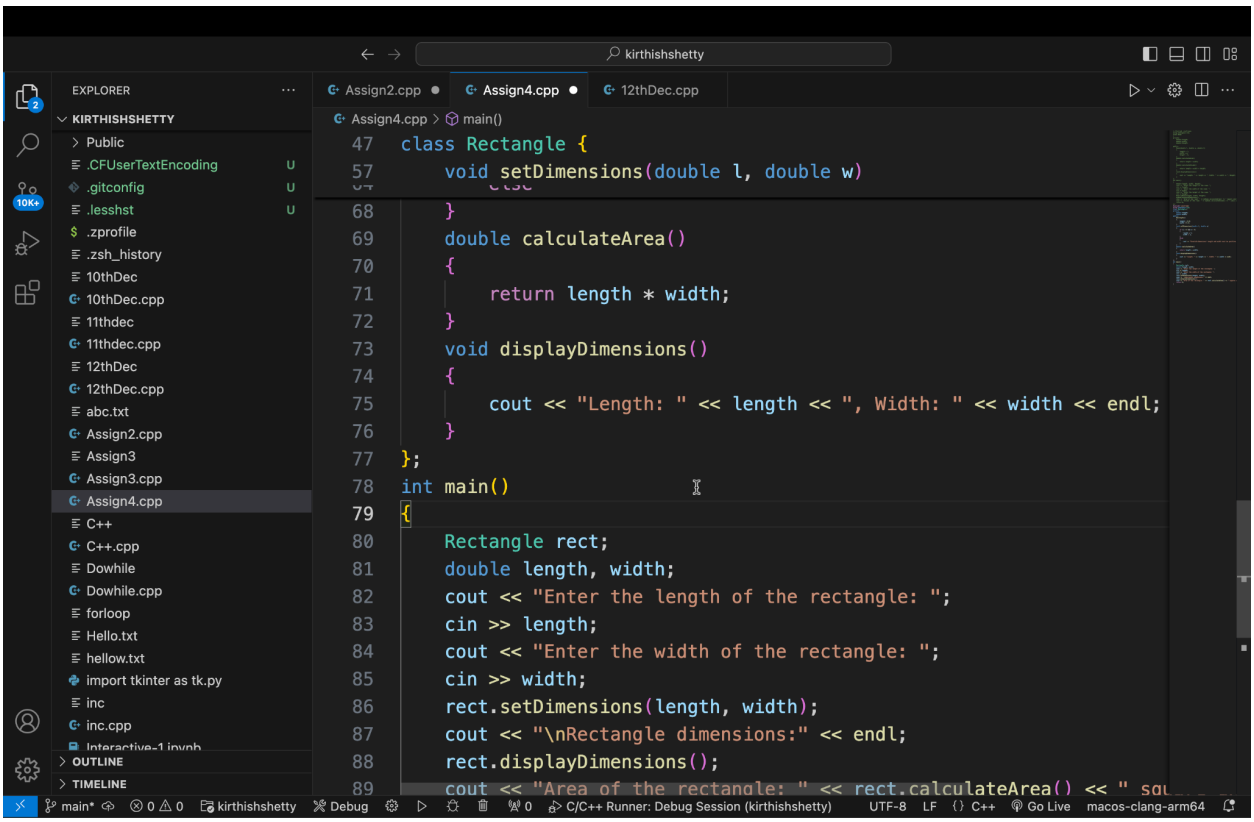
C++
Go Live
macos-clang-arm64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Assign4.cpp > main()
class Rectangle {
void setDimensions(double l, double w)
}
double calculateArea()
{
return length * width;
}
void displayDimensions()
{
cout << "Length: " << length << ", Width: " << width << endl;
}
};
int main()
{
Rectangle rect;
double length, width;
cout << "Enter the length of the rectangle: ";
cin >> length;
cout << "Enter the width of the rectangle: ";
cin >> width;
rect.setDimensions(length, width);
cout << "\nRectangle dimensions:" << endl;
rect.displayDimensions();
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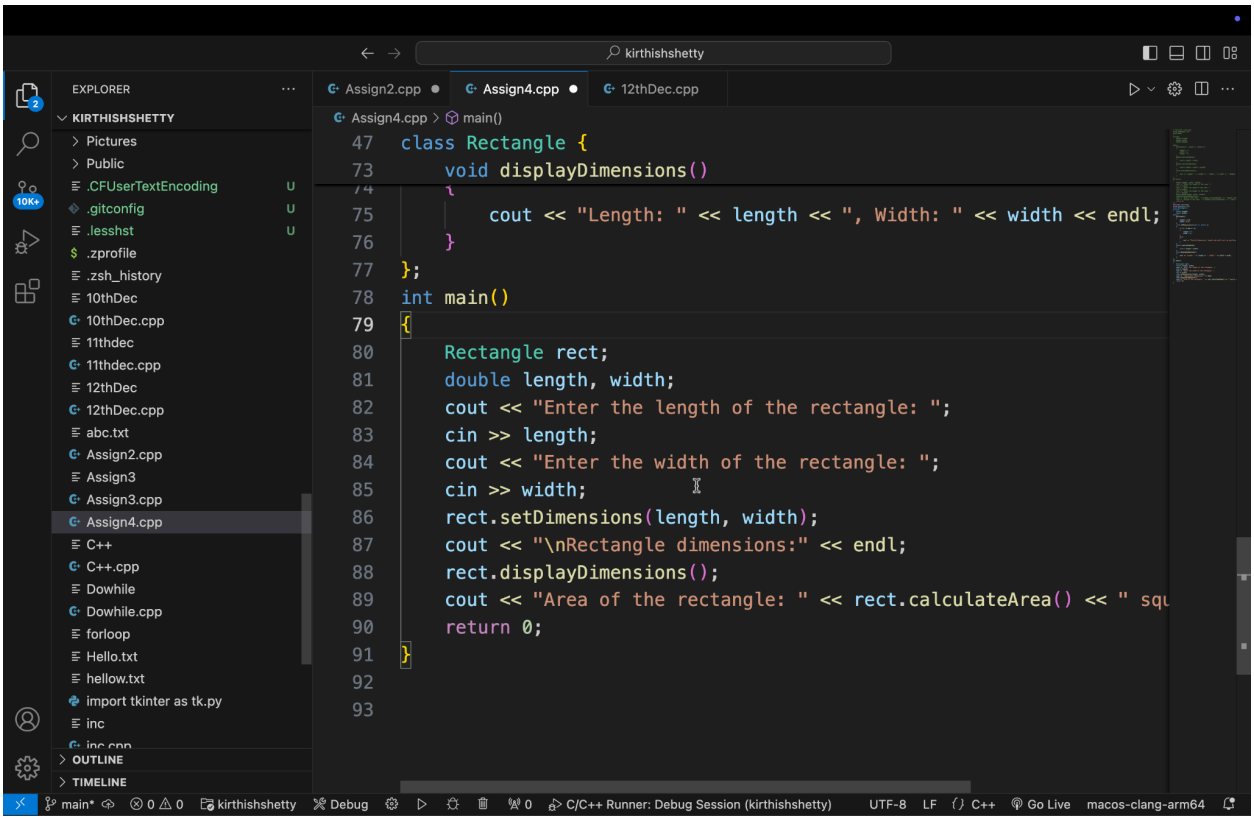
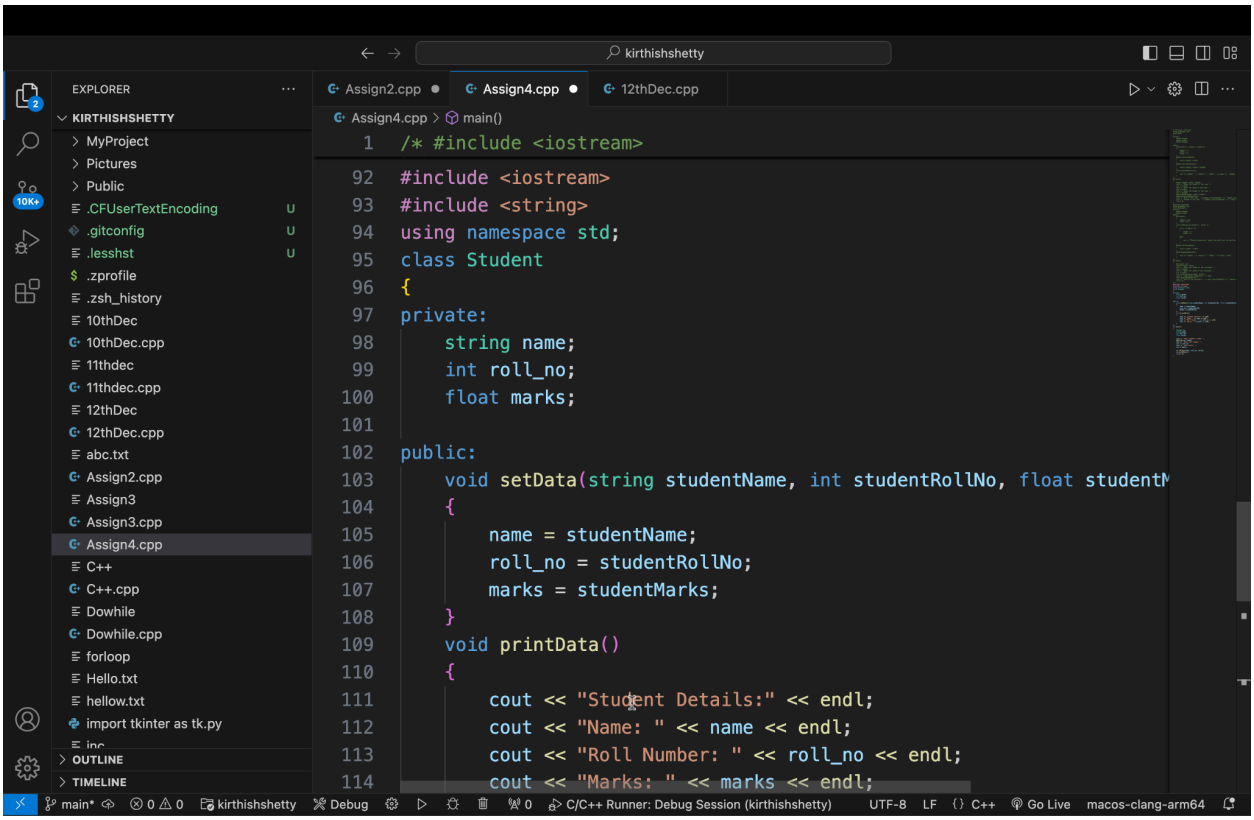


3.Create a class called Student, and create 2 member function setData and printData, take 3 data members name,roll_no and marks.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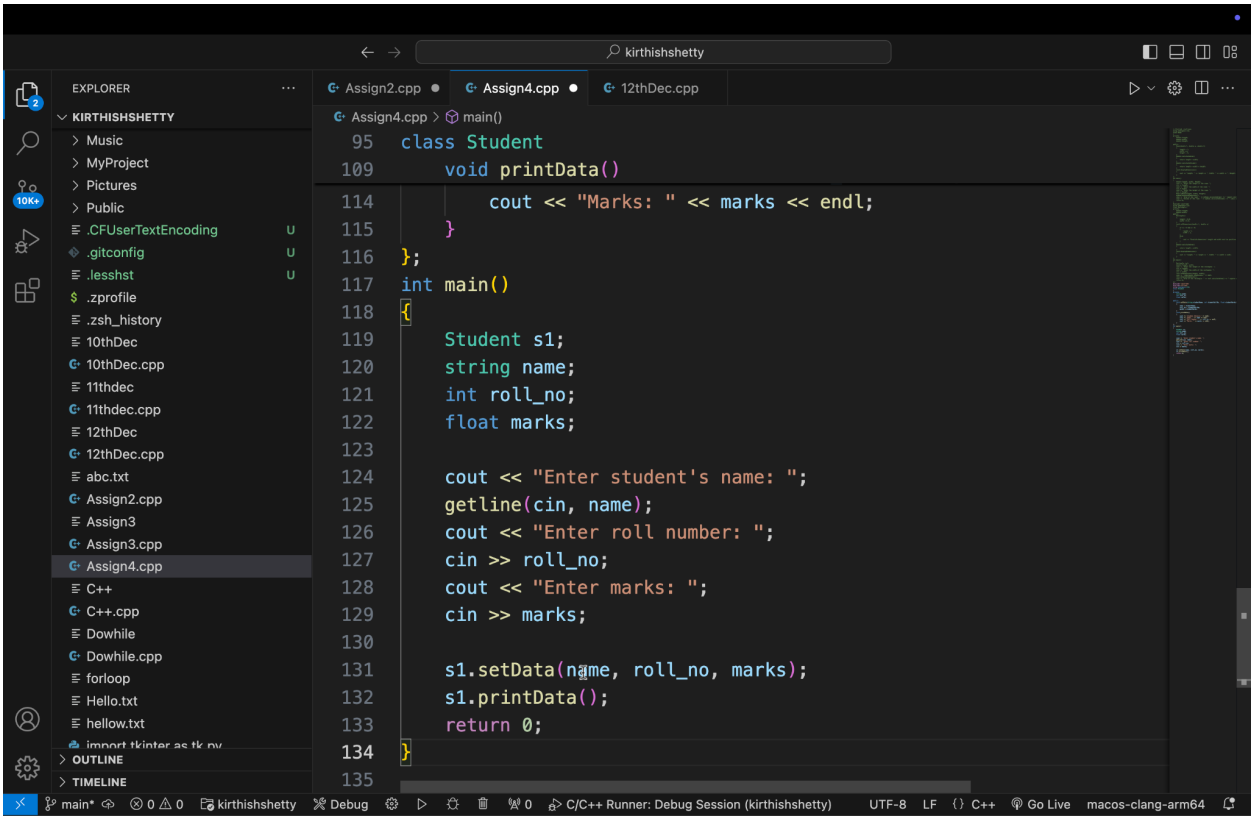
OUTLINE
TIMELINE
Assign2.cpp
Assign4.cpp
12thDec.cpp
Assign4.cpp > main()
1 /* #include <iostream>
92 #include <iostream>
93 #include <string>
94 using namespace std;
95 class Student
96 {
97 private:
98 string name;
99 int roll_no;
100 float marks;
101
102 public:
103 void setData(string studentName, int studentRollNo, float studentM
104 {
105 name = studentName;
106 roll_no = studentRollNo;
107 marks = studentMarks;
108 }
109 void printData()
110 {
111 cout << "Student Details:" << endl;
112 cout << "Name: " << name << endl;
113 cout << "Roll Number: " << roll_no << endl;
114 cout << "Marks: " << marks << endl;
main* 0 0 kirthishshetty Debug 0 C/C++ Runner: Debug Session (kirthishshetty) UTF-8 LF C++ Go Live macos-clang-arm64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OUTLINE
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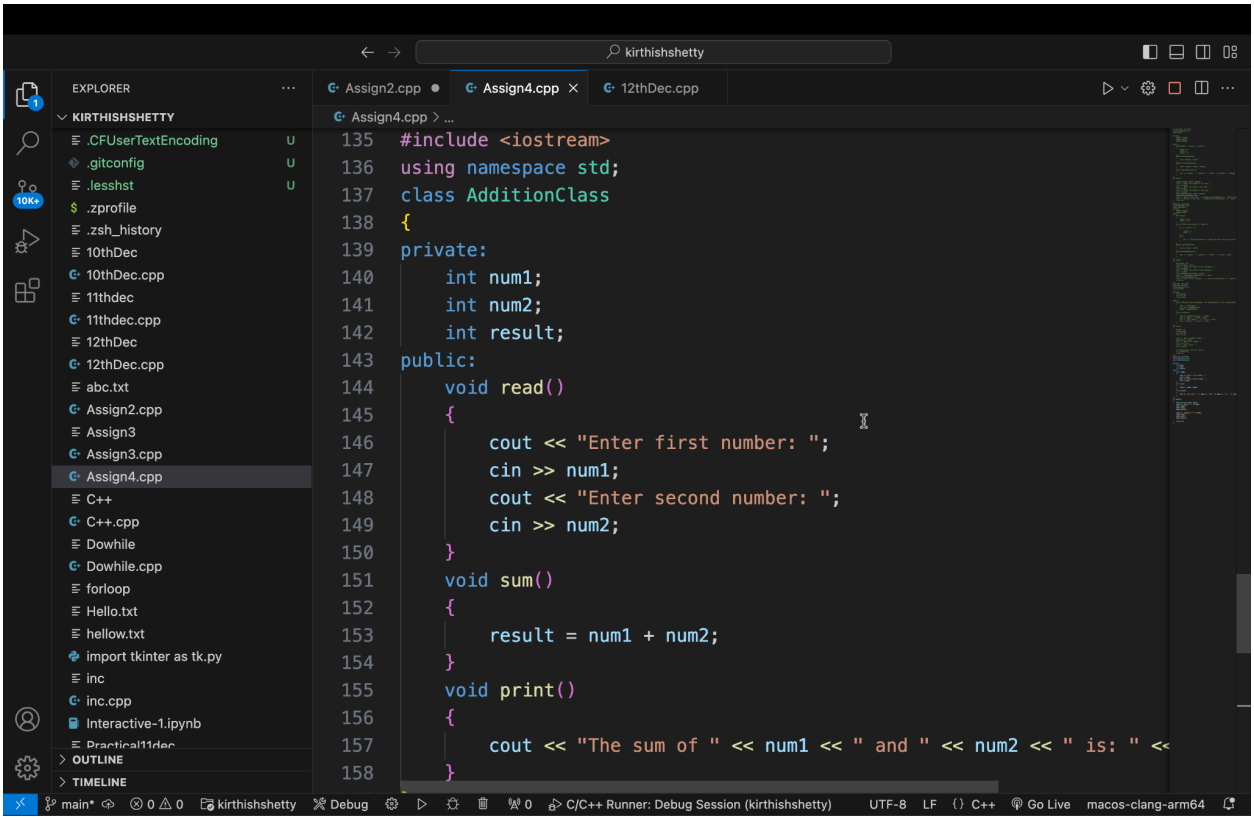
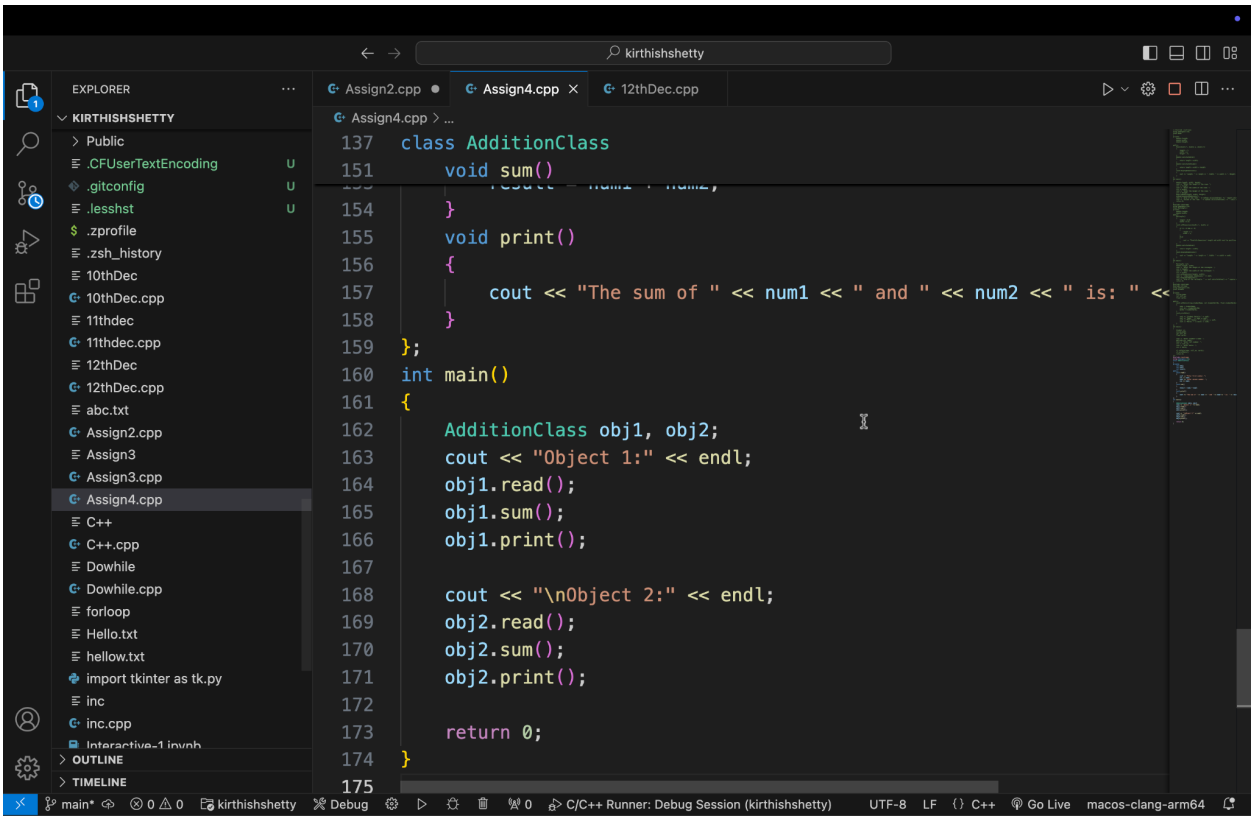
12thDec.cpp
Assign4.cpp > main()
95 class Student
109 void printData()
114 cout << "Marks: " << marks << endl;
115 }
116 };
117 int main()
118 {
119 Student s1;
120 string name;
121 int roll_no;
122 float marks;
123
124 cout << "Enter student's name: ";
125 getline(cin, name);
126 cout << "Enter roll number: ";
127 cin >> roll_no;
128 cout << "Enter marks: ";
129 cin >> marks;
130
131 s1.setData(name, roll_no, marks);
132 s1.printData();
133 return 0;
134 }
main* 0 0 kirthishshetty Debug 0 C/C++ Runner: Debug Session (kirthishshetty) UTF-8 LF C++ Go Live macos-clang-arm64

4.Create a class called AdditionClass, define data members num1, num2 and result, define member functions void read(), void sum(), void print() respectively. Create object obj1and obj2 in main method and show the execution.

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inc.cpp
OUTLINE
TIMELINE
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Assign4.cpp > ...
class AdditionClass
void sum()
}
void print()
{
cout << "The sum of " << num1 << " and " << num2 << " is: " <<
}
};
int main()
{
AdditionClass obj1, obj2;
cout << "Object 1:" << endl;
obj1.read();
obj1.sum();
obj1.print();
cout << "\nObject 2:" << endl;
obj2.read();
obj2.sum();
obj2.print();
return 0;
}
main*
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