

Assignment 4: Function Overloading

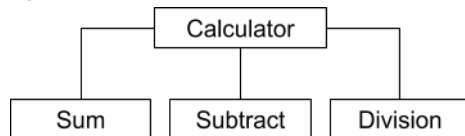
Note: You can use the inbuilt functions, but you should know the logic behind it.

4.1 Create a class 'Student' with three data members which are name, age and address. The constructor of the class assigns default values: name as "unknown", age as '0' and address as "not available". It has two members with the same name 'setInfo'. First method has two parameters for name and age and assigns the same whereas the second method takes three parameters which are assigned to name, age and address respectively. Print the name, age and address of 10 students.

(Hint - Use array of objects)

4.2 WAP in Java to prove / disprove that the "main" method can be overloaded.

4.3



Create a class Calculator with function `calculate()` is a base class of Sum, Subtract, and Division. In Sum class function `calculate()` is overloaded as `calculate(int a, int b, int c)` similarly `calculate()` function is overloaded in Subtract as `calculate(int a, int b)` and division as `calculate(float a, float b)`.

Create the Main class which call all overloaded function with the object of the base class.

4.4 Create a class Info with constructor overloaded such as `Info()`, `Info(int age)`, `Info(String address)`, `info(String fName, String lName)`.

Create another class Main, In Main class if you create an object of Info class with a default constructor that prints all information without call any overloaded constructor.

(Hint: Use this keyword)

assignment4

Updated 3 days ago by Mayank and 2 others

followup discussions for lingering questions and comments

☒ Resolved ☐ Unresolved



Anonymous 2 days ago

In 4.1:

What do the terms "data members" and "members" mean?



Mayank 17 hours ago In short: data members are the ints/floats/chars etc. we declare in a class. Member functions are functions() that we write inside a class which we call from main using the class objects.

Data members are variables or constants. They can be an int ,bool,float , array even an object of another class.

Member functions however are a set of code lines which complete a specific task. It could have a return type of int bool... but it can also return no value (void)

☒ Resolved ☐ Unresolved



Anonymous 12 hours ago

4.4:

Create another class Main, In Main class if you create an object of Info class with a default constructor that prints all information without call any overloaded constructor.

this constructor is of Main class right?

ie the Main class creates an object of Info Class and prints its info?

then what is meant by without call any overloaded constructor?



Pranay Kumar Saha 12 hours ago In **Main** class, you have to call an only default constructor of **Info**; so write a definition of default constructor such a way that it calls all overloaded constructor.

You don't have permission to call overloaded constructor into a **Main** class



Anonymous 11 hours ago Just to Clarify,

1) you want the default constructor `info()` to call `Info(int age)`, `Info(String address)`, `info(String fName, String lName)`.

or

2) `Main()` which is default constructor of class **Main** to call `info()` ,`Info(int age)`, `Info(String address)`, `info(String fName, String lName)` by creating different objects of Info class?

if 1) then can you please tell me what its called? im unsure if it was taught in lecture.