**Assignment 4.1**

**Problem Statement**

**1) Write a java code with the class named ‘acad’ and a method ‘main’. Hard Code the program**

**with two integers and print the sum of those two.**

refer to java code acad.java check in as GitHub code

**2) Rewrite the above code, where, inputs are provided by the user at runtime and the output is**

**printed.**

refer to java code acad2.java check in as GitHub code

**3) Write a program with method name sum() that accepts two parameters from user and print**

**the sum of two numbers. Output format should be as:**

**First number is:**

**Second number is:**

**Sum is:**

refer to java code acad3.java check in as GitHub code

**4) Write a program to accepts two numbers from stdin and find all the odd as well as even numbers present in between them.**

refer to java code acad4.java check in as GitHub code

**5) Joe is scared to go to school. When her dad asked the reason, joe said she is unable to**

**complete the task given by her teacher. The task was to find the “first 10 multiples” of the**

**number entered from stdin . Eg:**

**Input: 3**

**O/p:**

**3 x 1 = 3**

**3 x 2 = 6**

**………**

**………**

**…….**

**….**

**3 x 10 = 30**

**Help Joe in completing the task!**

refer to java code acad5.java check in as GitHub code

**6) Write a program consisting method sum() and demonstrate the concept of method overloading using this method.**

refer to java code acad6.java check in as GitHub code

**7) Can you overload a method with same return type.? Explain your answer with proper logic.**

Method Overloading means to have two or more methods with same name in the same class with different arguments. The benefit of method overloading is that it allows you to implement methods that support the same semantic operation but differ by argument number or type.

These are the following rules for overloading of a method

* Overloaded methods MUST change the argument list
* Overloaded methods CAN change the return type
* Overloaded methods CAN change the access modifier
* Overloaded methods CAN declare new or broader checked exceptions
* A method can be overloaded in the same class or in a subclass

It's not possible to have a method with same parameters and different return type. Compiler throws error in the below case(Duplicate method).

**8) Write a program in java using Arrays, that sorts the element in descending order.–**

refer to java code acad8.java check in as GitHub code