Experiment 2.1

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Branch: CSE **Section/Group:6B**
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Subject Name:Java Program Lab **Subject Code:20CSP-219**

1) Aim/Overview of the practical:

Write a program to differentiate between method overloading and method overriding.

2) Task to be done/ Which logistics used:

To write a program to differentiate between method overloading and method overriding.

3) Algorithm/Flowchart (For programming based labs):

4) Steps for experiment/practical/Code:

Method Overloading:

```
package com.company;

public class MethodOverloading {
    static int add(int a, int b){return a+b;}
    static float add(float a, float b,float c){return a+b+c;}
    static double add(double a, double b,double c,double d){return a+b+c+d;}
    public static void main(String[] args) {
        System.out.println("-----> Method Overloading<-----");
        System.out.println("Sum of int a+b: "+add( a: 9, b: 7));
        System.out.println("Sum of float a+b+c: "+add( a: 9.2f, b: 7.3f, c: 3.5f));
        System.out.println("Sum of double a+b+c+d: "+add( a: 6.6d, b: 7.7d, c: 12.6d, d: 4.6d));
    }
}
```

Method Overriding:

```
class Human {
    void eat() {
        System.out.println("By eating food human get energy");
    }
}
class Harry extends Human {
    void study() {
        System.out.println("Rohan is studying for his exam!");
    }
}
class Overriding {
    public static void main(String args[]) {
        System.out.println("-----> Method Overriding <-----");
        Harry d = new Harry();
        d.study();
        d.eat();
    }
}
```

5. Observations/Discussions/ Complexity Analysis:

6. Result/Output/Writing Summary:

Method Overloading:

```
-----> Method Overloading<-----
Sum of int a+b: 16
Sum of float a+b+c: 20.0
Sum of double a+b+c+d: 31.5
```

Method Overriding:

```
-----> Method Overriding <-----
Rohan is studying for his exam!
By eating food human get energy
```

Learning outcomes (What I have learnt):

1. **Learnt about java programming language.**
2. **Learnt about the method overloading and overriding.**
3.
4.
5.

Evaluation Grid (To be created as per the SOP and Assessment guidelines by the faculty):

Sr. No.	Parameters	Marks Obtained	Maximum Marks
1.			
2.			
3.			