**Experiment 2**

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**Branch: BCA**    **Section/Group: 2A**

**Semester: 4**  **Date of Performance: 25 FEB**

**Subject Name: IP LAB**   **Subject Code: CAP 256**

1. **Aim/Overview of the practical: Demonstrate method overloading (Question no. 1).**
2. **Task to be done:** Write a program of Method Overloading by Creating a class named 'PrintNumber' to print various numbers of different data types by creating different methods with the same name 'printn' having a parameter for each data type.
3. **Algorithm/Flowchart :**

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| **Create a class.**  **Define all variable in it.**  **Create another class.**  **Define main function in it.**  **Create an object and assign upper class to it.**  **Write the code.**  **Use javac to compile you file.java**  **Use command java class name to execute the file.** |

1. **Dataset: Classes and Objects**
2. **Code for experiment/practical:**

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| **#code** |
| class printing  {  int add(int a, int b)  {  return a+b;  }    double add(double a, double b)  {  return a+b;  }  String add(String a, String b)  {  String x= a;  String y=b;  String final\_a = String.format(x+y);  return final\_a;  }    }    class printing\_answer  {  public static void main(String[] args) {  printing pr = new printing();    String answer1 = pr.add("hello","world");  int answer2 = pr.add(10,25);  double answer3 = pr.add(25.44,69.51);    System.out.println(answer1);  System.out.println(answer2);  System.out.println(answer3);    }  } |

1. **Result/Output/Writing Summary:**

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| **#output 1** |
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1. **Aim/Overview of the practical: Demonstrate method overloading (Question No. 2)**
2. **Task to be done:**  Create a class to print the area of a square and a rectangle. The class has two methods with the same name but different number of parameters. The method for printing area of rectangle has two parameters which are length and breadth respectively while the other method for printing area of square has one parameter which is side of square.
3. **Algorithm/Flowchart :**

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| **Create a class.**  **Define all variable in it.**  **Create another class.**  **Define main function in it.**  **Create an object and assign upper class to it.**  **Write the code.**  **Use javac to compile you file.java**  **Use command java class name to execute the file.** |

1. **Dataset: Classes and Objects**
2. **Code for experiment/practical:**

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| **#Code** |
| package method\_overloading;  import java.util.Scanner;  public class area {  int areap(int a)  {  return a\*a;  }  int areap(int b, int c)  {  return b\*c;  }    }    class find\_area  {  public static void main(String[] args)  {  area ar = new area();  Scanner sc = new Scanner(System.in);  System.out.println("Enter your choice: \n 1. area of square \n 2. area of rectangle");  int user =sc.nextInt();  if (user == 1)  {  System.out.println("\n\*\*\*Enter only the value of side for the Square\*\*\*\n");  int sq= sc.nextInt();  int sq\_area = ar.areap(sq);  System.out.println("Area of the square is: "+ sq\_area);  }  else  {  System.out.println("\n\n \*\*\*Enter both length and breadth for rectangle \*\*\*\n");  int re1, re2;  System.out.println("Enter the length of rectangle" );  re1 = sc.nextInt();  System.out.println("Enter the bredth of rectangle" );  re2 = sc.nextInt();  int area\_rect = ar.areap(re1, re2);  System.out.println("The area of the rectangls is: "+ area\_rect);  }  }  } |

1. **Result/Output/Writing Summary:**

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| **#output** |
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**Learning outcomes (What I have learnt):**

* 1. **What is Method over loading**
  2. **How to use method overloading in different ways.**