Bigdata Assignment 2.1

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.
Ans -

```
class acad
{
   public static void main(String[] args) {
      int a =2 , b= 3;
      System.out.println(a+b);
   }
}
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program1$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program1$ java acad
5
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program1$
```

2. Rewrite the above code, where, inputs are provided by the user at runtime and the output is printed.
Ans -

```
class acad
{
   public static void main(String[] args) {
      int a = Integer.parseInt(args[0]);//Input from commanline
      int b = Integer.parseInt(args[1]);//Input from commanline
      System.out.println(a+b);
   }
}
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program2$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program2$ java acad 4 8
12
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program2$
```

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:
Ans-

```
import java.util.Scanner;
class acad
{
   static void sum(int x,int y)
   {
      System.out.println("First number is: "+x);
      System.out.println("Second number is: "+y);
      System.out.println("Sum is: "+(x+y));
   }
   public static void main(String[] args) {
      int a = Integer.parseInt(args[0]); //input from commandline
      int b = Integer.parseInt(args[1]); //input from commandline
      sum(a,b);
   }
}
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program3$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program3$ java acad 23 45
First number is: 23
Second number is: 45
Sum is: 68
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program3$
```

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

```
 import java.util.Scanner;
class acad
{
   public static void main(String[] args) {
      Scanner scan = new Scanner(System.in);
      System.out.println("Enter 2 nos");
     //Input
      int min = scan.nextInt();
```

```
        int max = scan.nextInt();
                if(min>max){
                        int t = min;;
                        min = max;
                        max = t;
                }
                System.out.println("Odd Numbers: ");
                for(int i=min;i<=max;i++){
                        if(i % 2 != 0) {
                                System.out.println(i);
                        }
                }
                System.out.println("Even Numbers: ");
                for(int i=min;i<=max;i++){
                        if(i % 2 == 0) {
                                System.out.println(i);
                        }
                }

    }
}
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program4$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program4$ java acad
Enter 2 nos
3
9
Odd Numbers:
3
5
7
9
Even Numbers:
4
6
8
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program4$
```

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

Ans -

```
import java.util.Scanner;
class acad
{
	public static void main(String args[]) {
		System.out.println("Enter a no : ");
		Scanner scan = new Scanner(System.in);
		int n = scan.nextInt(); //input
		for(int i=1;i<=10;i++)
		{
			System.out.println(n + " X " + i + " = " + (n*i));
		}
	}
}
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program5$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program5$ java acad
Enter a no :
5
5 X 1 = 5
5 X 2 = 10
5 X 3 = 15
5 X 4 = 20
5 X 5 = 25
5 X 6 = 30
5 X 7 = 35
5 X 8 = 40
5 X 9 = 45
5 X 10 = 50
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program5$
```

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

Ans-

```
import java.util.Scanner;
class acad
{
   static void sum(int a, int b) {
   System.out.println(a+b);
   }
   static void sum(double a, double b) {
      System.out.println(a+b);
   }
  public static void main(String args[]) {
     sum(4,9);
     sum(7.8,10.3);
```

//Here , sum function takes either 2 int arguments or 2 double type arguments,hecne overloading concept is implemented.

```
    }
  }
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program6$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program6$ java acad
13
18.1
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program6$
```

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

Ans – It does not matter ,we can overload a method with same return type or different return type. As oveloading of methods depends on different number of arguments, type of arguments and the sequence of arguments. As the compiler will generate an error when it does not find matching parameter function . So it does not depnd on the return type.

8. Write a program in java using Arrays, that sorts the element in decreasing order.

Ans -

```
import java.util.Scanner;
import java.util.Arrays;
import java.util.Collections;
class acad
{
   public static void main(String args[])  {
      Scanner scan = new Scanner(System.in);
      System.out.println("Enter no of elemnts in the array");
      int n = scan.nextInt();
      System.out.println("Enter elements");
      Integer a[] = new Integer[n];
      for(int i=0;i<n;i++)
      {
         a[i] = scan.nextInt();
      }
      Arrays.sort(a, Collections.reverseOrder());
 /*Inbuilt function used to sort array in decreasing order*/
      System.out.println("After sorting");
      for(int i=0;i<n;i++)
      {
         System.out.print(a[i]+" ");
      }
      System.out.println();
```

```
    }
}
```

```
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program8$ javac acad.java
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program8$ java acad
Enter no of elemnts in the array
5
Enter elements
2
4
1
7
6
After sorting
7 6 4 2 1
ritesh@ritesh-Inspiron-5558:~/Desktop/Acadgild bigdata hadoop/A-2.1/Program8$
```