

Task 1

```
no usages
void copy_method(Employee employee)
{
    this.name=employee.name;
    this.city = employee.city;
    this.gender = employee.gender;
    this.age=employee.age;
    this.salary=employee.salary;
}

1 usage
Employee get_copy_obj(Employee obj){
    return obj;
}

no usages
public class lab5task1{
    no usages
    public static void main(String[] args) {
        Employee employee1=new Employee(name: "Younis", city: "Daharki", gender: "Male", age: 20, salary: 40000);
        Employee employee2=employee1.get_copy_obj(employee1);
    }
}
```

Task 2

```
public int getNum2(){return num2;}

no usages
public int getNum3(){return num3;}

1 usage
int sum1(){return num1+num2;}
1 usage
int sum2(){return num1+num2+num3;}
1 usage
int multiply1(){return num1*num2;}
1 usage
int multiply2(){return num1*num2+num3;}

no usages
public class lab5task2 {
    no usages
    public static void main(String[] args) {
        Calculator obj1=new Calculator(1,2);
        Calculator obj2=new Calculator(1,2,3);

        System.out.println("Sum of 2 Numbers : "+obj1.sum1());
        System.out.println("Sum of 3 Numbers : "+obj2.sum2());
        System.out.println("Multiplication of 2 Numbers : "+obj1.multiply1());
        System.out.println("Multiplication of 3 Numbers : "+obj2.multiply2());
    }
}
```

"C:\Program Files\Java\jdk-19\bin\
Sum of 2 Numbers : 3
Sum of 3 Numbers : 6
Multiplication of 2 Numbers : 2
Multiplication of 3 Numbers : 5
Process finished with exit code 0

Task 3

```
no usages
public class lab5task3 {
    no usages
    public static void main(String[] args){System.out.println("Main with String[]");}

    no usages
    public static void main(String args){System.out.println("Main with String");}

    no usages
    public static void main(){System.out.println("Main without args");}

    // gives output on Main with String[]
    // gives empty output on Main with String
    // gives empty output on Main without args
}
```

C:\Program Files\Java\jdk-19\bin
Main with String[]
Process finished with exit code 0

Task 4

```
void sum(int a,long b)
{
    System.out.println("a method invoked");
}

no usages
void sum(long a,int b)
{
    System.out.println("b method invoked");
}

no usages
public static void main(String[] args) {
    lab5task4 obj = new lab5task4();
    obj.sum(20,20);

    // Give this error
    // java: reference to sum is ambiguous
    // both method sum(int,long) in lab5task4 and method sum(long,int) in lab5task4 match
}
```

"C:\Program Files\Java\jdk-19\bin
Main with String[]
Process finished with exit code 0

3 12:31 AM with 1 error 2 sec, 660 ms C:\Users\Muhammad Mubeen\Desktop\younis\lab5task4.java:13:12
java: reference to sum is ambiguous
both method sum(int,long) in lab5task4 and method sum(long,int) in lab5task4 match

Task 5

```
1 usage
int sq(int num1) {
    return num1*num1;
}

1 usage
float sq(float num2) {
    return num2*num2;
}

1 usage
double sq(double num3) {
    return num3*num3;
}

no usages
public class lab5task5
{
    no usages
    public static void main(String[] args)
    {
        Sqare obj = new Sqare();

        System.out.println("Sqare of Integer = " + obj.sq(num1: 10));
        System.out.println("Sqare of Float = " + obj.sq(num2: 10f));
        System.out.println("Sqare of Double = " + obj.sq(num3: 10d));
    }
}
```

Task 6

```
void m1(int num1, char ch1) {
    System.out.println("Sequence int then Char");
    System.out.println("Number 1 = "+num1);
    System.out.println("Character 1 = "+ch1);
}

1 usage
void m2(char ch2, int num2) {
    System.out.println("Sequence Char then Int");
    System.out.println("Character 2 = "+ch2);
    System.out.println("Number 2 = "+num2);
}

}

no usages
public class lab5task6
{
    no usages
    public static void main(String[] args)
    {
        int_char obj1 = new int_char();
        int_char obj2 = new int_char();

        obj1.m1(num1: 10, ch1: 'M');
        System.out.println();
        obj2.m2(ch2: 'Y', num2: 20);
    }
}
```