Practical 03 - Encapsulation

Develop a code for the following scenario.

“An encapsulated class contains three variables to store Name, Age and Salary of the employee. Evelop getters and setters to set and get values . Develop a test class to test your code.”

```
public class Employee
{
   //variables
   private String name;
   private int age;
   private float salary;

   //getters and setters
   public void setName(String n)
   {
      name=n;
   }
   public String getName()
   {
      return name;
   }

   public void setAge(int a)
   {
      age=a;
   }
   public int getAge()
   {
```

```
        return age;
    }

    public void setSalary(float s)
    {
        salary=s;
    }
    public float getSalary()
    {
        return salary;
    }
}

public class Test
{
    public static void main(String[] args)
    {
        Employee e1=new Employee();
        e1.setName("Amal perera");
        e1.setAge(32);
        e1.setSalary(125000.00f);

        System.out.println("Employee name: "+e1.getName());
        System.out.println("Employee age: "+e1.getAge());
        System.out.println("Employee salary: "+e1.getSalary());
```

```
    }
}
```

Now modify the same code by trying to replace the setters using a constructor.

```
public class Employee
{
    //variables
    private String name;
    private int age;
    private float salary;

    //constructor
    public Employee(String name,int age,float salary)
    {
        this.name=name;
        this.age=age;
        this.salary=salary;
    }
}
```

Code for the last example has been discussed during the class. We need the following Output. (Use Netbeans code generation option where necessary)

Employee Name: xxxxx (Use setter to set and getter to retrieve)

Basic Salary: xxxx (Use setter to set and getter to retrieve)

Bonus: xxxx (You may use the constructor to pass this value)

Bonus Amount: xxxxx (Develop a separate method to calculate Bonus amount. Bonus amount is the total of Bonus and Basic Salary)

E.g.

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Employee Name: Bogdan
Basic Salary: 50000
Bonus: 10000
Bonus Amount: 60000

```
public class Test
{
   //data
   private String empName;
   private float bsalary;
   private float bonus;
   //methods
   public void setempName(String n)
   {
      empName=n;
   }
   public String getName()
   {
      return empName;
   }
   public void setBsalary(float s)
   {
      bsalary=s;
   }
   public float getSalary()
   {
      return bsalary;
   }
   public Test (float b)
```

```
    {
        bonus=b;
    }
    public float getBonus()
    {
        return bonus;
    }
    public float nSalary()
    {
        float netSalary=bsalary+bonus;
        System.out.println("Bonus Amount: "+netSalary);
        return netSalary;
    }
}

public class EncapTest
{
    public static void main(String[] args)
    {
        Test t1=new Test (10000.00f);
        t1.setempName("Bogdan");
        t1.setBsalary(50000.00f);
        System.out.println("Employee Name: "+t1.getName());
        System.out.println("Basic Salary: "+t1.getSalary());
        System.out.println("Bonus:"+t1.getBonus());
        t1.nSalary();
    }
}
```