**Practical 03 – Encapsulation**

Exercise 3-1:

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 Test {

private String Name;

private int Age;

private double Salary;

public void setName(String newName)

{

Name=newName;

}

public void setAge(int newAge)

{

Age = newAge;

}

public void setSalary(double newSalary)

{

Salary = newSalary;

}

public String getName()

{

return Name;

}

public int getAge()

{

return Age;

}

public double getSalary()

{

return Salary;

}

}

public class TestObj {

public static void main(String[] args) {

Test t1 = new Test();

t1.setName("Menuka");

t1.setAge(22);

t1.setSalary(2000000);

System.out.print("Employee name: "+t1.getName()+ " Age: "+t1.getAge()+ " Salary: "+t1.getSalary());

}

}

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

public class TestConstructor {

private String Name;

private int Age;

private double Salary;

public TestConstructor(String Name,int Age,double Salary)

{

this.Name=Name;

this.Age=Age;

this.Salary=Salary;

}

public void display()

{

System.out.println("Name: "+Name+ " Age: "+Age+ " Salary: "+Salary);

}

}

public class TestObj {

public static void main(String[] args) {

TestConstructor t1 = new TestConstructor("Menuka",22,2000000);

t1.display();

}

}

Exercise 3-2:

public class Employee {

private String Name;

private double Bsalary;

private int bonus;

public Employee(String Name, double Bsalary,int bonus)

{

this.Name=Name;

this.Bsalary=Bsalary;

this.bonus=bonus;

}

public String getName()

{

return Name;

}

public double getBsalary()

{

return Bsalary;

}

public int getbonus()

{

return bonus;

}

public double calculateBonusAmount()

{

return Bsalary+bonus;

}

}

public class EmpObj {

public static void main(String[] args) {

Employee e1= new Employee("Bogdan",50000,10000);

System.out.println("Name: "+e1.getName()+ " Basic Salary: "+e1.getBsalary()+ " Bonus: "+e1.getbonus()+ " Bonus Amount: "+e1.calculateBonusAmount());

}

}