JAVA WORKSHOP

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01. Obeject - Oriented programming is a paradigm based on the concept of “object”, which can contain data and code: data in the form of fields, and code, in the form of procedures. A feature of objects is that an object is that an object’s own procedures can access and often modify the data fields of itself.

OOP focuses on the objects that developers want to manipulate rather than the logic required to manipulate them. This approach to programming is well-suited for programs that are large. Complex and actively updated or maintained.

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02.

- **Class**

The class is a group of similar entities. It is only an logical component and not the physical entity. For example, if had a class called “Expensive Cars” it could have objects like Mercedes, BMW, Toyota, etc. its properties can be price or speed of these cars. While the methods may be performed with these cars are driving, reverse, braking etc.

- **Object**

  An object can be defined as an instance of a class, and there can be multiple instances of a class in a program.

- **Inheritance**

  Inheritance is an OOPS concept in which one object acquires the properties and behaviors of the parents object.

- **Polymorphism**

  Polymorphism refers to the ability of a variables, object or function to take on multiple forms.

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- **Abstraction**

  An abstraction is an act of representing essential features without including background details. It is a technique of creating a new data type that is suited for a specific application.

- **Encapsulation**

  Encapsulation is a relationship between two objects. It defines the diversity between objects. In this OOP concept, all objects have their separate lifecycle, and there is no owner.

- **Association**

  Association is a relationship between two objects. It defines the diversity between objects.

- **Interface**

  The language and codes that the applications use the communication with each other and the with the hardware.

- **Information hiding**

  The process of hiding details of an object or function. Information hiding is a powerful programming technique because it reduces complexity.

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03.

i)

```
public class Employee
{

public Employee()
{
name = "Bill Smith";
}

public Employee()
{
salary = $35000.00;
}
```

ii)

```
public class Employee
 {

 public Display Details ()
 {
```

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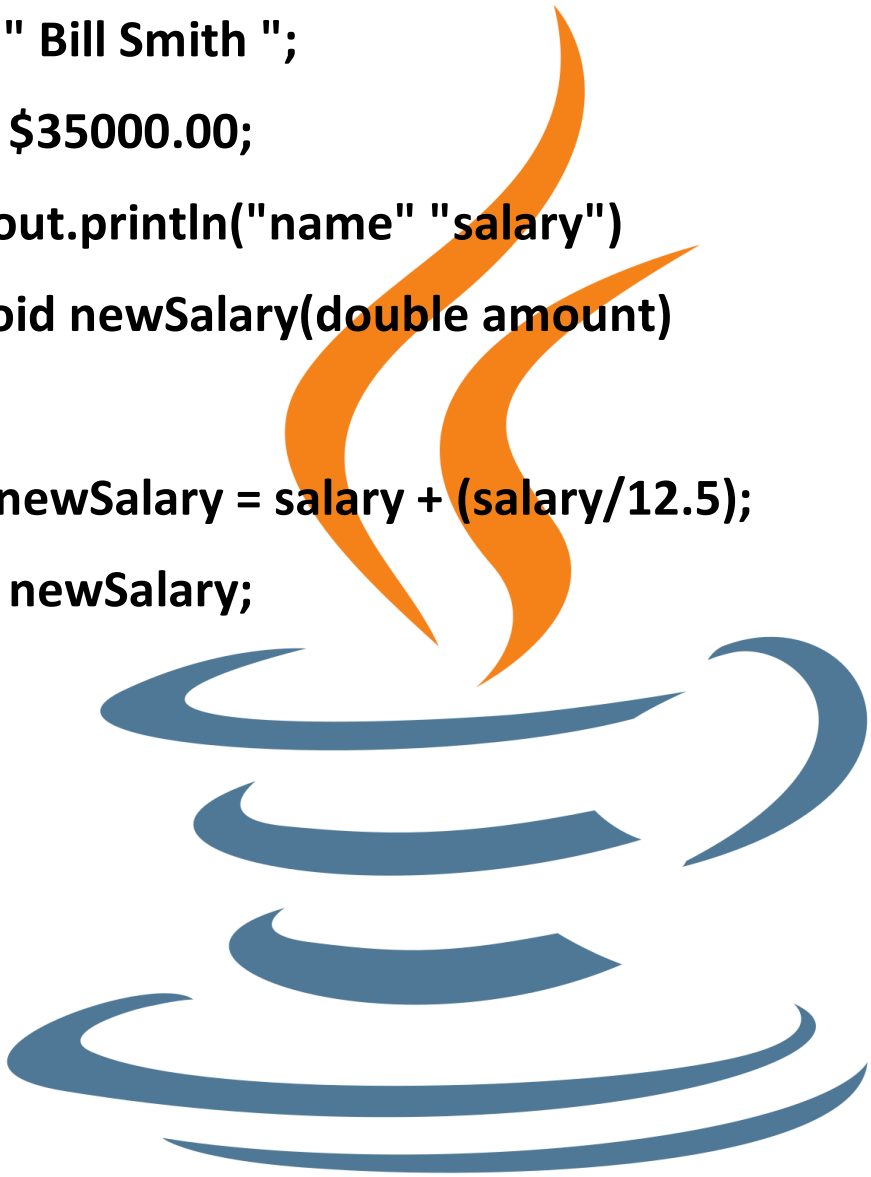
```
name = " Bill Smith ";
salary = $35000.00;
System.out.println("name" "salary")
public void newSalary(double amount)
{
double newSalary = salary + (salary/12.5);
salary = newSalary;
}
```



Java