

1. Define class in Java.

Ans: A class - in the context of Java is a template used to create objects and to define object data types and methods. class is a group of variables of different data types and a group of methods. It is not a real-world entity. It is just a template or blueprint from which objects are created. class doesn't occupy memory.

A class in Java can contain:

- ▣ Data member
- ▣ Method
- ▣ Constructor
- ▣ Nested class
- ▣ Interface.

2. How to define class. (Declaration process)

Ans: To declare a class in Java, use the following format :

```
class ClassName {
    // class body
}
```

The name of the class should be followed by the keyword class. The body of the class is enclosed within curly braces {}. All the data members and member functions of the class are declared inside the body of the class.

Example —

```
public class Person {
    String name;
    void printName() {
```

```
System.out.println(name);
```

```
}
```

```
}
```

3. Define object.

Ans: An object in Java is essentially a block of memory that contains space to store all the instance variables. Creating an object is also referred to as instantiating an object.

4. How to declare object.

Ans: Objects in Java are created using the new operator. This is the most common and basic way of creating an object in Java.

In this method, we can call constructors with parameters or with no arguments.

Syntax: `class_name object_name = new class_name();`

Example:

```
public class Main {
```

```
    String s = "Hello World";
```

```
    public static void main(String args[]) {
```

```
        Main a = new Main(); //creating an object
```

```
        System.out.println(a.s);
```

```
    }
```

```
}
```



5. Define method.

Ans: A method in Java is a block of code that, when called, performs specific actions mentioned in it. For instance, if you have written instructions to draw a circle in the method, it will do that task. You can insert values or parameters into methods, and they will only be executed when called.

6. How to declare a method.

Ans: Method declaration have four basic parts:

- ☐ The name of the method
- ☐ The type of the value the method returns.
- ☐ A list of parameters
- ☐ The body of the method.

Example:

```
class Rectangle
```

```
{
```

```
    int length;
```

```
    int width;
```

```
    void getData (int x, int y) // method
```

Declaration

```
{
```

```
    length = x;
```

```
    width = y;
```

```
}
```

```
}
```