

# Interview Questions

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## 1. Why do we use OOPs?

- ❖ It gives clarity in programming and allows simplicity in solving complex problems.
- ❖ Data and code are bound together by encapsulation.
- ❖ Code can be reused, and it reduces redundancy.
- ❖ It also helps to hide unnecessary details with the help of Data Abstraction.
- ❖ Problems can be divided into subparts.
- ❖ It increases the readability, understandability, and maintainability of the code.

## 2. What are the differences between the constructor and the method?

Constructor	Method
It is a block of code that initializes a newly created object.	It is a group of statements that can be called at any point in the program using its name to perform a specific task.
It has the same name as the class name.	It should have a different name than the class name.
It has no return type.	It needs a valid return type if it returns a value; otherwise void.
It is called implicitly at the time of object creation	It is called explicitly by the programmer by making a method call
If a constructor is not present, a default constructor is provided by Java	In the case of a method, no default method is provided.

### 3. What are the main features of OOPs?

- ❖ Inheritance
- ❖ Encapsulation
- ❖ Polymorphism
- ❖ Data Abstraction

### 4. The disadvantage of OOPs?

- ❖ Requires pre-work and proper planning.
- ❖ In certain scenarios, programs can consume a large amount of memory.
- ❖ Not suitable for a small problem.
- ❖ Proper documentation is required for later use.

### 5. What is the difference between class and structure?

**Class:** User-defined blueprint from which objects are created. It consists of methods or sets of instructions that are to be performed on the objects.

**Structure:** A structure is basically a user-defined collection of variables of different data types.

### 6. What is the difference between a class and an object?

Class	Object
Class is the blueprint of an object. It is used to create objects.	An object is an instance of the class.
No memory is allocated when a class is declared.	Memory is allocated as soon as an object is created.
A class is a group of similar objects.	An object is a real-world entity such as a book, car, etc.
Class is a logical entity.	An object is a physical entity.
A class can only be declared once.	Objects can be created many times as per requirement.
An example of class can be a car.	Objects of the class car can be BMW, Mercedes, Ferrari, etc.