

Hello everyone, my name is **Thomas Broussard**. I thought it could be the minimum to introduce myself, as we will stay at least 33 hours together

I will be your java teacher during the next semester. To sum up my experience in Java, I've practised java for 5 years and I'm actually one of the technical project managers of my business unit

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The goal of this course.

This course should help you to acquire these skills

- Know how to design an Object-Oriented application
- Use standard tools for programming and diagramming
- Get a good base skill in Java

Course structure (1)

- **Lecture 0 (0.5 hr)** Presentation and Java Quizz
- **Lecture 1 (1.5 hrs)** Global introduction on Object-Oriented Programming
- **Lecture 2 (3 hrs)** Object-Oriented concepts, application with **Java**
- **Lecture 3 (1 hr)** Object-Oriented diagramming : **UML** overview
- **Lecture 4 (2 hrs)** Java fundamentals, keywords, available tools

Course structure (2)

- **Lecture 5 (3 hrs)** Numerical Data, Conditional Statements and Java
- **Lecture 6 (3 hrs)** Class-related operators, repetition statements
- **Lecture 7 (3 hrs)** String operations, files management
- **Lecture 8 (2 hrs)** Collections and Arrays, Sorting
- **Lecture 9 (3 hrs)** Exceptions and Errors handling
- **Lecture 10 (3 hrs)** Inheritance and polymorphism
- **Lecture 11 (3 hrs)** Design patterns
- **Lecture 12 (3 hrs)** Generics

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Lecture 1

Global introduction on Object-Oriented Programming

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Object Oriented Programming : why?

What already exists: **Procedural programming**

- A lot of code to make pieces of program work together
- A technical approach that lessen the code comprehension
- Big programs are difficult to maintain

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Object Oriented Programming : (human)

Object Oriented Programming : definition

The definition of the Object Oriented Programming, is that this kind of programming uses object

This said, what is an **Object**?

- Objects are a conceptual representation of existing things
- This makes the programming easier to approach because things are

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Object Oriented Programming : tools

We will use eclipse