

# Java Programming 2

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This course builds on the foundation of your previous Java 1 knowledge, delving into advanced programming concepts and techniques. It will enhance your skills as a Computer Science student by deepening your understanding of core Computer Science principles.

## Topics To Cover

- Functional programming
- Object oriented Programming
- Interface
- Generic
- Enums
- I/O and File handling
- Time and Space Complexity(Big O)
- Data Structure and Algorithms
- Recursions and Fibonacci Sequence
- Searching Algorithms (Linear, Binary and Tree)

## Continuous Assessment

We have a dedicated four-month period of active learning, during which we will continually build upon our knowledge. Assignments and lab work will be distributed throughout these four months. Assignments will be assigned during the first two weeks of each month, while lab activities will take place in the last two weeks of each month.

We will be using Google Classroom for assignments, so every student is expected to have a Google account and be enrolled in the class. For Programming 2, assignments will be labeled with the `prefix p2-assignment-1`. All assignments will be shared in Google Classroom and will be available for submission only until the specified due date. After the due date has passed, students will no longer be able to submit their work.

The lab sessions will allow students to apply what they have learned throughout the month to test their understanding of the material. Each lab session will last 15 to 20 minutes and will take place before the lecture. During this time, students will work independently to complete the assigned tasks.

The final exam will assess students' comprehensive understanding of the entire course. It will be divided into two sections: an objective section and a theory section. The exam will be written, but students are not required to write fully functional Java code. Instead, they are expected to explain concepts and write code with minimal concern for syntax errors, as these will not be strictly evaluated. However, students are encouraged to provide clear and logical responses when writing code answers in the answer booklet.

At the end of the term, each student will be tasked with building a program. This project will require students to utilize the knowledge they have gained throughout the term to create a functional program, accompanied by proper documentation. The project will be evaluated based on four key criteria: presentation, documentation, code structure, and the final output of the program.