

# Welcome to Software Design Principles

A brief overview of what you will learn in this course.

## What will you learn?

The goal of this unit is to introduce you to important software design principles used to engineer applications that are extensible, reliable, and maintainable. In this unit, you will be introduced to concepts such as UML, Design Patterns, SOLID Principles, and aspects of high-level design. Learning these concepts will improve your ability to architect professional-level systems.

After this unit, you will be able to:

- Describe key concepts and activities in the software design process.
- Explain the role of OOP in system design.
- Relate important design patterns to problems that they solve.
- Explain each of the SOLID principles.

Learning is social. Whatever you're working on, be sure to connect with the Codecademy community in the [forums](#). Remember to check in with the community regularly, including for things like asking for code reviews on your project work and providing code reviews to others in the [projects category](#), which can help to reinforce what you've learned.

## What should you know before starting this course?

This course will deal with many object-oriented concepts. You should have foundational knowledge in an object-oriented language before beginning this course. Examples of object-oriented languages include [JavaScript](#), [Java](#), or [C++](#).

We are excited for you to start your journey into software design principles!