

Welcome to this case study on optimizing code with generative AI!

As a software engineer, we will be working on a team with other developers that will likely review and use the code we write. It is for this reason that we must write high-quality code that is efficient, easy to read, maintain, and test. To ensure that our code is of good quality, we can use a generative AI tool (such as ChatGPT) to check it for us and correct it. You can see this in action in this case study where you will be given a piece of very poorly written Python code (likely resembling code written by someone with very little coding experience) that you will use generative AI to improve.

What will you learn?

In this case study, you will learn how to prompt ChatGPT to refactor a piece of code to be

- Efficient
- Maintainable
- Testable
- Readable

After you prepare your first draft, the best way to receive feedback and learn from others is to post your solution on the [Codecademy forums](#). At the end of this case study, you will be guided in where and how to share your work to receive feedback, and review the work of others!

What should you know before starting this case study?

- Knowledge of Python basics. If you need a refresher, check out this course: [Learn Python 3](#)
- Basic knowledge of ChatGPT. This course is a good primer: [Intro to ChatGPT](#)

Good luck!