

# Technical - Coding for Software Engineers

For our technical assessment, we will be asking you to refactor an existing application. This will take place in the form of a hands on coding exercise in either php, typescript, or python. The prompt is outlined below. Our goal is to see how you work in an existing codebase and the technical decisions you make to leave it better than you found it.

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## Problem: Refactor an Existing Order Flow App

Here you find a simple order flow application. It's able to create orders, do some calculations (totals and taxes), and manage them (approval/reject and shipment).

The old development team did not find the time to build a proper domain model but instead preferred to use a procedural style, building this anemic domain model. Fortunately, they did at least take the time to write unit tests for the code.

Your new CTO, after many bugs caused by this application, asked you to refactor this code to make it more maintainable and reliable.

## Agenda (1 hour)

### **10 minutes** - Review prompt

- You and an engineering lead will walk through the prompt and look through the code base in whatever language you choose (python, typescript, php)
- Ask any questions you feel are necessary to get started.

### **40 minutes** - Solution

- Take this time to address the prompt in the codebase.
- Talk through your decision making process.

### **10 minutes** - Follow up questions and hypothetical scenarios

- The engineering lead will ask follow up questions based on where you got in the process.