# Pinewood Technologies PLC Sample Refactoring Project

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# The Project

The ability to sell parts is a fundamental need of our customers. Handling these invoices, along with maintaining availability and stock information are crucial for the successful running of a parts department.

# The Challenge

The current functionality works, but could be better. There have been concerns raised within the team that this project is difficult to test and that bugs could easily be introduced when adding any new features.

The team have found that it is not currently possible to unit test the *CreatePartInvoice()* method. This has been highlighted as a major issue.

**Using your knowledge of OOP Principles, Design Patterns and Unit Testing, your priority is to refactor the *CreatePartInvoice()* method to make it more maintainable and demonstrate it is testable.**

If you are able you could consider where else unit tests might be appropriate within the project and feel free to refactor other areas of the code or add further unit tests.

**N.B** No changes should be made to the *PartAvailabilityClient* class or the *DMSClient.CreatePartInvoice()* method. These are your only limitations.

You should look to spend around an hour on this challenge. We are not looking for a perfect solution as we are more interested in the way that you work and the direction that you are headed in.

# The Next Step

Should you be successful in gaining a face-to-face interview following your sample submission, the changes you have made will form the basis of the conversation. This is your chance to discuss the changes you have made and why. It is also an opportunity to discuss any other changes that you would have liked to have made given time.