

Agile Engineering Course Summary

Description

This class is aimed at helping software development professionals and teams be more effective when implementing Scrum and other Agile software development methodologies. In an effort to raise the effectiveness of Scrum, the Scrum Alliance has created the Certified Scrum Developer program. This class is designed to deliver the core Agile Development Practices Learning Objectives of that program and should prepare the participant to successfully pass the Scrum Alliance CSD Candidate Assessment.

Objectives

At the end of this course, students will be able to:

- Understand my role on a Scrum team so that the team is successful in meeting sprint and release goals
- Understand user stories so that I can deliver the right functionality
- Write effective unit tests so that I will know when the code is done
- Break down requirements so that the work of delivering business value can be planned effectively
- Write high quality code and be able to evaluate code quality so that the project is not slowed down in the future by poor quality code (aka technical debt)
- Work collaboratively and efficiently with the other members of my Scrum team so that the sprint goal is achieved
- Write small tests then write the code to pass the tests and clean up the code so that I can work quickly and efficiently
- Create software components that are maintainable and efficient so that the product will have a long life and adapt to new requirements easily
- Have a common language to use when discussing application design with other developers so that we can quickly and accurately describe the system design
- Clean up my new code safely so that the new code is flexible and easy to understand
- Use automatic tools to refactor so that I can concentrate on delivering the needed functionality
- Verify that my code works in the system and does not break the system as often as possible so that issues are discovered quickly and the project is almost always in a state that can be demonstrated
- Use a build system that automatically builds the system and runs all automated tests so that integrating often is as easy as possible

Topics

- Architecture and design
- Test driven development
- Continuous integration
- Collaboration (pair-programming, etc.)
- Refactoring

Audience

This class is intended for professional software developers who are on a Scrum team and want to understand how Scrum and agile engineering practices are applied and how they affect their role in the team. The participant should have an understanding of Scrum preferably from taking Braintrust's Agile Project Management or a similar class. This class meets the Scrum Alliance Learning Objectives for the Certified Scrum Developer program in these areas. Architecture and design, Test-driven development, Continuous integration, Collaboration (pair-programming, etc.) and Refactoring.

Prerequisites

Students should have a basic knowledge of the .Net Framework and experience developing in C# or VB.Net with Microsoft Visual Studio, and a fundamental understanding of practical Object Oriented Programming practices.

Duration

Three days

Due to the nature of this material, this document refers to numerous hardware and software products by their trade names. References to other companies and their products are for informational purposes only, and all trademarks are the properties of their respective companies. It is not the intent of ProTech Professional Technical Services, Inc. to use any of these names generically