

Name: Arjun Dass

CWID: 10416575

Course: Agile methods of Software Development.

Q1. In the reading assignment, this week Poppendieck and Cusumano point out that some of the principles of the lean philosophy have been practiced by software developers in the past, before agile methods like XP and Scrum were invented. Describe one of these "pre-agile" software development practices or methods that embraces one of the lean principles, and explain how it does that.

Ans. Lean software development has seven principles. One of the principle is "Eliminate Waste" practice. While talking about lean software development, "waste" is anything that doesn't either add knowledge about how to deliver that value more effectively or add customer value directly. Some of the biggest causes of waste in software development are partially done work, handovers, lost knowledge, unnecessary features and multitasking, unclear or constantly changing requirements, slow or ineffective communication, defects or quality switches. Some processes or conventions might seem wasteful, but actually provide real value elsewhere in the organization, or prevent other forms of waste from emerging later.

Q2. Describe a practice of XP that is consistent with one of the principles of the lean philosophy, and explain how it does that.

Ans. Small and fast releases is consistent with principles of the lean philosophy. In extreme programming, we develop and deliver the application in a series of small, frequently updated versions. We develop new blocks in each version and deliver small release. A similar kind of practice is followed in Lean principle which is known as Deliver fast, which again concludes the same logic and consistent with lean principle. Rapid delivery should not be isolated from software development and flow should happen within the overall product development cycle. In lean development environments, production releases occur frequently - weekly, daily, even continuously. It's much better to think of software as a flow system where software is designed, developed, and delivered in a steady flow of small changes.

Q3. Describe a practice of Scrum that is consistent with one of the principles of the lean philosophy, and explain how it does that.

Ans. Iterative development is one of the practice that is consistent in scrum and lean philosophy. The scrums are part of the sprint. Each sprint is assigned the use cases the team would deliver at the end of the sprint. Scrum is practiced by having daily scrum meeting where team decides the backlogs of the sprint and discusses it. The use cases to deliver at the end of the sprint are decided together by customer and the development team. The development is said to be done only after getting approval from the customer. This is the same as developing software in the modules where the product is divided into modules and the modules are delivered in the phases in Lean practices.

Q4. Describe a practice of XP or Scrum that violates one of the principles of the lean philosophy, and explain how it does that.

Ans. Lean philosophy is violated by the role the development team plays in Scrum and XP. The software development team is not held responsible for the overall success of the work in Scrum and XP. While in the Lean practices, the software development team is part of the larger team and the entire large team is responsible for the success or failure of the product. There are no roles in Lean practices in the team while agile team has roles of Customer, Product owner and developers. The software development is separate activity in Scrum and XP while it is placed as step in product value stream.