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HW2

(Ch. 3/4)

① Extreme Programming (XP)

ⓐ Pair Programming

A development scenario where the engineers have collective ownership of the system. The objective of this process allows for developers to work in pairs, checking each other's work and providing support for quality assurance. They will literally sit at the same workspace and write code, which allows for code review in real time.

ⓑ Refactoring

A development technique that involves the modification of software sytem architecture in order to optimize the functionality of of the design. This process should improve system functionality as well as the quality of the code base. The goal of refactor should create cost effective solutions for future product developments. Work done during development should make the code easier to read and reuse for each proposed change.

ⓒ Test Driven Development

An approach to software development where executable tests are written before the program code. The set of tests are run after every change to the program. Developing tests from the user requirements before any code is written is an integral part of test-driven development.

② Scrum Terms

ⓐ Scrum Master

A scrum Master is the scrum team member tasked with fostering an effective and productive working environment and guiding others to understand scrum values. This is achieved by the scrum master helping their teammates understand scrum theory and practice. They enable the teams ability to improve its practices within the scrum framework.

(b) Sprint

A repeatable fixed time-box during which a "Done" product of the highest possible value is created. Sprint lies at the core of the sprint methodology and can be thought of as an event such as a daily scrum, Scrum review, and sprint retrospective. These event last for about one month or less.

(c) Product Back Log

This is a list of "to do" items that the Scrum team must tackle. They may be feature definitions for software, software requirements, user stories, or descriptions of supplementary tasks that are needed, such as architecture definition or user documentation.

(3) Four functional requirements:

(1) A user can search for an item in the store by using the search engine.

(2) Upon selecting an item there is an option to bundle related items or possible comparable items from a different manufacturer.

(3) A user can provide and scroll through reviews that have been given as input on the item in question.

(1) The overall interface of the webpage is parred to the user's location, country, and is divided into general categories for shopping. The home page includes recommendations based on previous purchases and current promotions or sales.

(4) Non-functional of a home security system

① Safety: There should be ample network security present in case of a malicious black hat hacker. Camera's, thermostats, and other devices should be shielded by a firewall or other cyber security measures.

② Availability: There should be an option of accessing the home security application on multiple devices. Mobile and desktop should be a bare minimum. Monitoring of data while away from a property should also be an option.

③ Response time: this aspect of a home security system involves the software having a precise capability of promptly alarming first responders in case of emergency.

I apologize for some short responses. I have to take my 2 year old to the ER right now. Thank you.