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Dr. Johnson Due: Week 13 Homework 3

CMSI 543

Problems From Chapter Seven

- <u>Ch 7, #1</u>: Why is it better to find defects earlier rather than later in the product development cycle?
 - It is best to track down and resolve defects as early as possible, especially if the project is complex. Improper prioritization of defects can create an overflowed backlog. Identifying defects can also provide insight into coding problems.
- Ch 7, #3: How does test-driven development improve code quality?
 - Proper and extensive testing can provide confidence in the usability, robustness, and progress of the project software. This promotes the business value of the project and ensures that it can handle expected and unexpected cases.
- Ch 7, #5: What is the benefit of decoupling code?
 - Decoupling code makes decomposition easier and also makes adding features and customizing features much easier. Changes are essential to Agile, and decoupling makes changes cause less problems since change in one thing doesn't require a change in another.
- Ch 7, #6: What risk may you encounter when doing regression testing?
 - Regression testing is a very useful method for testing, but in an Agile framework, with short sprints and time schedules, creating a comprehensive test suite can take up lots of time and overhead. Also, regression testing may likely utilize black box testing, which does not consider the means and functionality, and instead just the results. Without having a solid understanding of the functionality, some tricky problems can occur and emerge under the radar.
- Ch 7, #9: What is the difference between acceptance and system testing?
 - Systems testing will test the capability of integration among the parts of the system. Acceptance testing will conduct tests to measure and determine if the requirements and specifications are met for certain parts or products. Acceptance criteria are based on what would make software usable for customers and clients. Systems tests focus on testing the integration and connections within the whole of the system to check for bugs, defects and behavior. These systems tests can test above and beyond the requirements and specifications of the customer.
- Ch 7, #11: How is customer testing different in Agile development environments?
 - Customer feedback is a major priority in the Agile development process.
 Customers and users in general are what guide the development of the software and the overall project. User stories are how the backlog is generated.

Problems From Chapter Eight

• <u>Ch 8, #1</u>: How is Kanban different from the other Agile methodologies, specifically Scrum?

Kanban differs from Scrum because Scrum is better for projects with a time-boxed workflow. But Kanban is different because it benefits from an unpredictable workflow and development tasks that require deployment in less time.

Ch 8, #2: What do the columns on a typical Kanban board represent?

The columns of the Kanban represent the different sequential stages of development from the backlog, to completed left to right and has two extra sections for items which are blocked or fast-tracked.

• Ch 8, #6: What are information radiators, and how do they help Agile teams?

Information radiators are anything posted in the team members' physical space that they will see on a regular basis. The goal is for the information to "radiate" in their mind since the encounter the information regularly.

• Ch 8, #7: What is the difference between a burn-up chart and a burn-down chart?

Burn down chart is a daily status check for the team relative to where they expected to be at a certain time. On the other hand a burn up chart is a way to depict progress towards a product's release goal.

• Ch 8, #13: What does the daily stand-up meeting provide to the team beyond simply giving status?

A daily stand up meeting is a quick status check to prepare the team for the day. It gives the team on update on what everyone did yesterday, what they are doing today, and anything that they are blocked on. A daily stand up meeting is crucial for team calibration and not just a status check.

• Ch 8, #15: Why is it important for a team to hold a retrospective session?

This is a team meeting at the end of an iteration where the team has a chance to adapt their teamwork. It is important for a team to hold a retrospective session to allow the team to discuss the workflow and how they can enhance the workflow.

- Ch 8, #16: What is the best indicator of success in Agile?
 - Doing the work right the first time, on time, all the time. This can be evaluated by a burndown chart.
- <u>Ch 8, #18</u>: If the daily stand-up meeting allows you to assess the effectiveness of the sprint and the Sprint demo allows you to assess the effectiveness of the product, what are you assessing in the Sprint retrospective?

- Ch 8, #19: How is stakeholder feedback collected in the Sprint review, and what is done with that feedback?
 - PO is responsible for collecting the feedback and determining what items will be addressed in future sprints. Positive feedback shows that the new feature is ready for deployment. On the other hand, negative feedback the team needs to evaluate whether or not they should make the feature publicly available.

Problems From Chapter Nine

- Ch 9, #6: What is an example of a product differentiator for frozen pizza?
 - The outside design of the box and picture of the pizza. How fast and easy it seems comparatively.
- Ch 9, #8: Should developers participate in focus groups? Why or why not?
 - Yes, because then developers can hear customer feedback firsthand and make the customer and end goal more tangible to the developers.
- <u>Ch 9, #9</u>: When Agile development efforts are committed to the marketplace through marketing and sales, how can the development team maintain flexibility?
 - Maintain flexibility through the features and soft releases. Feature prioritization can be adjusted throughout the project depending on roadblocks. A soft launch is a great way to gather feedback from users.
- Ch 9, #12: How does a working agreement influence teamwork?
 - A working agreement is established when things are relatively calm and stress levels are low, and help the team to establish the values and norms that will govern their interactions. So when things go wrong and behavior starts to get off track, the team can refer to the working agreement to reestablish proper conduct.
- Ch 9, #14: What are some examples of silos in the marketing organization?
 - The marketing teams may have difficulty interacting with communication channels with developers and customers. For example, market research, public relations and product marketing
- <u>Ch 9, #17</u>: Are there any departments or institutions that would not benefit from Agile?
 Please explain your answer.
 - Yes, the World Bank doesn't need to discuss or have flexibility in its rules.
- <u>Ch 9, #19</u>: Since the Agile principles are easy to understand, does that mean they are easy to implement? Please explain your answer.
 - No, because each organization is different and hads different organizational cultures so the implementation of the Agile principles varies according to each organization and their products.