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CMSI 543
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Due: Week 4
Homework 1

Problems From Chapter Two

- Ch 2, #1: In what ways does self-organization change the day-to-day life of a developer?
    - Developers are coming together as a team instead of acting alone on a project. There is little manager oversight which allows developers a greater sense of independence. Due to Agile, developers now have more of a say of what they want to work on instead of having work assigned to them by their manager.

- Ch 2, #3: Why would frequent delivery of working software make a developer uncomfortable?
    - This shift to frequent delivery can make a developer who is a perfectionist uncomfortable. This individual might want everything to be precise before anyone sees it. Frequent delivery doesn't allow for everything to be just right before showcasing to stakeholders. But from a user standpoint, frequent delivery is very important to see if their requests are met and for developers to remain focused.

- Ch 2, #6: Instead of offering solutions to the team, what should an Agile manager do?
    - Instead of offering solutions to the team, the Agile manager should be clearing roadblocks for the team to be successful. Their job now is to focus on higher level activities such as technology architecture which was neglected prior to Agile.

- Ch 2, #9: How can an Agile manager demonstrate trust in a team?
  - Agile managers can demonstrate trust in their team by allowing them the space to grow and develop even though they might fail. The author uses an example of a parent hindering their child's development by still treating them as a young child even though they are grown. The same concept applies in a workplace, and Agile managers need to let go of some of their control to allow their team to learn and grow. Also, an Agile manager needs to allow their team to own their issues and solve them on their own.

- Ch 2, #13: Why might an executive want to change the priorities for an Agile team immediately?
  - An executive might want to change the priorities immediately if the customer is unhappy because of a problem in the product. It is crucial to keep customers happy especially to continue a professional relationship, bring in new customers and have longevity for the company.

- Ch 2, #15: What are examples of metrics that drive the wrong behavior, and why? [give at least 3]
  - Three examples of metrics that drive the wrong behavior are actual time taken to complete a task vs. estimated time, velocity of Team A vs. Team B, and the number of stories with acceptance criteria vs. those without.

- Ch 2, #19: Why would someone choose to leave the organization [resign] rather than move to an Agile environment?
  - This could happen if an executive makes promises to a customer that are unrealistic which could cause someone to become frustrated and leave the organization.

- Ch 2, #20: What should be done when an aspect of the Agile transformation is not working or delivering the desired results?

    - Ultimately the solution to resolving most issues that come up in Agile Development is to simply “Stay the Course”. It is in no way beneficial to revert to an old pattern or way of working on a project. Everyone including the executives must be on board with the transformation.

Problems From Chapter 3

- Ch 3, #1: What are the key themes for Extreme Programming?
    - The key themes of Extreme Programming are frequent releases in short development cycles, pair programming, regular builds and integration tests, quality and avoiding code breakage, simplicity of code, and rapid and regular feedback.
- Ch 3, #3: What five activities need to be performed in an FDD project?
    - In a Feature Driven Development the five main activities that need to be performed are: creating the model, developing the feature list, plan based on the features, design based on the features and build based on the features.
- Ch 3, #4: What four requirement categories are used for DSDM?
    - The Dynamic Systems Development Method operates off of the four requirements of feasibility/business studies, function model iterations, design and build iterations and implementation.
- Ch 3, #5: What are the seven principles of Lean software development?
    - Lean Software Development follows the seven principles of eliminating waste, amplifying learning, deciding as late as possible, delivering as fast as possible, empowering the team, building integrity and seeing the whole.
- Ch 3, #7: What are the four key principles of Kanban?
    - The four key principles of Kanban are fostering leadership at all levels of the organization, starting with what you know, focus on incremental and evolutionary change, and respect current methodologies and roles.
- Ch 3, #8: Why was crystal used to name the Crystal Family?
    - No two crystals are exactly the same, this is due to their unique shape, size, color and hardness. Similarly, no two projects are entirely the same and the crystal represents the multitude of different aspects that make up an Agile Project.