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**CMSI 543 / SYEG 557 Homework #1**

Chapter 2

**1. In what ways does self-organization change the day-to-day life of a developer?**

Self-organization changes with Agile by removing the management oversight through a working agreement with the team, which operates as a single entity, where there are no individual achievements, to drive towards a common goal. In a self-organizing team, each member might be more proficient in an area that the others are not as familiar with, team members are given the opportunity to distribute work and voice their suggestions.

**3. Why would frequent delivery of working software make a developer uncomfortable?**

Frequent delivery of a “living document”, or in this case working software, would make a developer uncomfortable because rather than them delivering a complete product, which some would describe as being a perfectionist with their work, they need to provide the customer with work that would receive critical feedback which would point out errors which the developer had not managed to address at that time.

**6. Instead of offering solutions to the team, what should an Agile manager do?**

Workers typically feel a level of accomplishment when they are facing a difficult problem and can figure out a solution. A manager may take the level of accomplishment from the team, by removing the impact which they have in the organization, when offering solutions. Managers need to inspire their team by listening to the issues that they are facing. They should not offer solutions but instead ask the right questions (e.g., what do you think we should do next?) and ensuring that the team has all the support and tools that their team requires to complete the task at hand.

**9. How can an Agile manager demonstrate trust in a team?**

An Agile Manager demonstrates trust by allowing team members to own issues and resolve them on their own, similar to allowing your children to explore their own ideas even if you are skeptical.

**13. Why might an executive want to change the priorities for an Agile team immediately?**

An Executive might change priorities due to several reasons. First being, any significant changes in the market such as the need to respond to a new customer requirement. Secondly, if any new business opportunities arise or if there are any unforeseen events. Another reason is to align with the company strategy and lastly could be due to time constraints. If there are urgent time constraints an executive might want to shift focus to ensure the deadlines are met.

**15. What are examples of metrics that drive the wrong behavior, and why? [give at least 3]**

1. Actual time taken to complete task vs. Estimated time
2. Velocity of Team A vs. Team B
3. Number of stories with acceptance criteria vs. Those without

**19. Why would someone choose to leave the organization [resign] rather than move to an Agile environment?**

People that are resistant to change in work requirements will likely not enjoy increased accountability and transparency; and would likely prefer to resign/move to a role in a waterfall development process. Since Agile requires its members to rotate roles and be adapt to changing requirements these two characteristics would prove problematic to a worker resistant to change.

**20. What should be done when an aspect of the Agile transformation is not working or delivering the desired results?**

It would depend entirely on what aspect of the Agile transformation is lacking. It would be best to investigate the root cause of the issue.

Scenario 1) If unhealthy team dynamics is the issue – a strong scrum master, coach, or even manager is needed to break these bad habits. If needed, an experienced Agile coach or practitioners can be reached out for support.

Scenario 2) Manager asks questions instead of offering solutions – If a manager can shift into a questioning mode, he or she can help the team self-organize and establish trust.

Scenario 3) Executives tend to want to improve how the team is performing by stirring the pot (e.g., removing a member of the team to work on an incident). It is best for the team to stay committed to the sprint goal.

**Chapter 3**

**1. What are the key themes for Extreme Programming?**

a) Frequent releases, short development cycles.

b) Pair programming.

c) Regular builds and integration tests.

d) Quality and avoiding code breakage.

e) Simplicity of code, coding only what is needed.

f) Rapid and regular feedback.

**3. What five activities need to be performed in an FDD project?**

1) Creating the initial model.

2) Developing the feature list.

3) Ordering features and assigning them.

4) Create a design based on the assigned features.

5) Test current build.

**4. What four requirement categories are used for DSDM?**

1a) Feasibility Study – Functionality to be included, Functional prototype, and timeline

1b) Business Study – Business processes analyzed by project stakeholders using MoSCoW requirement prioritization method

2) Functional Model Iteration – Functional models tested by user group until agreement is met

3) Design and Build Iteration – All functional models brought together for prototype

4) Implementation – User acceptance of the product & implementation

**5. What are the seven principles of Lean software development?**

1) Eliminate Waste

2) Amplify Learning

3) Decide as late as possible

4) Deliver as fast as possible

5) Empower the Team

6) Build integrity in

7) See the whole

**7. What are the four key principles of Kanban?**

1. Foster Leadership at all levels of the organization
2. Start with what you know
3. Focus on Incremental and evolutionary change
4. Respect current methodologies

**8. Why was crystal used to name the Crystal Family?**

Because no two crystals are the same... based on their unique colors and hardness, the analogy is that no two projects are the same.