Assignment 1

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1) What distinguishes the creation of custom software from the production of generic software products? What does this actually mean for people who utilize generic software products?

The differences between the custom and generic software products would be, that custom software is usually developed for a certain organization or user taking care of that certain project needs, will take a lot more time to conclude and money, and have a more hands on development between both parties. The generic software is made for a bigger audience, taking care of common needs that aren’t specific to a certain user, will be lower cost because it is completed in a timely manner, the one thing that would make it lack luster is because it will lack customization. What this means is that generic software users may need to compromise on functionalities to get things to work for their needs and for generic will most likely have a way bigger community for support and help.

2) Explain the significance of differentiating between creating system requirements and user requirements during the requirements engineering process.

The significance of differentiating between users and system requirements is very important in the requirements engineering process, because it allows communication, alignment and effective project management. User requirements capture, high level needs and expectation at the final user level so that it is easy for various stakeholders to verify that their needs have been understood. System requirements are more detailed, technical specifications that guide developers in the implementation of the user needs. Separating this will allow the development team to trace the user expectations back to the final system, improving the flexibility in the design and innovation with reduced risk. This difference provides the team with more efficient project management, allowing them to prioritize tasks with the user goals while aligning with the technical impletations.

3) What are the benefits and drawbacks of the process maturity approach represented in the SEI's Capability Maturity Framework? (Write at least 3 items for pros & cons.)

  Pros:

Benchmarking, able to compare progress and process with the industry and identify sections that can be improved.

Predictability, able to get better timelines and costs of projects.

Better customer satisfaction, the organization can deliver consistent quality which will enhance customer trust and satisfaction.

Cons:

Very resource intensive, while the project is developing, it will require more time, effort and resources.

Resource allocation, with the previous con, as the projects matures the allocation of resources will be way higher and can even delve the organization from core resources, considering they may be a small to mid-size organization.

Documentation overload, the emphasis on documentation can also lead too excessive paperwork, that can burden the team and slow down the processes required to develop the system.

4) User needs are expressed as stories in extreme programming, and each story is written on a card. What are the benefits and drawbacks of this method of describing requirements? (Write at least 3 items for pros & cons.)

Pros:

User centered, which are written from the user’s perspective, allowing the developer to process according to the user needs.

Flexibility, stories are easy to modify or reorder, assisting the developer to adapt quickly to changing requirements.

Communication, writing the stories on cards allows clear communication between developers and users, assisting understanding.

Cons:

Limited details, stories can be lacking in detailed specifications, which can cause the project to become ambiguous during the implementation.

Scalability issues, managing a lot of stories can become difficult, especially in complex projects.

Dependency management can be difficult to track between stories which can lead to integration issues later in the development process.

5) Why is it important, when extending agile methodologies to larger projects generated by distributed development teams, to introduce certain procedures and documentation from plan-based approaches?

This way it can keep consistency across the teams, because in larger projects will have many teams, while keeping coding standards and documentation assists the teams to be on the same track, even if they happen to be working in different locations or remotely. Also risk management is a big factor, helps to identify the potential risks early in the development process, which can be crucial to large projects where any issue can be very significant. Documentation for reference, as the project develops it becomes essential for this to help with new team members and ensure all teams have access to necessary information.