Elijah Pineda, Nate Devine, Alex Klavens

Software Engineering

9/28/18

Group Assignment 1

1. A software engineering code of ethics is a set of principles that all software engineers/developers adhere to. This set of principles ensures that software engineers/developers design, construct, test and maintain software in a respectable, beneficial manner.

2. All agile methods share a set of core principles. These principles, in no particular order, are: customer involvement, incremental delivery, people not process, embrace change and maintain simplicity.

3. Agile approaches are likely to be successful in developing small to medium-sized commercial software products. In addition, agile approaches are also successful for an organization's custom system development. However, the customer must be involved in the development process and there must be few external rules that can affect the software.

4. The five principles are customer involvement, incremental delivery, people not process, embrace change and maintain simplicity.

5.

1. Is your software development work creating a new piece of software or maintaining an existing piece of software? The agile method of software development is best suited for the former of these cases.

2. Is your team small and readily able to communicate amongst themselves? If so then the agile method of software development may be well suited for your software development project of choice.
3. Is your employer willing to establish a contract which pays for time rather than deliverable products? If not then the agile method of software development may not be the best choice for your project, as normative specification-based contracts are fundamentally at odds with the agility of the agile method of software development.
4. Consider the system you intend to design for your present software endeavor - does it require significant analysis before implementation? If the answer to the previous question is yes, then an agile method of software development may not be well suited for your project because of these types of project benefit from highly detailed designs, which are notably absent from the agile method of software development

6. Of the important agile techniques that were introduced in extreme programming, three are extremely suitable for consideration: (1) iterative development practices, (2) prioritizing simplicity, and (3) embracing change.

7. What kind of personal identifier should be used? How is the person's identity actually being authenticated - what database is their information being checked against? What happens if the customer wants a refund? What happens if the start button is pressed again?

8. The ticket-issuing system should be capable of issuing up to 10 tickets in a single transaction to expedite larger purchases. The system should be available 24/7 with no downtime. The credit card data must be encrypted end-to-end. Customer support should be available 24/7 as well,

though remote service is acceptable. The product must be very easy to use with an intuitive, simple design, and should fail with the utmost infrequency.

9. It is clear that the principles underlying agile methods lead to the accelerated development and deployment of software. The de-emphasis of documentation in agile development allows for the developers to spend their time coding and making tangible progress on their system. Indeed, this is the underlying philosophy of agile development: streamline every part of the development process to give your coders as much time as possible to write code, which is what they're good at, Additionally, the emphasis on iterative development means that work is able to start immediately; there's no need to wait for approval on detailed specification requirements.

10.

A.

a. Business Requirements
    i. Users must be able to register account[s]
    ii. A website must be created and hosted
    iii. Blogs should be public and open for comments
    iv. The site should have ads
b. Quality Attributes
    i. Availability - the service should be available at all times since blogging never stops.
    ii. Backup - the service should be regularly backed up to make sure that nobody loses their content
    iii. Secure - only the intended user should be able to access their account

B.

c. Business Requirements

    i. The system must record and monitor a patient's pulse and vitals.

    ii. The recording should be viewable in real time

d. Quality Attributes

    i. Availability - the service should be available at all times since it could be a matter of life or death

    ii. Cost - should be low since a large number of the systems are needed

    iii. Scalable - need to deploy a system to every ward in the hospital

    iv. Secure - this is private data that must be kept confidential

C.

e. Business Requirements

    i. Must be able to send out surveys to random members from [the] population

    ii. All personal data must be withheld from the company that paid for the survey

f. Quality Attributes

    i. Scalability - a large volume of surveys is being completed with expansion on the horizon

    ii. Privacy/security - Must ensure the confidentiality of personal information