Name: Jae Hong Lee BUID: U27565203

CS411 Quiz 1 - SDLCs

Please answer the following questions and turn your completed PDF in on Gradescope.

1. What is the primary goal of using an iterative process / methodology to design and build software? In other words, why do we use the same process over and over?

   The essence of iterative processes is that the specification is developed in conjunction with the software. Rather than finishing up the project develop and check before deliver, the process is broken down to repeated process to develop required functionality. It also reduce the lower risk of overall project failure with testing.

2. What's the main difference between incremental delivery and incremental development?

   Incremental development develop the system in increments and evaluate each increment before proceeding to the development of the next increment. It is also used in agile method, and the evaluation is done by user and customer proxy.

   In contrast to incremental development, incremental delivery deploy an increment for use by end-user. It focus on more realistic evaluation such as Practical use of software. However, incremental delivery is difficult to implement for replacement systems as increments have less functionality than the system being replaced.

3. Why is the waterfall methodology called a fail-late process?

   Because one of the problems with the waterfall process is Late Integration and Test. The waterfall pushes this high-risk and difficult issues toward the end of the project. That is the reason why Waterfall is called Fail-late lifecycle.

4. We've looked at a couple of SDLCs at this point, and one takeaway is that they are all similar, even though they use different terms for their steps of phases. What is the generic version of an SDLC? (It's the one with a bunch of 'D's)

   The generic version of an SDLC is four Ds. Define, Design, Develop, and Deliver. Other SDLC methods are called different, but they all follow 4D Process.
   Define: Understand the problem. Design: Plan a solution. Develop: Carry out the plan. Deliver: Examine the result for accuracy.

5. What are the four steps of the Rational Unified Process?

   The four steps of the Rational Unified process are Inception, Elaboration, Construction. and Transition.

   - Inception: Establish the business case for the system. Identify actors and initial use cases. Initial planning, estimation and schedule.
   - Elaboration: Understand problem domain. Requirements model(use case model). Overall system architecture.
   - Construction: System design, object design, programming and testing. Develop a working software system ready to deliver to users.
   - Transition: Deploy the system in its operation system.