

Fundamentals of Software Engineering 2019.2 - Test 01 - (10/01/2019)

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WRITTEN TEST SCORE 4

(Chapters 1 - 11 from Software Engineering - A Practitioner's Approach (Eighth Edition))

2.5. Umbrella activities occur throughout the software process. Do you think they are applied evenly across the process, or are some concentrated in one or more framework activities?

Umbrella activities are applicable throughout the software process, but are primarily in project management, monitoring and control. So my answer is that they stay focused on some activities.

4.10. It is possible to prove that a software component and even an entire program is correct. So why doesn't everyone do this?

The correctness of an algorithm can be stated by saying that the algorithm is correct with respect to a given specification, so it is possible to prove whether an entire component or software is correct. So we use some gimmicks such as Unit Tests this test basically consists of validating the output based on the input, but this is not always done because it mainly takes time to create these tests.

5.3. Why does an iterative process make it easier to manage change? Is every agile process discussed in this chapter iterative? Is it possible to complete a project in just one iteration and still be agile? Explain your answers.

Upgrades are easy to implement because in an interactive process the basic activities (communication, planning, modeling, construction and evaluation) are being done more often, organically changes occur. Every agile process is iterative because to be agile it must be iterative and incremental. It is not possible to complete a project (really) just an iteration and be agile, because to be agile it must be iterative and in this example it was not.

6.6. Which of the four organizational paradigms for teams (Section 6.4) do you think would be most effective (a) for the IT department at a major insurance company; (b) for a software engineering group at a major defense contractor; (c) for a software group that builds computer games; (d) for a major software company? Explain why you made the choices you did.

a- synchronous paradigm, because the problems of the organization are naturally shared
b- open paradigm because they need to communicate a lot within the organization

- c- random paradigm, because it can be done with team or individual and requires a lot of innovation
- d- closed paradigm, because it has a more traditional hierarchy structure

7.9. Describe what granularity means in the context of a project schedule.

During the software process the process granularity happens a lot, it happens since the whole process is divided into activities and these activities can be divided into even more activities. thus making the whole process split up to arrive at the whole.

7.13. What is a successful test?

There are several types of tests, such as: functional, structural, regression, load, safety, among others. A successful test is when software is submitted to these tests and software is returned when it was expected for a use case, so the test is said to be successful.

8.3. Discuss some of the problems that occur when requirements must be elicited from three or four different customers.

Customer requirements are difficult to understand. The customer requirements will change over time, so that a customer with one set of requirements at one time can add another set of requirements later. The customer will have a large set of expectations that this may not be met. Customers will change their requirements quickly.

8.17. What five tasks make up a comprehensive requirements monitoring program?

10.7. What is an analysis package and how might it be used?

11.2. How does a sequence diagram differ from a state diagram? How are they similar?

Referências

Software Engineering - A Practitioner's Approach eighth edition - Roger Pressman

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