

Homework 02, CPSC-4175

Chapter 11, Object-Oriented and Classical Software Engineering

August 12, 2017

1. What is the first step in creating a piece of software?
2. What is the difference in discovering what the client needs and discovering what the software should do?
3. In what sense is a software engineer a generalist rather than a specialist?
4. List some techniques the book identifies as useful for determining requirements, and for each, give one reason why that technique might not be effective.
5. In what sense are requirements dynamic rather than static?
6. In your own words, state the difference between functional and nonfunctional requirements. Do you think that there is any such thing as a “nonfunctional” requirement?
7. What is *top-down analysis*? You may also see this referred to as *structured analysis*. How is this different than the case study in chapter 11 in the book?
8. *Prototyping* is a very controversial issue. Can you think of some reasons why many software engineers think that prototyping is harmful?
9. Teams One and Two both have the responsibility for developing a software requirements specification for a project. Team One has infrequent changes to its requirements specification, while Team Two has very frequent changes to its requirements specification. Which team is doing the better job? Justify your answer.
10. More software defects are traceable to bad requirements analysis than to any other source. Why do you think this is true?