

Fundamentals of Software Engineering

This Tutorial is based on questions from the book Software Engineering 10 by Ian Sommerville and is based on the material covered in chapter 3.

Week 3 Tutorial

Agile Development

1. What are the shared characteristics of different approaches to rapid software development?
2. For what types of system are agile approaches to development particularly likely to be successful?
3. List the 5 principles of agile methods.
4. List 4 questions that should be asked when deciding whether or not to adopt an agile method of software development.
5. What are three important characteristics of extreme programming?
6. What is test-first development?
7. What are the possible problems of test-first development?
8. Briefly describe the advantages of pair programming.
9. What is a Scrum sprint?
10. What are the barriers to introducing agile methods into large companies?
11. Extreme programming expresses user requirements as stories, with each story written on a card. Discuss the advantages and disadvantages of this approach to requirements description.
12. Suggest four reasons why the productivity rate of programmers working as a pair might be more than half that of two programmers working individually