

Software Development II HW

3.4 Explain why test first development helps the programmer to develop a better understanding of the system requirements. What are the potential difficulties with test-first development?

Test-first development helps programmers to stick with the system requirements with better accuracy and immediate feedback. Test-first also includes the necessary pseudo code creation which then helps the programmer to finalize the code. Since the code is tested as it is developed, the code tends to stick to the original system design. This technique is especially helpful for projects that are large in nature. The potential difficulties however, are if someone were to add a new feature to their product, it would take a longer time to implement it.

3.5 Suggest four reasons why the productivity rate of programmers working as a pair might be more than half than that of two programmers working individually

I believe that the reasons why productivity rates are higher in pair-programmers rather than non-traditional teams due to the code being looked at by more than one person, the program stays on one computer to be developed on, all team members work together dynamically, and knowledge is more easily spread amongst the team. If there are two people working on the same code at the same time, there is less chance for error. Also, there is a higher chance of the issue being completely resolved rather than trying to create/develop the entire project alone.

3.7 To reduce costs and the environmental impact of commuting, your company besides to close a number of offices to provide support for staff at home. However the senior management who introduce the policy are aware that software is developed using scrum. Explain how you could use technology to support Scrum in a distributed environment to make this possible. What problems are you likely to encounter using this approach?

In order to maintain using the Scrum technique, I would have all of my employees download a file sharing system, join a team management web application and also some sort of conference call system in order to hold daily meetings. All collaborative work would require at least two of the three mediums in order to be done successfully. I believe problems we may face are internet connection issues, proper meeting timing and perhaps an unreliable system as a whole.