Learning Software Engineering Basic Concepts using a Five-Phase Game

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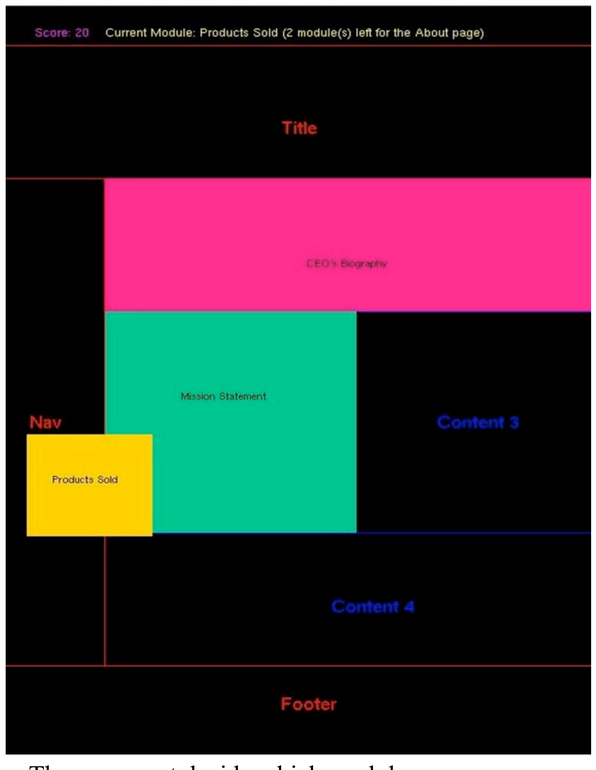
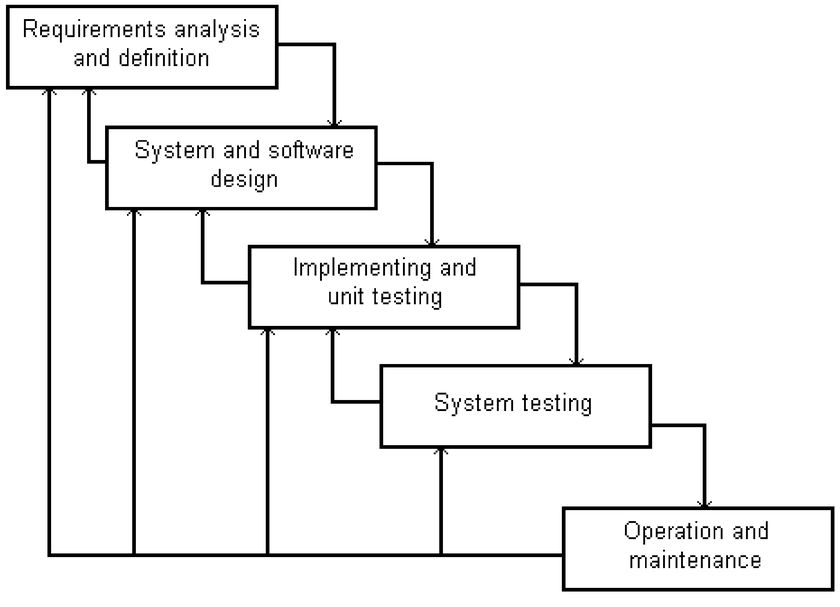
The user must navigate through the customer's corporation to clarify requirements.

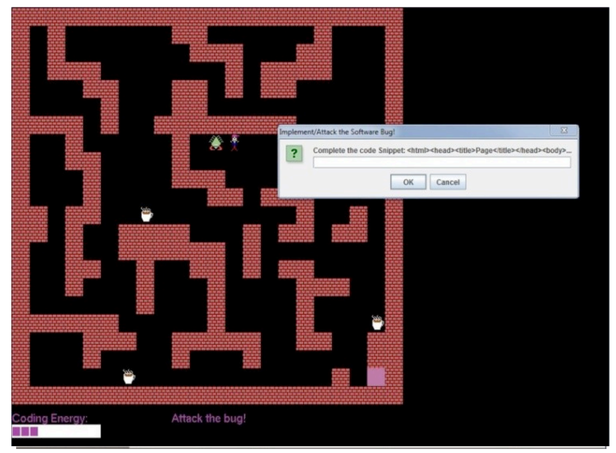


The user must decide which modules are necessary and where to place them on each page of the website.

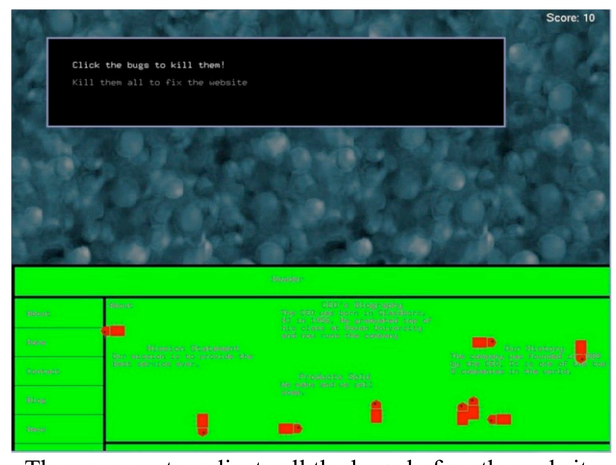
Abstract:

Unfortunately, the stereotype of a software engineer is one who spends his whole day in a cubicle programming. Other aspects of software engineering, such as holding meetings with the client to gather requirements, documenting requirements, design, and testing are not talked about. Many middle and high school students believe this stereotype and become disinterested in a prospective career in software engineering due to this unfortunate stereotype. As a result, we developed a game to teach software engineering to middle and high school students. This game allows a student to explore the various phases of the software life cycle, which are requirements, design, implementation, testing, and maintenance. The waterfall software life cycle was practiced while developing this game, as the every student in the Information Visualization course participated equally in the development of the game. In addition, visualization techniques were used to develop this game.

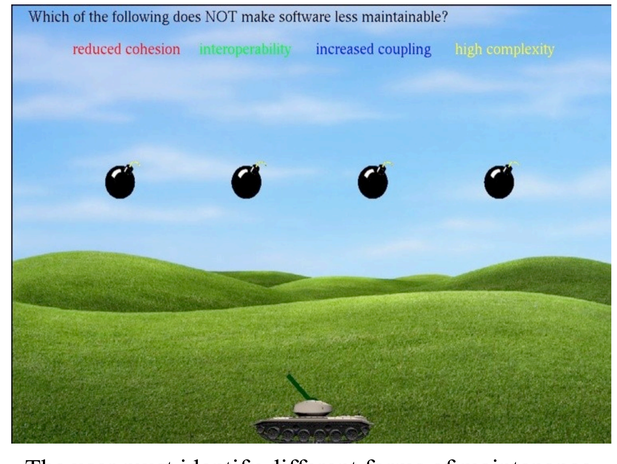




The user must navigate through the maze and complete all of the coding challenges/



The user must eradicate all the bugs before the website becomes inoperable.



The user must identify different forms of maintenance.