Assignment 2

1. Compare different development patterns

- a. Prototyping is the practice of creating small viewable implementations of user features, used in the requirements elicitation stage of software development and is used to clarify vague user requirements. In incremental development, the software product is delivered to the client in small increments. This allows the developers to build their understanding of the less well-known requirements by starting with the requirements which are better understood and building upon them. This process is harder to manage than a prototyping process.
- b. The waterfall method reflects the practices used in other engineering fields. With a rigorous documentation driven process, and a single delivery point. In incremental development, there is still a large portion of the project timeline dedicated to planning and documentation. The key difference between these two processes is the act of delivering small pieces of software with each increment of the development process in the incremental approaches.
- c. Agile development focusses less on extensive documentation and more on the development of the software. It helps to bridge the gap between the client and the developers by increasing customer involvement in the development process, and by focusing on maintaining simplicity. Agile also implements an incremental delivery system, like that practiced in the incremental development approaches. However, this incremental process is delimited by time chunks rather than feature fulfilment. Agile processes also greatly decrease the large planning and design.

2. When would you recommend against agile approaches?

a. The agile development approaches are not very suitable in some cases. Agile uses an incremental delivery system for development, meaning that if that the project cannot be divided into chunks that are able to be developed during small periods of time, or that can be delivered in chunks, due to the nature of the system being developed, in the case of a secure system for example, then agile practices are not very useful, and another method should be chosen. Agile is also better suited for meeting the changing needs of the customer, so if the project doe not need to adapt to the changing needs of a customer, or if there is no regular customer for whom needs change, then another method like a waterfall approach may be better suited because the complicated interactions with the human customer may be lessened or removed entirely.



