

Assignment -1

Question 1 - Compare and contrast the Waterfall model, Incremental model, and Spiral model in software development. Discuss scenarios where each model is most appropriately applied.

Question 2 - Discuss the essential characteristics of high-quality software. How do these characteristics influence the design and development of software applications?

Question 3 - Choose a software application you are familiar with and perform a detailed analysis of its architecture. Identify its components, the interactions between them, and discuss how it adheres to the principles of software engineering.

Question 4 - Describe the layered technology stack commonly used in web application development. Explain how each layer contributes to the overall functionality and performance of the application.

Question 5 - Explain the generic phases of software engineering as described by the IEEE standard for software lifecycle processes. How do these phases ensure the development of robust and maintainable software?

Question 6 - Discuss the principles of Agile development. How does Agile address the limitations of traditional software development models?

Question 7 - Explain the key practices of Extreme Programming (XP). How do these practices contribute to the success of software projects in an Agile environment?