INTRODUCTION TO SOFTWARE ENGINEERING ASSIGNMENT 2

1. Define Software Engineering
2. What is software engineering, and how does it differ from traditional programming?
3. Software Development Life Cycle (SDLC):

* Explain the various phases of the Software Development Life Cycle
* Provide a brief description of each phase. Agile vs. Waterfall Models
* Compare and contrast the Agile and Waterfall models of software development.
* What are the key differences, and in what scenarios might each be preferred

1. Requirements Engineering:

* What is requirements engineering
* Describe the process and its importance in the software development lifecycle

1. Software Design Principles:

* Explain the concept of modularity in software design
* How does it improve maintainability and scalability of software systems

1. Testing in Software Engineering:

* Describe the different levels of software testing (unit testing, integration testing, system testing, acceptance testing).
* Why is testing crucial in software development

1. Version Control Systems:

* What are version control systems, and why are they important in software development
* Give examples of popular version control systems and their features

1. Software Project Management:

* Discuss the role of a software project manager
* What are some key responsibilities and challenges faced in managing software projects

1. Software Maintenance:

* Define software maintenance and explain the different types of maintenance activities
* Why is maintenance an essential part of the software lifecycle

1. Ethical Considerations in Software Engineering:

* What are some ethical issues that software engineers might face
* How can software engineers ensure they adhere to ethical standards in their work