Quiz

A Web-Tech company is working on an **e-commerce website**. During development, the following problems arise:

1. **The code is difficult to modify and understand.**
2. **Frequent bugs appear after every new feature update.**
3. **The testing phase is always rushed due to time constraints.**
4. **Performance issues arise when handling a high number of users.**
5. **New developers struggle to understand the existing code-base.**

Question:

Provide the following in your answer:

I. **Software Engineering Principle used in each case** (mention only the name).

II. **Solution or a Valid reason** in one line for choosing the following principle.

Solution

1. Code is difficult to modify and understand.

Principle:

Modularity & Separation of Concerns

2. Frequent bugs appear after every new feature update.

Principle:

Continuous Testing & Defensive Programming

3. The testing phase is always rushed due to time constraints.

Principle:

Test-Driven Development

4. Performance issues arise when handling a high number of users.

Principle:

Scalability & Efficient Resource Management

5. New developers struggle to understand the existing code.

Principle:

Clean Code & Documentation