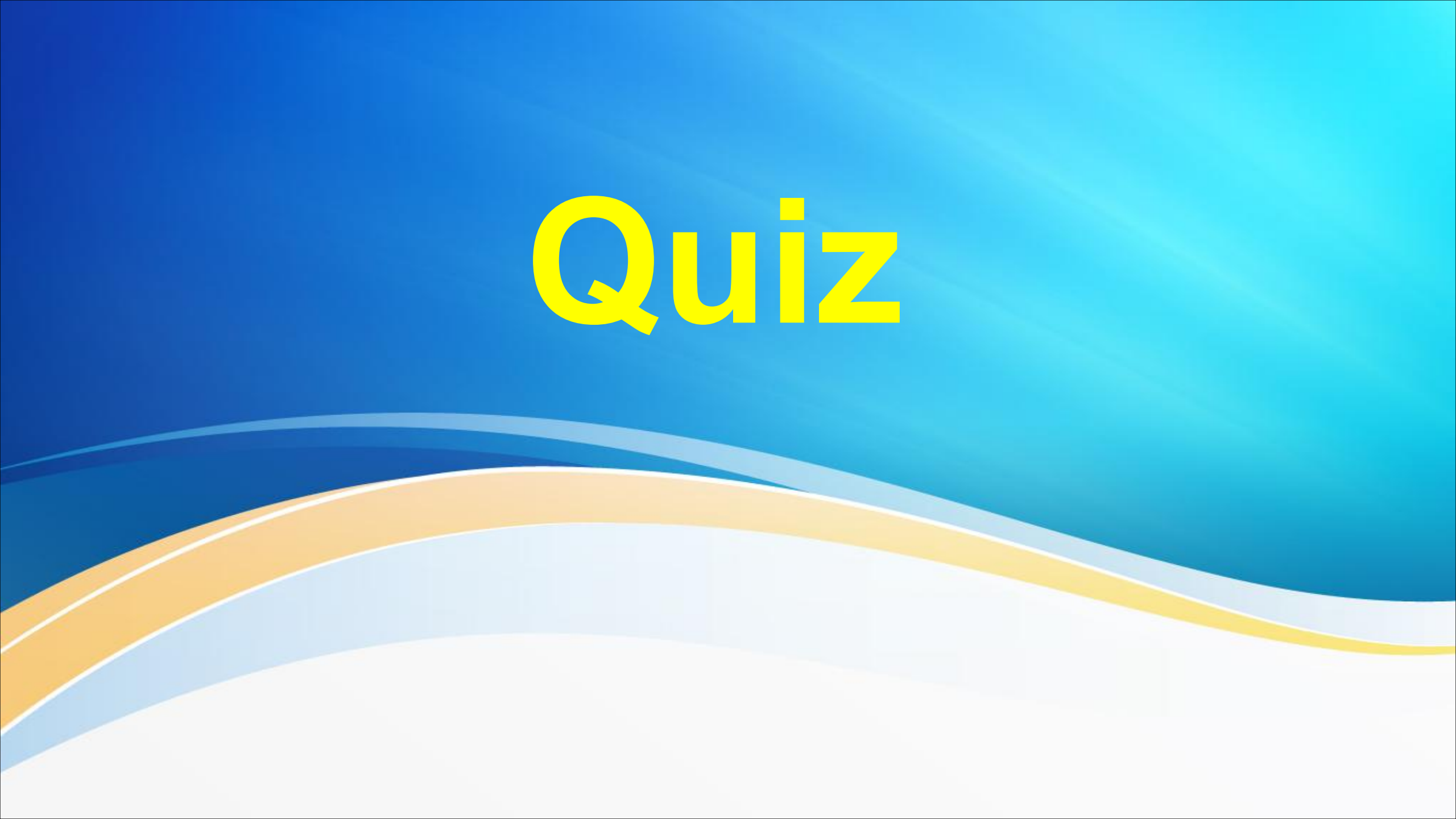


# Quiz

The background features a gradient from dark blue at the top to light blue at the bottom. Overlaid on this are several wavy, horizontal bands in shades of orange, light blue, and white, creating a layered, wave-like effect.

**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

The background features a blue gradient that transitions from a deep blue on the left to a lighter, cyan blue on the right. In the lower half of the image, there are several overlapping, wavy lines in shades of light blue, yellow, and white, creating a sense of movement and depth.



**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**