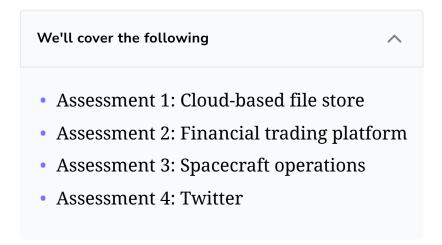




Let AI Evaluate Your Understanding of Non-Functional Requirements

Test your knowledge of non-functional requirements and their significance in system design.



We have now covered the non-functional attributes of a system. Take the following AI-powered assessments to solidify and test your knowledge of non-functional attributes in real-world scenarios. Don't worry, our AI mentor will guide you along the way.

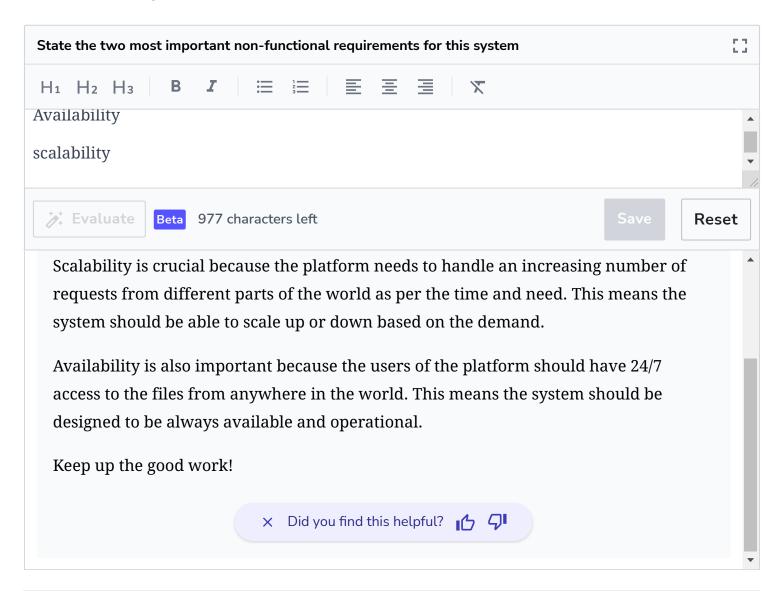
Assessment 1: Cloud-based file store

You are leading a team developing a cloud-based file-sharing platform for a multinational corporation. You are tasked to ensure that the platform has the following attributes:

- The users of the platform have worldwide 24/7 accessibility to files
- Depending on the time and need, the platform is able to handle an increasing number of requests arriving from different parts of the world

Keeping these requirements in view, state **two of the most important and relevan Tr non-functional requirements** from the list provided below such that their inclusion in the design will enable us to achieve the scenario mentioned above.

- Maintainability
- Scalability
- Fault tolerance
- Reliability
- Availability

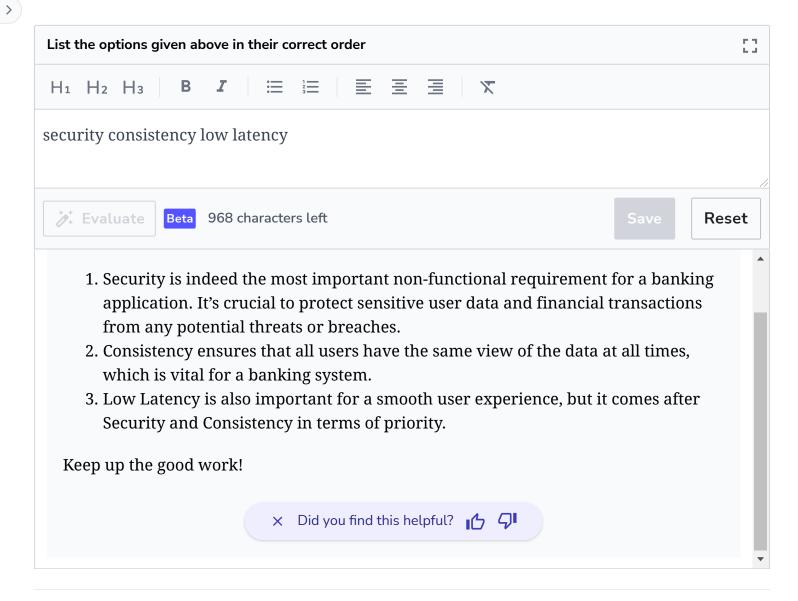


Assessment 2: Financial trading platform

Imagine a banking application for financial transactions and buying online products. This platform allows users to obtain their account status, transfer money, pay utility bills, and generate bank statements.

List the following **non-functional requirements in the correct order**, starting from the most important non-functional requirement to the least important non-functional requirement:

- Low latency
- Consistency
- Security



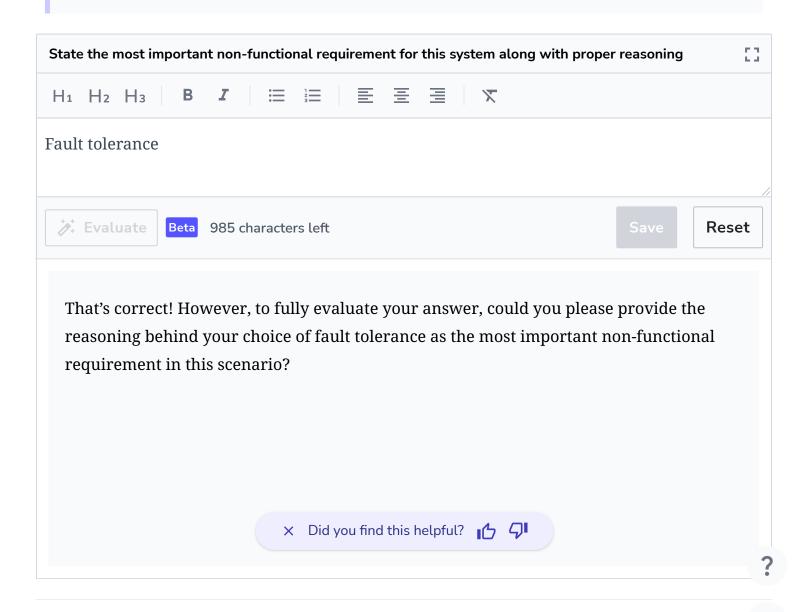
Assessment 3: Spacecraft operations

A space agency relies on critical systems to operate spacecraft, conduct space missions, and gather valuable data for scientific research. Imagine a scenario where a spacecraft is on a mission to explore a distant planet, and it encounters a hardware malfunction or a communication disruption with the control center on Earth.

State **one of the most important and relevant non-functional requirements** from the list provided below such that its inclusion in the design would enable us to recover from the scenario mentioned above. Please also provide proper **reasoning** behind your decision:

- Reliability
- Maintainability
- Consistency
- Fault tolerance
- Availability
- Scalability

Note: You must provide reasoning along with the name of the non-functional requirement in your answer.



Assessment 4: Twitter

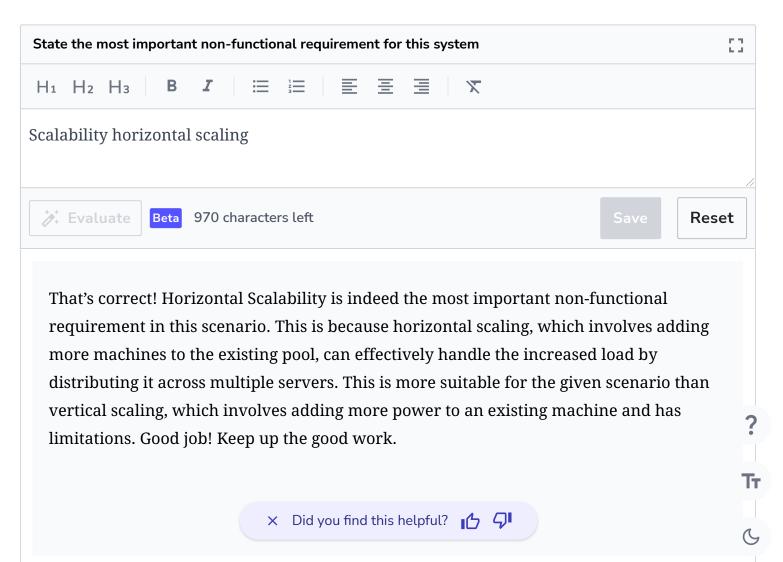




Consider a scenario for Twitter's recently introduced feature allowing users to stream live video directly within their tweets. As a result, the number of users streaming live video has surged exponentially. Users are consequently experiencing delays, and the system struggles to handle the increased load.

State **one of the most important and relevant non-functional requirements** from the list provided below such that its inclusion in the design would enable us to handle the scenario mentioned above.

- Reliability
- Maintainability
- Consistency
- Fault tolerance
- Availability
- Scalability





Fault Tolerance



Next \rightarrow

Put Back-of-the-envelope Numbers in Pers...