

Architecture Goals & Constraints

Requirement	What	Why	How
User Identification	System should remember the user's IP address	To provide a personalized experience	<ul style="list-style-type: none">· Store and track user IP addresses
Confidentiality	System should ensure sensitive data (like problem solutions) is protected	To prevent data misuse	<ul style="list-style-type: none">· Encrypt data· implement access controls on stored data
Scalability	System should handle increasing numbers of users and generated problems	To ensure the system remains responsive and reliable as usage grows	<ul style="list-style-type: none">· Implement auto-scaling on cloud infrastructure
Customizability	System should allow users to generate problems based on their selected topic and context	To provide personalized learning experiences	<ul style="list-style-type: none">· Use an API for dynamic problem generation
Feedback accuracy	System should provide accurate feedback on user submissions	To enhance learning effectiveness	<ul style="list-style-type: none">· Implement real-time feedback using APIs.