## Software Architect Design for Quiz Game

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#### **Change logs**

Date	Version	Change history	Author
Oct 5, 2024	0.1	Init	@nguyen canh toan

## I. GENERAL

### 1.1 Objective

Real-time quiz feature for an English learning application. Allow users to answer questions in real-time, compete with others, and see their scores updated live on a leaderboard.

## 1.2 Scopes

### 1. User Participation:

- $\circ~$  Users should be able to join a quiz session using a unique quiz ID.
- The system should support multiple users joining the same quiz session simultaneously.

#### 2. Real-Time Score Updates:

- $\circ\;$  As users submit answers, their scores should be updated in real-time.
- The scoring system must be accurate and consistent.

#### 3. Real-Time Leaderboard:

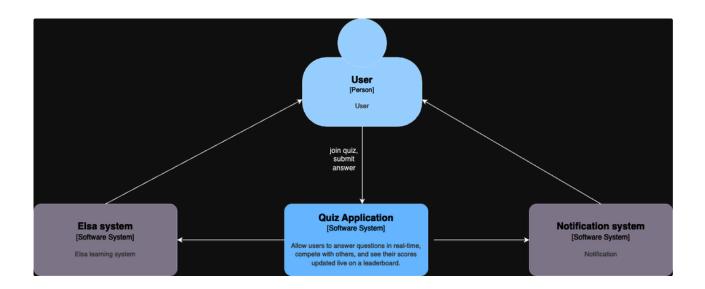
- $\circ\;$  A leaderboard should display the current standings of all participants.
- The leaderboard should update promptly as scores change.

## **II.KEY TECHNICAL DECISIONS**

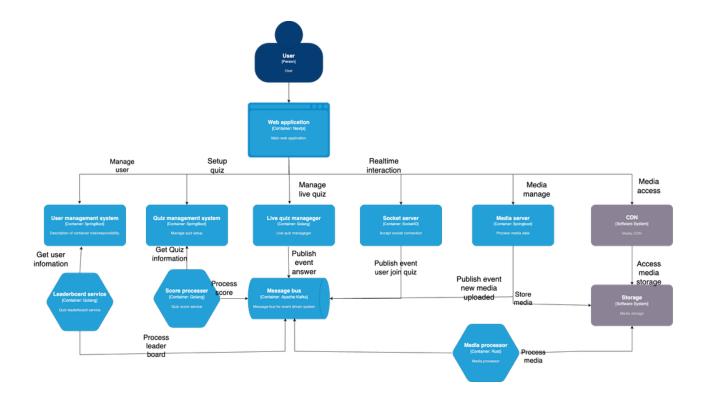
No	Group	Key Architect	Scope	Decisions & Reasons
1	Infra	Elastic container	Service deployment	Fully Managed Container Solution – Amazon Elastic Container Ser vice (Amazon ECS) - Amazon Web Services
2	Database	Mysql	Database	Relational database
3	Programing language	Java		
4	Programing language	Golang		
5	Programing language	Nodejs		
6	Mobile	Flutter		
7	Web	Typescript		

# III. SYSTEM ARCHITECT

## 3.1 Domain landscape



## 3.2 Product landscape



- 3.3 Physical model
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