

Challenge - Solution Architect

Welcome to the Solutions Architect JR. Challenge!

Aspiring to become a solutions architect requires a blend of technical expertise, problem-solving skills, and the ability to communicate complex ideas effectively. In this challenge, you will have the opportunity to showcase your capabilities in two key areas: implementation/design and explanation/presentation.

Implementation Phase:

During this phase, you will demonstrate your proficiency in designing and implementing solutions to real-world problems. You will be presented with a series of scenarios that require architectural solutions. Your task will be to analyze the requirements, design a solution using appropriate technologies and best practices, and then implement the solution within a given timeframe. Your implementation will be evaluated based on factors such as functionality, scalability, security, and adherence to architectural principles.

Presentation Phase:

In the presentation phase, you will have the chance to articulate and defend your architectural decisions. You will be asked to present your solution to a panel of judges, who will assess your ability to communicate complex technical concepts clearly and convincingly. Your presentation should cover aspects such as the rationale behind your design choices, the benefits and trade-offs of your solution, and how it addresses the requirements of the scenario. Effective communication and the ability to engage with stakeholders will be key criteria for evaluation in this phase.

This challenge is designed to simulate the responsibilities of a junior solutions architect and provide you with an opportunity to demonstrate your skills in a simulated real-world environment. We encourage you to approach each phase with creativity, critical thinking, and attention to detail. You can use whiteboards, videos, decks or anything else to represent your ideas!

Good luck, and may the best architect prevail!

Challenge Description

We are part of a Harry Potter fan club and we want to construct a good web application that guides new members inside of the Hogwarts world. In order to keep moving forward, we assigned a contract with you to:

1. Implementation Phase:

- a. Key objectives
 - i. Construct a web application that consumes our API at least in the following resources:
 - 1. List of all Houses (/houses)
 - 2. Detail of each house (houses/:id)(/houses)
 - ii. Implement properly Amplitude to give us visibility of the users interaction inside the application
 - 1. All Pages Views
 - 2. At least 5 interactions events (Clicks, Submits, etc)
- b. Expected outputs
 - i. Design diagrams (High Level Diagram, Low Level Diagram)
 - ii. Application repository (inside Github)
 - iii. Application hosted somewhere (Desirable)

2. Presentation Phase:

- a. Key objectives
 - i. Conduct a technical overview meeting presenting the highlights of Implementation
 - ii. In this technical overview you should leverage the implementation to give an Amplitude introduction that answers the following points
 - 1. What is Amplitude?
 - 2. Events, Users and Properties (User Properties and Events Properties)
 - 3. Anonymous users x known users (User lifecycle)
 - iii. Construct a simple dashboard inside Amplitude that displays the following metrics:
 - 1. Most viewed House (Unique Users)

2. Page "All Houses" Viewed by Platform (Event Totals)


b. Expected outputs

- i. Introduce Amplitude efficiently
- ii. Articulate and defend your architectural decisions

Resources

- Wizard Open Api:

Swagger UI

 <https://wizard-world-api.herokuapp.com/swagger/index.html>

- Amplitude DOCs:

Amplitude Developer Docs - Amplitude Developer Center

Amplitude gives your teams a self-service digital analytics platform to understand your users, drive conversions, and increase engagement, growth, and revenue.

 <https://www.docs.developers.amplitude.com/documentation-home/>

- Amplitude Help:

Start Here – Amplitude

Get up and running on Amplitude immediately.

 <https://help.amplitude.com/hc/en-us/categories/16796426958235-Start-Here>