

Apollo Group Engineering – Case Study

On a [mission](#) to unlock the potential of technology in the world, Apollo is building consumer marketplaces that bring new types of services to consumers. Our first project is Pluto, a marketplace for consumers to hire trained blue-collar service providers. Customers will be able to hop onto our mobile application, select one of the services being offered and request a fully trained service provider within hours.

In order to build the app, our product team has decided that three components are crucial:

- A web-based admin portal
- A customer mobile application
- A service provider mobile application

Each of the above will offer a set of key functionalities required for various stakeholders in the marketplace. As an example, the admin portal will help our corporate team set the right configurations and settings on the platform. As part of our brainstorming sessions, the product team has requested your input on the following questions:

1. In building our product, in your view, which functionalities would be the most important to get right early on? Please provide the rationale behind your answer.
2. What should be the guiding principle that informs our thinking around which functionalities to include in the MVP version of the consumer application?
3. In order to ship the MVP quickly, our product team has identified that we can ship either the consumer application or the service provider application. In other words, due to time constraints, we need to pick one of the two and then work on launching that in the MVP. Which of the two applications would you consider more critical to include in the MVP and why?
4. How would you design the system architecture and choose appropriate technologies to accommodate the platform's expansion from an MVP to serving 50k service providers, 2M customers, and 500 admins/operational staff? In addition to addressing scalability, performance, and efficient workload management, how would you ensure the system's robustness, fault tolerance, high availability, and seamless user experience in the face of increasing demands?

Please note that there are no right or wrong answers. We are most curious to understand your thinking behind the responses and your unique approach toward problem-solving. We also anticipate candidates using AI tools to help answer and we don't see that as a problem as long as independent thinking is incorporated. During the case study, you may reach out to hussain.akbar@apollo-group.io if you have any questions.