

SENIOR SOFTWARE DEVELOPER

ABOUT ORMUCO

Ormuko is a software company that empowers businesses to easily build and operate applications and services through edge computing.

Our vision is to build the largest edge computing platform in the world.

Our mission is to be a leader in the deployment of edge computing as the preferred solution for data processing.

As a **Software Developer**, your principal tasks will be:

- Develop and maintain architectures, models, norms and strategic orientations in terms of systems and technology in order to reach the corporate objectives ;
- Document the software architecture according to the company standards ;
- Participate to project realization by analyzing, documenting and developing specific modules of the platform ;
- Work closely with the Product Owner and the Development Team for the project planning and delivery;
- Suggest new tools in order to improve architecture ;
- Support the team during project delivery ;
- Assist with on-call rotation, when needed

We are looking for someone that has:

- 8 years of development experience with Javascript/Typescript
- Experience with React + hooks, nodejs and redux frameworks and libs
- Strong understanding of the principles of scalable application design;
- Knowledge in Front-End web development (React, CSS, HTML);
- Experience using MySQL;
- Must have experience using Git in a distributed team.
- Must have database administration experience (MongoDB, MySQL);
- Experience with C++
- 2 years of experience with container orchestration (Docker, Kubernetes)

About you:

- You are curious and ready to challenge established ideas;
- You have the ability to work in areas outside of your usual comfort zone and get things done quickly;

- You have the ability to collaborate, communicate, learn and ship code, while working in a fast-paced and multi-cultural environment;
- You have at least 8 years of problem solving & software engineering experience;

TECHNICAL TEST

Question A

Your goal for this question is to write a program that accepts two lines (x1,x2) and (x3,x4) on the x-axis and returns whether they overlap. As an example, (1,5) and (2,6) overlaps but not (1,5) and (6,8).

Question B

The goal of this question is to write a software library that accepts 2 version string as input and returns whether one is greater than, equal, or less than the other. As an example: "1.2" is greater than "1.1". Please provide all test cases you could think of.

Question C

At Ormuco, we want to optimize every bits of software we write. Your goal is to write a new library that can be integrated to the Ormuco stack. Dealing with network issues everyday, latency is our biggest problem. Thus, your challenge is to write a new Geo Distributed LRU (Least Recently Used) cache with time expiration. This library will be used extensively by many of our services so it needs to meet the following criteria:

- 1 - Simplicity. Integration needs to be dead simple.
- 2 - Resilient to network failures or crashes.
- 3 - Near real time replication of data across Geolocation. Writes need to be in real time.
- 4 - Data consistency across regions
- 5 - Locality of reference, data should almost always be available from the closest region
- 6 - Flexible Schema
- 7 - Cache can expire

As a hint, we are not looking for quantity, but rather quality, maintainability, scalability, testability and a code that you can be proud of.

When submitting your code add the necessary documentation to explain your overall design and missing functionalities. Do it to the best of your knowledge.

Good Luck, you can write it in the language of your choice, name the test using the convention `firstname_lastname_test` and provide a link in your personal github so we can review the work.