

Fullstack Engineer candidate assignment

Accepted language

Nodejs with Typescript (preferably NestJS)

Task:

Manage a pizza restaurant

The restaurant receives an array of orders, each pizza order contains an array of toppings.

The dough-to-pizza pipeline is:

Dough chef → Topping chef → Oven → Waiter

The restaurant personnel are

- 2 dough chefs - each chef can handle a single dough at a time. It takes 7 seconds per single dough
- 3 topping chefs - each chef can handle 2 toppings at a time. It takes 4 seconds to put each topping on the pizza
- 1 oven which can contain one pizza at a time and cooks it for 10 seconds.
- 2 waiters serve the pizza to the customers. It takes 5 seconds to take the pizza from the kitchen to the table

The pizza moves through all the stations - there are no dependencies between the orders in the arrays - when an order is ready to be served, it is being served to the customer by the waiter.

- Each process should print logs - start and end time
- When all the orders have been served, print a report about the complete set of orders.

The report should contain:

The preparation time from start to end

The preparation time for each order

When the pizzas are ready - upload your code to Github, with a basic README.md file which includes execution instructions.

Bonus tasks

- Prepare a Docker container that will run the restaurant management system and have it ready for deployment.
- Save the report to a DB (MySQL or MongoDB) that runs in the Docker container.
- Create a simple react app that shows the orders with the current station