

ReasonLabs Full-Stack Home Task

Your task is to build a pizza restaurant management system using Reactjs and Nodejs.

Backend

Your task is to create a pizza restaurant management system.

The restaurant receives an array of orders (from the frontend), while each order is for one pizza that contains an array of toppings. The dough-to-pizza pipeline is:

Dough Chef -> Topping Chef -> Oven -> Serving -> Done

When a certain station within the pipeline is completed, the pizza moves to the next one. There are no dependencies between the orders in the arrays - when an order is ready to be served, it is deployed to the customer.

The restaurant personnel are:

- 2 dough chefs - each chef can handle one ball of dough at a time. It takes 7 seconds to prepare each ball of 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 - it takes one pizza at a time and cooks it for 10 seconds.
- 2 waiters to serve the pizza to the customers - from the kitchen to the table it takes 5 seconds.

Frontend

Your task is to create a UI for the pizza restaurant. This should include the following pages:

- Orders: Display all orders and the status of each order. The status (which stage of preparation the pizza is in - Dough Chef, Topping Chef, Oven, Serving, or Done) will be updated by WebSocket from the backend. Pizzas that have read 'Done' states will display how much time it took from Order to Done.
- New Order - create a new order - select pizzas and toppings.

Bonus Tasks

- Prepare a Docker container (or containers) to run the Frontend and Backend.
- Save the orders to a DB (MySQL, PostgreSQL, MongoDB) that runs in a Docker container.
- Create a sleek and user-friendly UI.