

# Full stack Developer Coding Exercise

An IoT company provide IoT devices to several different industries like agriculture, healthcare and transportations. They are building new UI applications to manage their device repositories.

## Task:

Build a UI application consisting of two pages, Industries and IoT devices.

- For the frontend side, use React 17 or higher
- For the backend, use Node.js 18 or higher programming language and develop a REST API

The UI application should provide the below functionalities.

## Industries:

UI application should be able to support:

- Listing the supported industries. (Search and ordering features are **optional**)
- Management endpoints to create, update and delete industries.
- The must have entities to define a new industry:
  - Unique identifier number that increases automatically (required)
  - Industry name (required)

## IoT Devices:

The company have a device warehouse to store the relevant devices for the industries supported. UI application should be able to support:

- Listing all the devices and be able to filter by industry. (Search and ordering features are **optional**)
- Management endpoints to create, update and delete devices.
- The must have entities to define a new device is:
  - Unique identifier that is increased automatically (required)
  - Device name (required)
  - Warehouse addition time (required)

- Fee of the device (required, min: 0)
- Linked industry (required, select from list of industries created)

**Technical Spec:**

- Use React 17 or higher for the frontend
- Use Node.js 18 or higher for the backend
- Any other components you feel are necessary if required

**Hint:**

**Clean Code:** Please consider your approach to **clean code**. We care about maintainable, efficient and readable code.

**Testing:** Unit and integration **testing** is very important for us. Please consider the **high coverage** of your unit & integration tests. Feel free to use any framework like Jasmine, Karma for your unit & integration tests.

**Data:** You are free to use a relational or NoSQL database in your design; however, ensure that you provide all necessary scripts required to set up and run the developed solution.

**Files:** Please provide all files that will be required to build, test or run the developed solution with step-by-step guide on building and running the application in a README file.

Push the developed solution to GitHub or GitLab and provide a link to your repository.