

Addis Software Test Project – MERN Stack

As a full stack developer you should be able to write both client side and server side codes. This test project will determine your ability to do that by using the **MERN** (MongoDB, Express JS, React JS & Node JS) stack. Develop your frontend as well as your backend applications based on their corresponding instructions and integrate them with each other to make it a **Full Stack Application**.

Backend : Develop a Rest API that will let you manage employees. Your API will be able to create , list, update and remove employees. You will only need to create one model to handle the employees data. The expected employee information are

- Name
- Date of birth
- Gender
- Salary

Use the technologies below to create your backend Rest-API.

- **Express JS** : To handle your requests.
- **MongoDB** : To store your data.
- **Mongoose** : To interact with MongoDB, model your data and to create your schema.
- **Docker** : Your backend application should be dockerized.

Frontend : Use the technologies below to create your frontend web application.

- **Typescript** : use typescript to write your codes. Try not to use the type **Any** as much as possible.
- **React JS**
- **Redux** : For state management
- **Redux – Saga** : (<https://redux-saga.js.org/>) To make calls to your Rest-API.
- **Styled Components** : (<https://styled-components.com/>) To style your application.

Note: Your frontend application should use the backend Rest-API you built to create, list, update and delete entries. You can decide how your application looks.

Hosting your applications on free platforms like Heroku is a plus. **Good Luck !**