

# Job Board Backend - README

## Overview

This is a **Job Board** backend built with **Node.js**, **Express**, **Sequelize**, and **MySQL**. The backend allows for managing users, companies, job offers, and applications, with features like authentication and CRUD operations.

## Prerequisites

Before you begin, ensure you have the following tools installed:

1. **Node.js**: [Download Node.js](#)
2. **MySQL**: [Download MySQL](#)
3. **Git**: [Download Git](#)
4. **Postman** or **Insomnia** (optional): For testing API endpoints.

## Getting Started

### Step 1: Clone the Repository

```
git clone https://github.com/your-repository/jobboard_backend.git
cd jobboard_backend
```

### Step 2: Install Dependencies

1. Install project dependencies by running:

```
npm install
```

2. **Sequelize** and **Nodemon** should also be installed for development purposes:

```
npm install --save sequelize-cli nodemon
```

### Step 3: Configure the Environment

1. Create a `.env` file in the root directory with the following content:

```
DB_HOST=localhost
DB_USER=root
DB_PASSWORD=your_password_here
DB_NAME=jobboard_db
DB_PORT=3306
JWT_SECRET=YourJWTSecret
```

Replace `your_password_here` with your MySQL root password if you have one.

## Step 4: Set Up the MySQL Database

1. Open **MySQL Workbench** or the MySQL CLI and create a database:

```
CREATE DATABASE jobboard_db;
```

Alternatively, use another name, but ensure that your `.env` file reflects this name.

## Step 5: Set Up Sequelize and Migrate the Database

1. Run Sequelize migrations to set up the database tables:

```
npx sequelize-cli db:migrate
```

This will create the necessary tables in your database.

## Step 6: Seed the Database

If you have seed files to populate the database with initial data (e.g., companies, users, or job offers), run the seeder:

```
npx sequelize-cli db:seed:all
```

This will insert the seed data into the relevant tables.

## Step 7: Start the Development Server

1. Start the server using **Nodemon** for automatic restarts during development:

```
npm run dev
```

You should see output like:

```
Serveur démarré sur le port 5000
```

This means the backend is now running at <http://localhost:5000>.

## Step 8: Test the API Endpoints

Use **Postman**, **Insomnia**, or any API client to interact with the API.

### Example API Endpoints

#### Signup User:

```
POST /api/users/signup
```

Request body (JSON):

```
{
  "name": "John Doe",
  "email": "johndoe@example.com",
  "password": "password123"
}
```

- 

#### Login User:

```
POST /api/users/login
```

Request body (JSON):

```
{
  "email": "johndoe@example.com",
  "password": "password123"
}
```

- 

#### Create Job Offer (Authenticated):

```
POST /api/offres
```

Headers:

```
Authorization: Bearer <your_jwt_token>
```

Request body (JSON):

```
{  
  "title": "Full Stack Developer",  
  "description": "Job description here...",  
  "salary": 45000,  
  "location": "Paris"  
}
```

- 
- **View All Job Offers:**  
GET /api/offres

## Step 9: Access the Database

You can manage and view the database using **MySQL Workbench** or another MySQL client. Use the credentials in the `.env` file to connect to your MySQL server.

## Project Structure

- **server.js**: The entry point of the application.
- **config/**: Contains the database configuration for Sequelize.
- **routes/**: Contains the Express routes for users, companies, job offers, and applications.
- **controllers/**: Contains the logic for handling requests.
- **models/**: Contains Sequelize models that define the MySQL tables.
- **seeders/**: Contains seed files to populate the database with initial data.
- **middlewares/**: Contains middleware like JWT authentication.

## Commands

**Start the server:**

```
npm start
```

- This runs the server using **Node.js**.

**Run in development mode:**

```
npm run dev
```

- This runs the server using **Nodemon**, which automatically reloads on file changes.

**Run migrations:**

```
npx sequelize-cli db:migrate
```

- This applies migrations to the database.

#### Run seeders:

```
npx sequelize-cli db:seed:all
```

- This populates the database with seed data.

## Troubleshooting

- **Error: Sequelize CLI not found:**  
If `npx sequelize-cli` is not recognized, ensure you've run `npm install --save sequelize-cli`.
- **Server won't start:**  
Ensure your `.env` file is correctly configured and your MySQL server is running.
- **JWT Authentication Issues:**  
Ensure you have set `JWT_SECRET` in your `.env` file.

## Conclusion

By following these steps, you should be able to set up and run the Job Board backend locally. Feel free to customize the backend or start building the frontend to interact with this API.

Happy coding!