# Code Test Assignment

## Preamble

Please follow the How-To section below for how to setup your dev environment. The following tasks assume that the Docker dev-node container is already started.

If all is setup properly, the following command should return "running" :

```
docker inspect --format='{{.State.Status}}' dev-node
```

Note: in this file all commands that start with `docker` should be executed from the host machine. Any other commands should be run from inside a running instance of dev-node container.

## Tasks

1. Fix all failing unit tests by implementing the required logic in the code under test to make all tests pass successfully.

2. Implement an API endpoint that adds a user to the database. Please analyze the mock data included in this project to determine which fields are required, and include the necessary data validation in your code.

3. Generate the test reports using:

   ```
   docker exec dev-node nyc npm test
   ```

4. Package your response using the following command, and submit the generated `submission.tgz` as an attachment.

   ```
   docker exec dev-node tar --exclude=node_modules -czvf
   submission.tgz /app
   ```

   Note: the archive should contain your updated *.js files as well as the generated test reports.

Good luck!

# How-To

## Create development environment

We have tested these instructions using Docker Version 17.12

1. Build the Docker image

   ```
   docker build -t demo/node .
   ```

2. Start development docker instance (in background)

```
docker run -d --name dev-node -p 3000:3000 -v `pwd`/app:/app
demo/node
```

3. Connect to development docker instance

```
docker exec -it dev-node /bin/sh
```

Now you can you execute commands inside the docker instance: E.g.

```
node --version
```

# Build and test the app

The following commands should be run from inside the dev-node docker container as needed.

1. Install app dependencies

```
npm install
```

2. Run all tests

```
npm test
```

3. Run and test the app

Start the app inside the container:

```
DEBUG=app:* npm start
```

Test the app from a different terminal on the host machine: E.g.

```
docker exec dev-node curl -v localhost:3000/api/v1/users/
setup-mock-data
```

```
docker exec dev-node curl -v localhost:3000/api/v1/users
```

or

Navigate to `http://localhost:3000/api/v1/users` in a browser on the host machine.