Employee REST API

Environment set up

Open a terminal and navigate to project folder to run the following

- 1. Install all the npm modules from package.json
 - a. npm i
- 2. Set up environment variable
 - a. Set port to 3000
 - i. Set PORT=3000
 - b. Set separate debuggers for levels debug and error in the app
 - i. Set DEBUG=app:*
 - c. Set NODE_ENV to development to look into the Morgan enabled cross cutting logging. Set it to production if you don't wish to see the logging.
 - i. Set NODE ENV=development

Project info: http://localhost:3000/readme.pdf

- 1. Git hub project location for
 - a. nodejs backend
 - i. https://github.com/smukherjee16/nodejs
 - b. Standalone frontend
 - i. https://github.com/smukherjee16/nodejs/tree/master/employee
- 2. Project file
 - a. Index.js main file with all the employees endpoint implementations
 - b. validations/validations.js validations rules for request params
 - c. tests/index.test.js unit tests for mostly validations
 - d. routes/emp.js Tried to set up a route for the employee's endpoints but running into issues. So left the implementations in index.js for now.
 - e. Routes/home.js this is a basic root endpoint route set up that works
 - f. Employee/ All the front end files for the stand alone ui.
 - i. References:
 - 1. https://www.tutorialrepublic.com/codelab.php?topic=bootstrap&file=c rud-data-table-for-database-with-modal-form
 - 2. https://github.com/uxsolutions/bootstrap-datepicker

Technologies/Tools

Tools: Visual Studio Code, Postman

Technologies: Node.js, HTML, JavaScript, CSS, RESTful Webservices

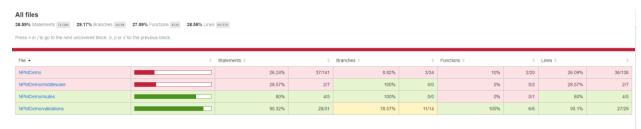
Testing Stats and Code Coverage

Run tests: npm test

```
C:\NodeJs>npm test
  npmdemo@1.0.0 test C:\NodeJs
jest --watchAll --verbose --coverage
                Morgan enabled for cross cutting logging in dev environment... +0
 app:debug Listening on port 3000...
PASS tests/index.test.js
   √ absolute
  testValidRole
        Valid roles test: TRUE (4ms)
        Invalid role test: INVALID FALSE
  testCanAddRole
        Only one ceo test: Add CEO: FALSE (1ms) Only one ceo test: Add MANAGER: TRUE
  testHireDateFormat
        Valid Hire Date format: YYYY-MM-DD: TRUE (2ms)
        Invalid Hire Date format: YYYY-Mon-DD: FALSE
  testHireDateInPast
       Valid Hire Date in past: 2016-03-20: TRUE (1ms)
Invalid Hire Date in pfutureast: 2026-03-20: FALSE
   findEmployeeById
        Valid id: TRUE (1ms)
Valid id: TRUE (1ms)
                                                                 % Funcs
File
                                 % Stmts
                                               % Branch
                                                                                 % Lines
                                                                                               Uncovered Line #s
                                                       100
                                                       100
 NodeJs/routes
 NodeJs/validations
                                                                                      93.1
                                                    78.57
                                    90.32
                                                                       100
                                                                                      93.1
Test Suites: 1 passed, 1 total
                  11 passed, 11 total
Tests:
Snapshots: 0 total
Time:
                  3.267s
Ran all test suites.
Watch Usage

Nation Usage
Press f to run only failed tests.
Press o to only run tests related to changed files.
Press p to filter by a filename regex pattern.
Press t to filter by a test name regex pattern.
Press q to quit watch mode.
Press Enter to trigger a test run.
```

Code Coverage



Employee Endpoints

Navigate to project folder in Terminal and run nodemon index.js

Task: Get all employee

Endpoint: http://localhost:3000/api/employees

Http Method: GET

Responses: Success: 200



Manage Employees						
ld	First Name	Last Name	Role	Hire Date	Message 1	Message 2
1	Mark	Anthony	VP	2017-12-10	messaege1	message2
2	Dave	Barton	MANAGER	2017-10-10	messaege11	message22

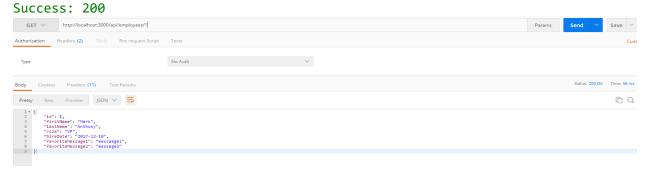
Task: Get employee by id

Endpoint: http://localhost:3000/api/employees/:id

Http Method: GET

Responses:

Id not found: 404



Task: Add new employee

Endpoint: http://localhost:3000/api/employees

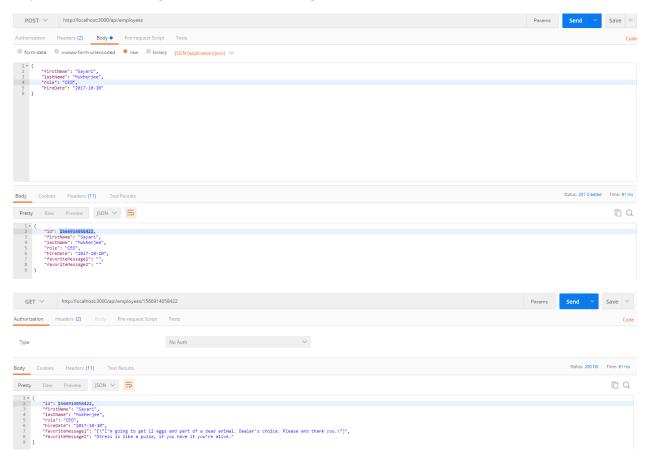
Http Method: POST

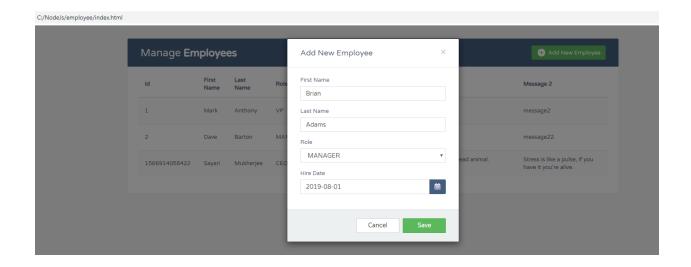
Responses:

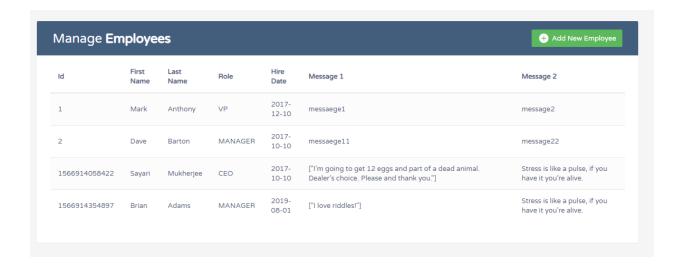
Validation failure: 400

Success: 201

Concerns: I have set up Promises chained to return the 2 favorite messages in the POST API call. But these 2 fields are not showing results. However, if I make a GET call to this new id or I do a GET all request, then the messages show. Need to investigate.





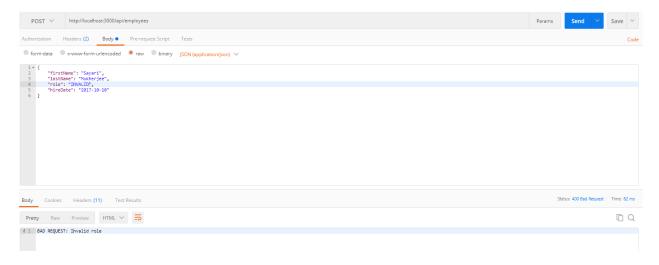


BAD REQUEST and ERROR HANDLING

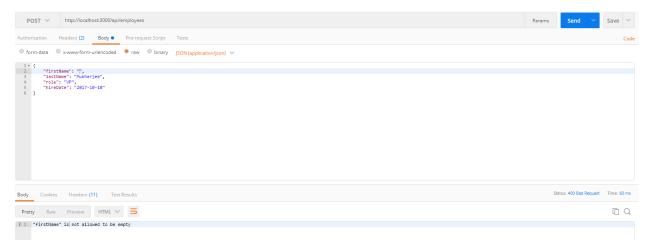
Create a new record using a randomly generated value as the unique identifier (i.e. _id field). Validate that the following fields are included in the POST body and have the right type/format as posted below:

- firstName (String)
- lastName (String)
- hireDate (YYYY-MM-DD format must be in the past)
- role (String) must be one of the following (case-insensitive):
 - CEO (can only be one of these)
 - VP
 - MANAGER
 - LACKEY

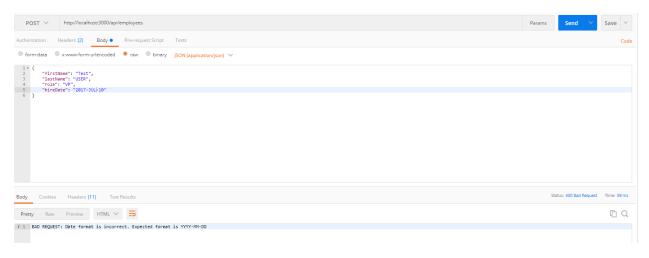
Invalid Role:



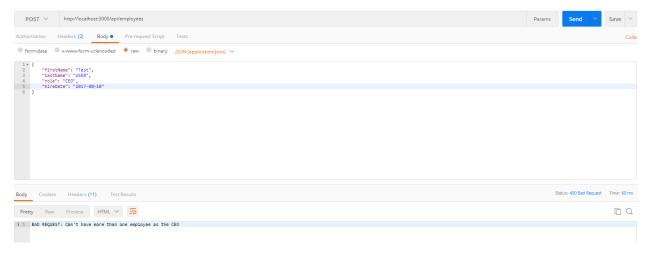
First Name/Last Name empty:



Invalid date format:



Only one CEO:



Task: Update employee by Path Param: id

Endpoint: http://localhost:3000/api/employees/:id

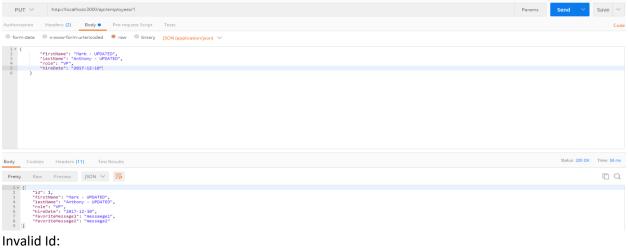
Http Method: PUT

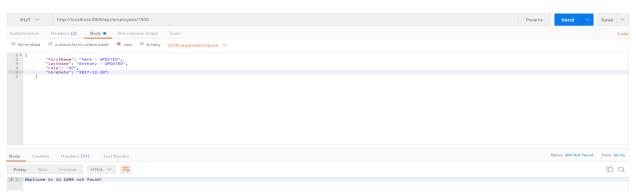
Responses:

Id not found: 404

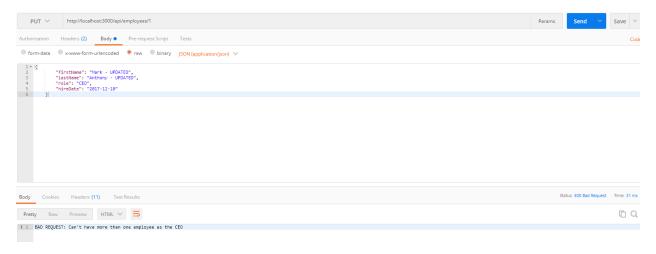
Validation failure: 400

Success: 200





Only one CEO:



Task: Delete employee by Path Param: id

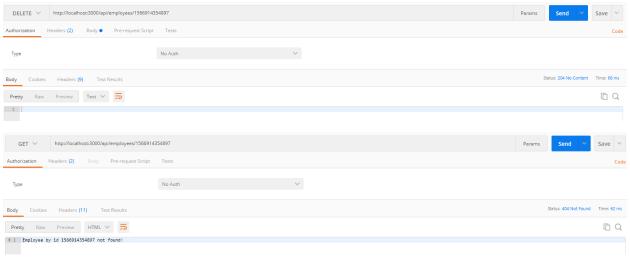
Endpoint: http://localhost:3000/api/employees/:id

Http Method: DELETE

Responses:

Id not found: 404

Success: 204



Invalid Id:

