

INDEX

1. GENERAL INSTRUCTIONS

2. ASSIGNMENT EXPECTATIONS

3. PROBLEM STATEMENT

4. PREFERRED TECHNOLOGY

5. EXPECTED FRONT END UX DESIGN

6. FAQ

1. GENERAL INSTRUCTIONS

- You can seek help from the Internet or anyone for learning and reference purpose.
- Whatever the reason may be, as a company we will never approve copying the source code from internet or any other source.
- At any time if you need any help, please do not hesitate to contact.
- Use GitHub and share the repository URL after completion.
- Need to send work progress status every day to the email in which you received this assignment.

○ For example:

subject: [Assignment update-day-1][YOUR_NAME]

Hello Shan,

I have completed front end designing and just started with database schema design.

2. ASSIGNMENT EXPECTATIONS

- Should solved all requirements with regards to the problem statement
- Should able to show a demo of the working solution locally by sharing a screen (discussion will be scheduled after assignment submission).
- Should be able to articulate their code logic and design clearly.
- Should know every bit of their source code.
- Should be able to debug the code by keeping breakpoints.
- Should be able to demonstrate source code versioning history in Github.

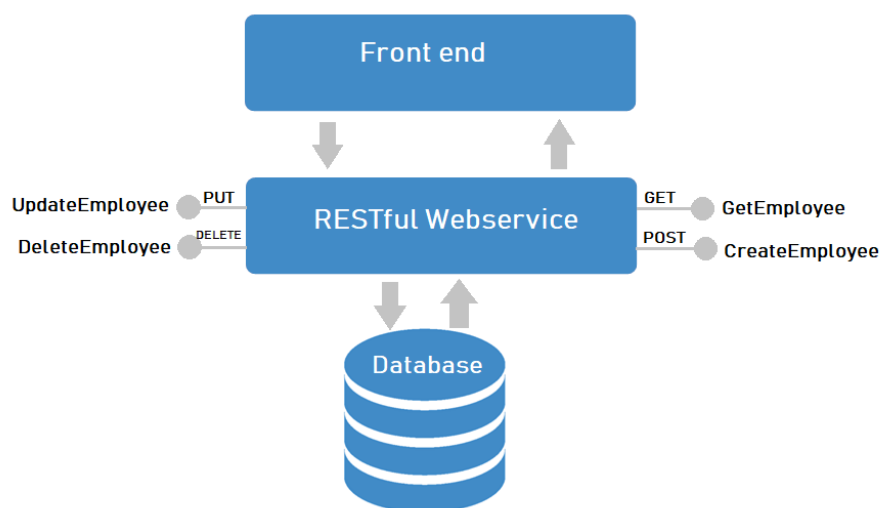
3. PROBLEM STATEMENT

Create single page web application (say employee management application) is to do following CRUD operations

- Create new employee information,
- Get existing employee information for the given employee id,
- Update a particular employee for the given employee id and
- Delete a particular employee for the given employee id.

All the data should be stored in the database, and it will be accessed by RESTful web service which in turn consumed by front end application. Please refer attached screen shots for the expected front end UX design. We know this is not the best design, so we are open to new intuitive UX design if you are interested to do so but keep in mind this should be your last focus for this assignment as we are more interested to see your skills in other areas

SYSTEM REQUIREMENTS OVERVIEW



4. PREFERRED TECHNOLOGY

FRONT END:



React.js (Latest stable version)

RESTFUL WEB SERVICE:



Node express.js

DATABASE



mongoDB MongoDB

IDE:



Microsoft Visual studio code (not Microsoft Visual Studio)

SOURCE CODE REPOSITORY:

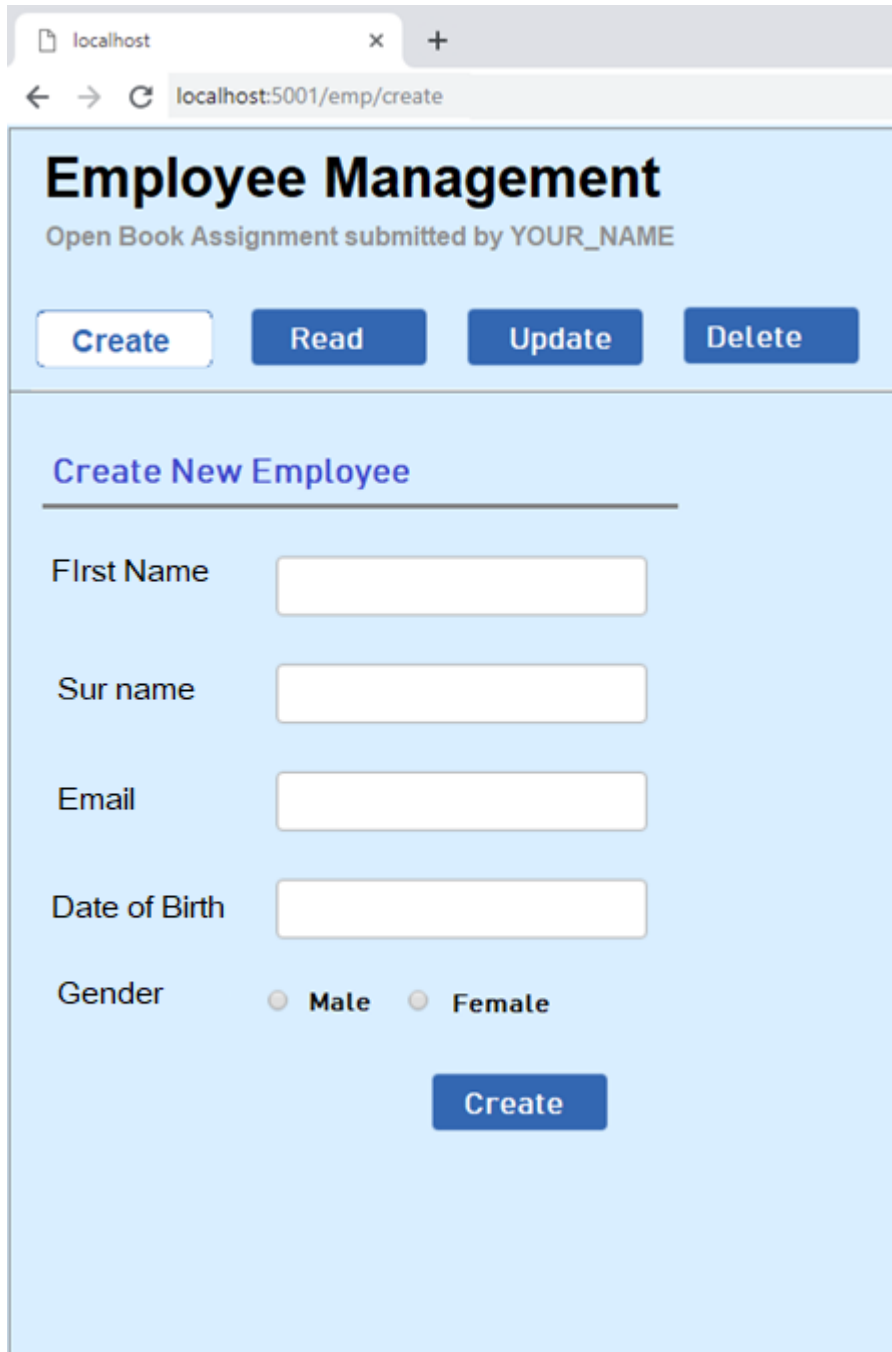
-  GitHub Github

MUST READ BEFORE ASSIGNMENT:

- Use Javascript ES6. Refer <http://es6-features.org/>
- React.js - <https://betterprogramming.pub/21-best-practices-for-a-clean-react-project-df788a682fb>
- Follow RESTful API Designing guidelines
<https://hackernoon.com/restful-api-designing-guidelines-the-best-practices-60e1d954e7c9>
- Use Axios to consume web service
Reference- <https://blog.logrocket.com/how-to-make-http-requests-like-a-pro-with-axios/>
- Use Async programming
<https://scotch.io/tutorials/asynchronous-javascript-using-async-await>

5. EXPECTED FRONTEND UX DESIGN

Create new employee information



localhost

localhost:5001/emp/create

Employee Management

Open Book Assignment submitted by YOUR_NAME

Create Read Update Delete

Create New Employee

First Name

Sur name

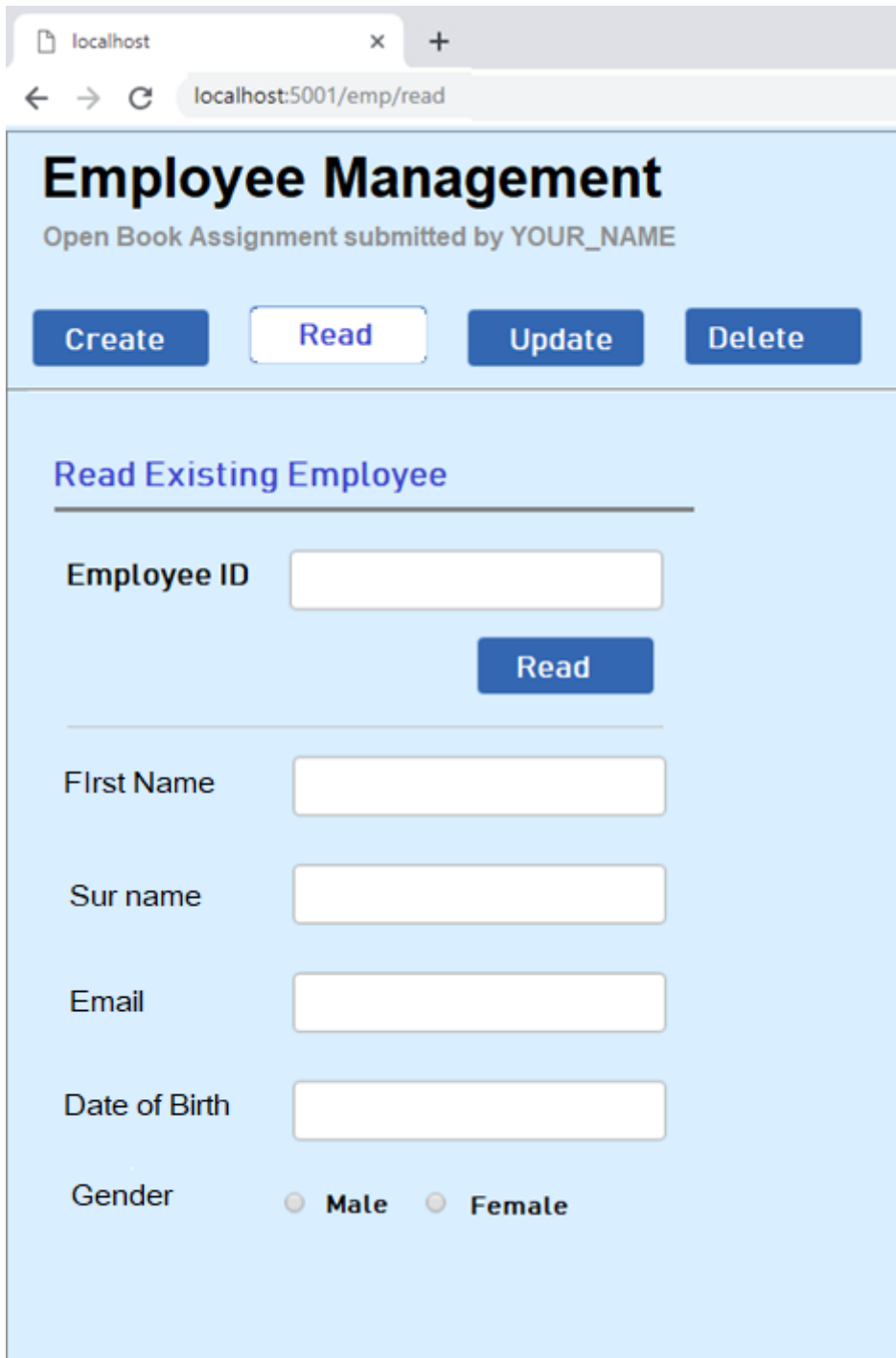
Email

Date of Birth

Gender ☐ Male ☐ Female

Create

**Get existing employee information
for the given employee id**



localhost

localhost:5001/emp/read

Employee Management

Open Book Assignment submitted by YOUR_NAME

Create Read Update Delete

Read Existing Employee

Employee ID

Read

First Name

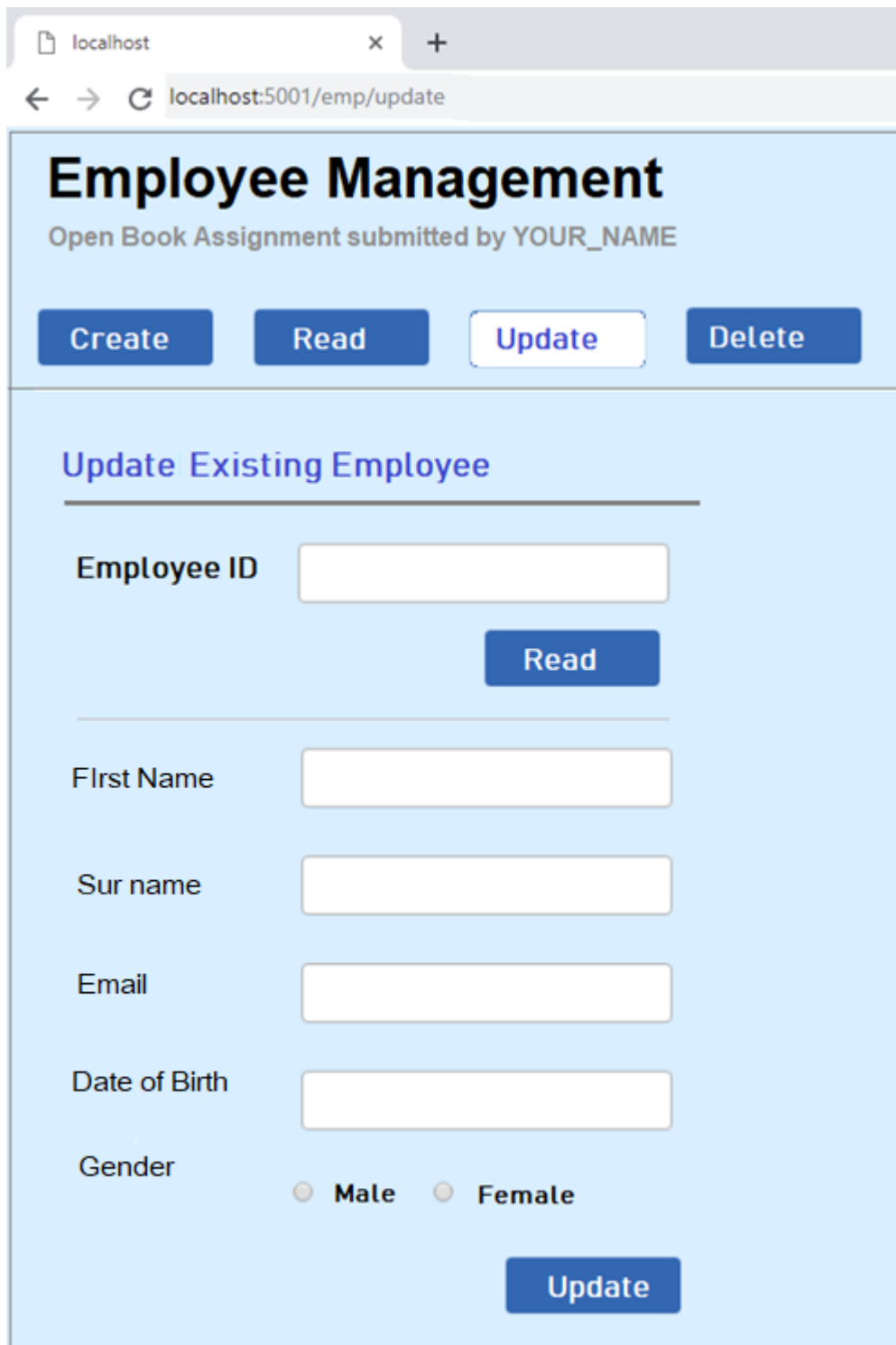
Sur name

Email

Date of Birth

Gender ☐ Male ☐ Female

**Update a particular employee
for the given employee id**



localhost

localhost:5001/emp/update

Employee Management

Open Book Assignment submitted by YOUR_NAME

Create Read **Update** Delete

Update Existing Employee

Employee ID

Read

First Name

Sur name

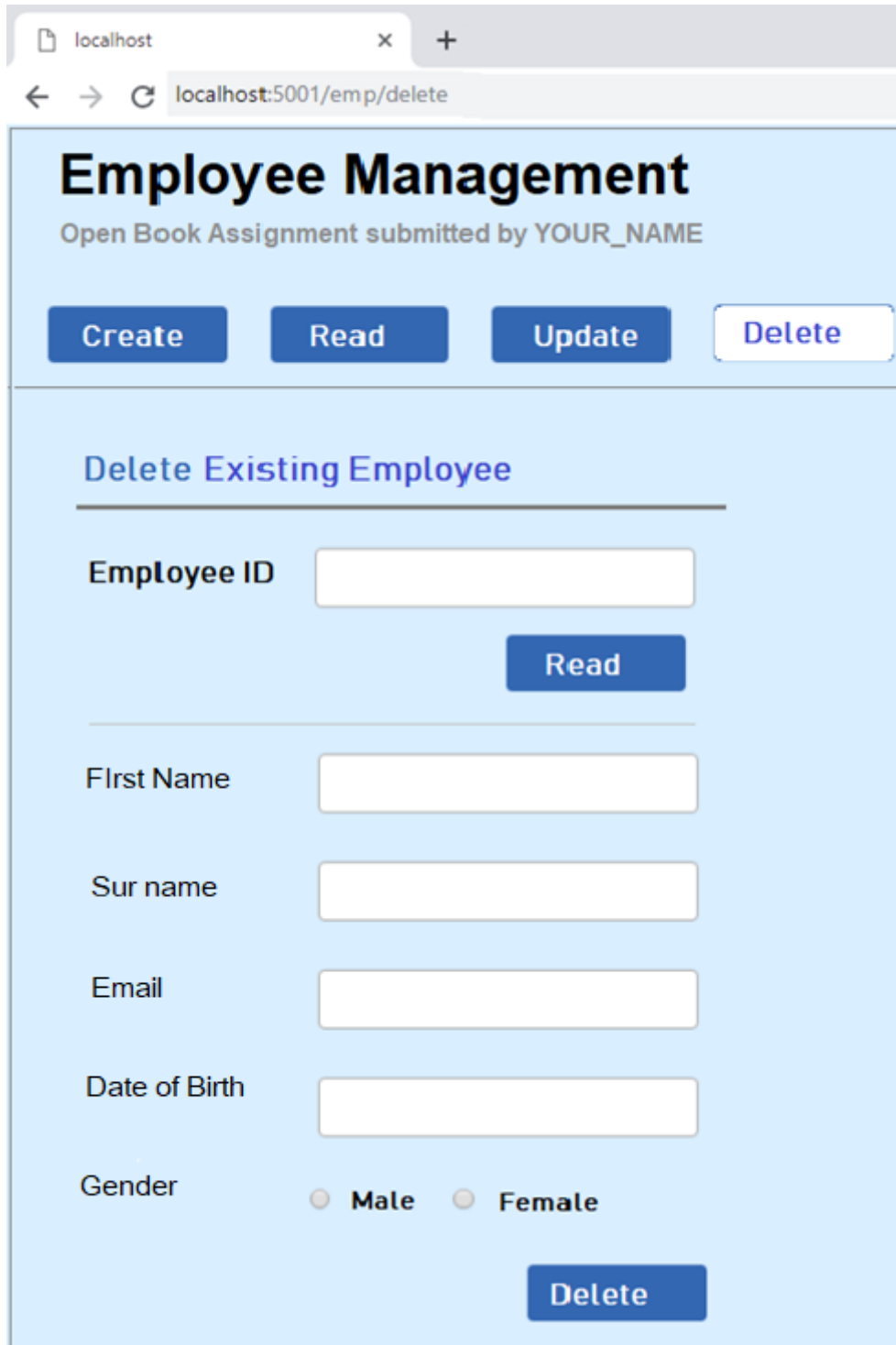
Email

Date of Birth

Gender ☐ Male ☐ Female

Update

**Delete a particular employee
for the given employee id**



localhost

localhost:5001/emp/delete

Employee Management

Open Book Assignment submitted by YOUR_NAME

Create Read Update Delete

Delete Existing Employee

Employee ID

Read

First Name

Sur name

Email

Date of Birth

Gender ☐ Male ☐ Female

Delete

6. FAQ

How assignment is evaluated?

This is evaluated by video interview through Skype or MS teams after assignment submission. During video call, your desktop needs to be shared which will last for about 1-2 hours. It is not an interview; it's just a discussion to establish that you have full control and confidence over your assignment code. Here goes typical agenda

- Show demo of your assignment
- Walk me through application flow by keeping breakpoints
- Answer queries/clarifications related to the assignment.
- Fix minor requirements on the fly during the session.
- General questions regard to Github commit, pull, fetch, push, merges.
- Quick feedback will be provided about your assignment what done well & areas of improvement.
- Q/A