

# Brilliant Hire Challenge (backend-end)

## Imagine a hypothetical situation.

Let's say, we had an intern who started working on the API for a few days and he/she had to leave in the project for some personal needs.

Now, you join our team as a backend engineer and take the ownership of refactoring the existing code and creating a new API to complete the Brilliant Lunch project.

The whole team is excited to see what you can complete in a few hours of your time. Quick, secure, clean, scalable and enterprise grade coding gets us excited! Happy coding. 😊

## Challenge: Code Refactoring

The intern had written some ~200 lines of the API code (for creating user, verifying user and getting user details) in **Node.js** before leaving. This was the first Node.js project for that intern and with just a few days of the time he/she managed to write a working code which is not of an enterprise grade.

You have to refactor that code having all the enterprise standards in place. The code written by the intern is present in "**BrilliantLunch.js**" file. Use of **typescript** would be great else use plain JavaScript.

Here are 10 tips from our side, but you can go way beyond it!

1. Modularize the code. Use HTTP methods, status codes and API routes with proper API names.

2. Follow ES6 or Typescript coding standards. Make best use of comments!
3. Use ESLint and a Style Guide (Ex: [Airbnb style guide](#))
4. Have a standardized error handler and logging.
5. Implement a robust and secure login mechanism.
6. Implement the MySQL queries wisely. Use an ORM library if possible.
7. Make use of promises or async/await.
8. Have a standard way of validating request parameters for data type, size, range, format, expected values etc.
9. Implement a Black-Box testing module for your Node.js REST APIs.

You can refer [this link](#) for addition best practices.

### Instructions:

1. This challenge might take you around 3 hours to complete so plan accordingly.
2. Upload your code in a public repo in github and share the link with us.
3. If you have any doubt, make an assumption and complete the challenge. We want everyone to have the same information for solving the problem.
4. We are interested in your code quality, best practices, your **thought process** and your **back-end knowledge**.
5. You can use the README file in your git repo to explain your thought process while solving the challenge.