

# BACKEND ENGINEERING TASK

TOTAL TIME: 240 MINUTES

Your task today is to create a simple REST application from scratch. To reduce implementation time, please use the NestJS framework (**this is a MUST, don't use any other framework**). The application should implement a nodeJS server API communicating with this: <https://reqres.in/>

Please use the following prerequisites below:

- use TypeScript 3.4 and above.
- use NestJS Framework, <https://docs.nestjs.com/>
- use MongoDB 4.4 and above
- use RabbitMQ 3.7 and above

Your REST app should consist of:

**1. POST /api/users**

On the request store the user entry in db. After the creation, send an email and rabbit event. Both can be dummy sending (no consumer needed).

**2. GET /api/user/{userId}**

Retrieves data from <https://reqres.in/api/users/{userId}> and returns a user in JSON representation.

**3. GET /api/user/{userId}/avatar**

Retrieves image by 'avatar' URL.

On the first request it should save the image as a plain file, stored as a mongodb entry with userId and hash. Return its base64-encoded representation.

On following requests should return the previously saved file in base64-encoded representation (retrieve from db).

**4. DELETE /api/user/{userId}/avatar**

Removes the file from the FileSystem storage.

Removes the stored entry from db.

The main goal of the task is to show your skills in the best way possible.

(please check next page)

## Done?

1. Your project passes eslint
2. The project builds and can start
3. All endpoints can be requested from postman
4. Data is stored in database successfully and rabbit event is emitted
5. **Your application is covered with unit/functional tests**

Once the task is completed, **compress the files/folder as a .zip (exclude node\_modules)** file and upload it using the form link from your email. In addition, please always provide a readme.md with instructions on how to build/run/test..