

Skrate Calibre Backend (Node) Feature Building

Greetings Candidate,

Here is your Problem Statement for Round 2 of the Calibre Test.



Tech Stack:

- NodeJS as the server side runtime
- Express as API frameworks
- MongoDB as the database

Task:

- You are expected to create an API with a set of endpoints for a ticketing system backend, as explained further.
- A User Registration Endpoint (**/users/new**), has to be a **POST** request, and accepts “**username**” and “**role**” as Body Parameter and returns an **Auth Token**.
 - username - shall be unique
 - role - [admin, employee]
 - Auth Token - shall be required as Bearer Token for all other endpoints, otherwise requests will return Unauthorised
- A Ticket Raise Endpoint (**/tickets/new**), has to be a **POST** request, and accepts “**title**” and “**description**” as Body Parameter and returns an **ID**.
 - title - need not be unique
 - Ticket can only be raised when **Auth Token passed is of Admin**
 - schema of ticket:

```
{
  id (auto-generated)(unique)
  title: string
  description: string
  status: (initialised to 'open') (can be set to 'close')
  priority: (can be set to 'low', 'medium' & 'high') (default: 'low')
  assignedTo: any employee username
  createdAt: (auto-generated) time
}
```
- A **GET** endpoint (**/tickets/[param]**) which can accept various params in url as query to return specific ticket objects
 - **/tickets/all** will return all tickets
 - **/tickets/?status=open/close** returns tickets according to status
 - **/tickets/?title=** searches for the particular title
 - **/tickets/?priority=low/medium/high** returns ticket according to priority

- A Ticket closing endpoint (**/tickets/markAsClosed**), has to be a **POST** request, and accepts **ticketID** as body param.
 - **Auth Token of the user assigned to the ticket can only** close the request or the admin, any other token should return unauthorised
 - **Ticket cannot be closed if another higher priority ticket has been assigned to the same user**, returning error 'A higher priority task remains to be closed' and also returns all tasks of higher priority
- A Ticket deletion endpoint (**/tickets/delete**), has to be a **POST** request, and accepts **ticketID** as body param. (**Only Admin can delete tickets**)
- Use **Morgan** to log all requests on a file and make it **publicly accessible**
- Deploy your APIs (you can use Heroku)
- Make a 2-5 mins video giving a demo and explaining your code and share the link (**GDrive**).

Evaluation Criteria:

- The APIs should match the instructions given as closely as possible
- Code cleanliness & structure
- Use of TypeScript would be commendable
- Ability to explain one's own code
- Commits frequency and relevance

Submission Process:

- Make a GitHub repository, and keep it public.
- Your project in its deployable state shall be uploaded on the repo for us to check it out.
- Mention the deployment URL in the readme.
- Mention the demo video URL in the readme.
- Mention the Log File URL in the readme.
- Fill out the readme of the repo with instructions to run the project.
- Go to <https://www.skrate.co/home>
 - Login to view your test applications
 - Go to the particular test application
 - Under the feature building round you will see an option to submit

Any issues during the assignment, please report quickly to calibre@skrate.co and also join our [Discord](#) to quickly ask doubts and stay updated.

Best of Luck!
Team Skrate