

Prescreening Test for Back-end Mobile Developers (Node.js /Typescript)

Dear Candidate,

Thank you for your interest in joining our team as a Back-end mobile developer. Before proceeding with the interview process, we would like to assess your skills by conducting a prescreening test. This test will focus on your ability to develop the backend API as part of a microservice for a community feature in a cross-platform mobile app. This feature includes a General board where users can interact with posts, comments, and categories.

Requirements:

Post Management:

- Create an API endpoint to allow users to create a new post. A post should include an image, content, and a selected category.
- Implement API endpoints for editing and deleting a user's own posts.
- Develop an API endpoint to retrieve a list of posts with their timestamps, user information (name and picture), and post details.

Interactions:

- Create API endpoints for upvoting and downvoting posts.
- Implement an API endpoint for adding comments to posts and replying to comments.
- Develop an API endpoint to retrieve comments for a specific post, including user information (image, picture, username) and timestamps.

Sorting and Filtering:

- Allow users to view posts sorted by the time they were posted and by the number of upvotes.



- Create an API endpoint to filter posts by categories, especially focusing on health topics (e.g. Kidney, Liver).

Data Presentation:

- Ensure the API responses include relevant information such as view counts, upvote/downvote counts, and reply counts for each post.

Security and User Permissions:

- Implement user authentication and authorization to ensure that users can only edit or delete their own posts.
- Secure the API endpoints to prevent unauthorized access.

Performance Optimization:

- Optimize database queries for fetching posts and comments for improved performance.
- Ensure the API responses are efficient and don't overload the server.

Instructions:

- **Programming Language:** For this purpose, we are building with Nest Js / Node Js. (Typescript) for a cross-platform Mobile application.
- **API:** You are to use REST APIs, but incorporating gRPC will demonstrate advanced knowledge.
- **UI:** We have created the community screens for the mobile app using Figma. You can access the UI by following the link provided below. You are required to interact with the prototype and build the API endpoints. Figma UI Link: [\[Follow the Figma link here\]](#) You can request edit access if you need to; one of the reps will verify you.
- **Submission:** You can publish your code on your GitHub repo. Alternatively, you can also comment on this paragraph with your GitHub username so you can be invited. You should get an invite link ASAP. If you choose to publish your code in your personal GitHub, kindly invite ([megaexeglobal](#)) as a collaborator to the repository for review.
- **Points to note:** Create A brief "Read Me" document outlining the approach you took to solve the tasks, any challenges/bugs faced, and how you overcame them.



- Consider database design and schema, data validation, error handling, and security best practices.
- Provide clear API documentation or sample requests/payload for each endpoint. (You can use Swagger, Postman, or Google Docs).
- Your solution should be well-organized, modular, and maintainable.

Evaluation:

Your solution will be evaluated based on the following criteria:

- Speed
- Functional completeness and correctness of API endpoints.
- Data modelling and schema design.
- Code quality, organisation, and readability.
- Security measures implemented.
- Query optimisation and performance considerations.
- Handling of edge cases and error scenarios.
- Please submit your code repository or a zip file containing your code along with any necessary setup instructions and documentation.

Additional Information:

Please complete the test within 24 hours of receipt of this email. You do not need to finish the entire requirements. But finishing it entirely will count towards your proficiency.

If you have any questions or encounter any issues during the test, feel free to email us. We wish you the best of luck with the prescreening test. We look forward to reviewing your solution and welcoming you to our team!



SIGNED
JOHN ODOEMENEM

