**Anshul Kumar: NodeJs Developer Assignment Report**

When I started working on the **“Asset Trading Tracker”,** I took a systematic approach to be sure everything is well-planned.

First, I made sure I understood the core requirements of app. Basically, it needed to handle the asset trading and handling the ownerships and creation of the assets. From there, I identified the main features and key functionalities.

For the backend, I focused on making up the right structure. I created **MongoDB** **models** for User, Assets, Requests, etc and made the necessary fields and relationships like **“currentHolder”** of the asset, **“trading Journey”** in the Assets model, etc.

Then, I built controllers for handling all the operations related to assets, user interactions and requests. I have also made some extra functions while thinking about expandability of the app as well like we can also **”retrieve a request”, “get User Request”** without sending the user main Id as the params, etc.

As I developed the routes, I organized them to handle the **CRUD** operations for assets and requests, with specific routes for **creating**, **updating**, **retrieving**, **accepting** and **denying** the request.

I paid a lot of attention to the details and using validation and authorization as well as error handling, making sure the app returns the meaningful feedback even if there’s an error.

For the trading process, I made sure that when an asset is traded, all the necessary updates are done like: adding the transaction to trading Journey of the asset, updating the owner of asset and removing the asset from current owner owned Assset and adding it to new owner’s.  
  
Testing was an important part of my process as well. I wrote thorough test cases using **Jest** and **SuperTest** to cover all the possible scenarios and user input and validate the input as much as possible.

Throughout the app, I mainly focused on making only the one part of a project at a time and ensuring it is fully functional before integrating it to the other parts.  
  
When I encountered challenges, I didn’t hesitate to seek guidance especially when dealing with writing test cases. This project was a great learning opportunity for me and I made sure to understand each step before moving forward.

Overall, I focused on building a robust backend with clear, testable and maintainable code, with enhanced security and performance in mind.

Regards,

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