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Gram Power Technical Test

Programming Assignment

At Gram Power, we push our engineers and design team to build beautiful and highly intuitive user interfaces for our consumers and at the same time our team is expected to build software that scales. We handle gigabytes of data on a daily basis and visualizing, analyzing and managing this data is a core requirement of our technology. This assignment will test your design skills, code quality, and understanding of front end and site deployment technologies. While you design and implement your solution, we expect you to think carefully about how your software will behave when it is used at scale.

The task at hand is to create a CI /CD pipeline from scratch in which you can use simple applications or scripts.

Following functionalities should be there:

1. Write a simple script .(can be a HTTP server serving hello world) or use any sample application.
2. Commit the code to github repository .(or any version control system)
3. Pull the code from github.
4. Compile the code and run test cases to test the working of code (unit testing)
5. Create a docker image of the script written above .
6. Pull the latest code every time it is updated from the master branch .
7. Then push the docker image created from script to a repository like docker hub .
8. Get the image from docker hub .
9. Finally use the image to deploy a container .
10. Make sure the script or sample application running on the container is working as it is which is run and compiled on locally.

Points to be remember:

- All configurations should work on a local machine .

- For CI / CD jenkins or git actions is preferred .
- Provide proper documentation with each step and self explanatory codebase.
- All steps and instructions are written carefully for how to run the functionalities and CI /CD Pipeline using 1 click or automated way.
- Use your own infrastructure for demonstration and setup all tools.

--All the Best!--