Design Task

Guidelines:

- The candidate should capture the results of the task in a feasible format and share with the Xgrid team member. Please note that the spirit of this test is to give you interesting technical challenges, and not consume your valuable time with fancy documentation. Screen captures are perfectly acceptable.
- Be prepared to explain your approach and outcome, if asked by a Xgrid team member
- **Do not hesitate** to ask questions if clarification is needed.
- Timelines: You have 2 days from the date of issue of test to complete it. You are welcome to submit your results early if you have completed the test. We understand that you will be completing these tasks while managing other work and personal commitments. So feel free to work with your Xgrid contact, if additional time is required. Please keep in mind that the general assumption we make in your evaluation is that you asked for the task and worked on it during your free time.
- Good luck and have fun! We hope you will enjoy the tasks as they are a brief overview of what you could be doing if you join our team at Xgrid. ☺

Tasks:

Deploy a WordPress application (two-tier app with a DB) in a Kubernetes cluster.

1. Use NFS as a backend storage for the database.
2. Use ingress to expose the application to the outside world. (Recommended URL: wordpress.xgrid.co)
3. Use init containers to log the IP of the worker node on which the database POD/deployment is being brought up. You have to make a docker container which takes the file location on the host machine and worker node IP as an input and writes the IP in the specified file. The idea is to maintain a log file containing the IPs of worker nodes where DB comes up after restarting.
4. Specify resource limits in all yaml files wherever applicable.
5. Use secrets/config maps wherever required.

Deliverables:

- Access to the setup.
- Create a GitHub repository containing the code and documentation for this task. **This should be a private repository that is shared only with 'xgrid-all' user as a contributor.**
- All yaml files used to bring up the application.
- Dockerfile(s) created for the task.
- All the design decisions, explanations, and detailed instructions of the solution should be part of a "Readme.md" file on the GitHub project.

Requirements:

Take all the shortcuts necessary to complete the task in time. The main aim of this exercise is to gauge the applicant's ability to use all the required tools to develop a functioning project. The goal is to create a working demo. Prioritize showing a working demo of the setup over completing all the needed features. Create README/installation instructions for the steps being followed.