NPONTU TECHNOLOGIES

INTERVIEW QUESTIONS [ENGINEERING DEPARTMENT- PLATFORMS DEVELOPER OFFICER INTERN]

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QUESTION:

Build a simple health check service that monitors 3 endpoints and exposes metrics via /health. Then write a brief analysis of what happens when one service goes down and how you'd detect it in production.

SOLUTION

Names of 3 Endpoints used:

1. **/api/v1/users** – Simulated Users Service
2. **/api/v1/db-check** – Simulated Database Service
3. **/api/v1/payment-status** – Simulated Payment Service

BRIEF ANALYSIS:

When one of the services goes down, the health check at /health immediately reflects the problem. In this case, the database service is returning a 503 status code, so the /health endpoint shows it as "DOWN" while the other two services remain "UP." This makes it easy to see which part of the system is failing without having to check each service manually.

In a production environment, health checks like this are usually connected to monitoring tools. For example, you could set up alerts through Prometheus, Grafana, or a cloud provider's monitoring service. These tools would regularly call /health and notify the operations team if one of the services is unavailable. That way, issues such as a database outage can be detected quickly, and the team can respond before users start experiencing serious disruptions.

GitHub Repository link: https://github.com/wireduuu/health-service.git

Live Hosted App (Render): https://health-service-app.onrender.com/

Sample Output Screenshot (Health Service Dashboard):