

TASK 3:

The responses came back a bit too slow, the collection runner returned over 600ms on an average. I'd recommend some of the following strategies to improve the speed of responses (if they are not currently being implemented):

1. Optimizing database queries using indexing, and splitting larger databases into smaller and less cumbersome units.
2. Caching using HTTP Caching, caching frequently accessed data to reduce database load, and in-memory caching using tools like Redis.
3. Optimize application code as much as possible, especially in the use of data structures and algorithms.
4. Server configuration is another factor that can really influence the speed at which network calls return responses.
5. Lastly, I'd recommend rate limiting and throttling to prevent abuse of the server through overloading. This might not exactly improve the speed, but it'll ensure a fair usage of server resources.

TASK 4:

When it comes to typical security issues associated with APIs, there are quite a number of them, but some of the most common are:

1. Insecure communication. For instance, you could have sensitive data transmitted over HTTP instead of HTTPS.
2. Not logging enough data so that even when the system is monitored, attackers can hit the system and won't be detected.
3. Injection attacks where bad and dangerous data is sent as part of the request, leading to execution of malicious commands

NOTE:

In the course of trying to carry out this test, I couldn't find the three endpoints in the documentation. However, using the GPT assistant, I had the endpoints and request bodies, and the base URL. The response returned HTML instead of JSON (as expected).