Task System

v.1.2

Your job is to build a highly scalable processing backend that handles "tasks". Each task could be between 1-20 seconds long and each produce a result that the client of the backend wants.

The solution should be a backend using a Restful API for the job, preferably using either a polling or a notification/callback scheme to get the result. Design it in a suitable way for a very intensive environment that may have over 400+ calls per second. Think how the application would scale with such load.

You may,

- use a message queue and/or broker, and you should use a restful web-framework.

- have multiple applications, and multiple instances of each application.

You should provide,

- small information overview of the chosen architecture

- provide which frameworks/libraries you would use

- prefer actual code or code fragments, of each important piece. (pseudo code may be used as well)

- small documentation for each API method that you make available.

- discussion/reflection of potential issues that may arise when using this system that you intend to build. Scalability is important.

Notes:

- The solution / application does not have to be runnable, but it should be obvious that you can build/create it, given the information you provide as the solution.

- Solution should be based on Java and Spring ecosystems.