Programming assignment

Context

IoT devices send out continuous data which we want to collect (e.g thermostat, heart rate meter, car fuel readings, etc).

Your task is to build a pipeline via which we can process the IoT data in a scalable manner. In addition to that, we want to have a secure web service for querying the readings (e.g average/median/max/min values) of specific sensors or groups of sensors for a specific timeframe.

We do not expect a production ready system, but it should be a good working prototype.

You may use any publicly available open source tools and libraries, but we prefer if the solution is Java based.

Requirements

- Simulate data for at least 3 IoT devices which send out a value every second
- Scalable and extendable to work with more IoT devices
- Fast
- Self-contained

Your submission should contain the following

- Source code
- Short description of the approach and limitations of the implementation
- Instructions on how to run and how to access the service

Evaluation criteria

- Ability to transform vague requirements into a working system
- Code quality
- Design scalability
- Robustness of the implementation

Good luck!