A Quick Profile for my submission on Slice Assignment
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1 Project Environment and Installation

Language: Java, IDE: Eclipse, Operation System: Linux, Build Tool: Gradle, Framework: Spring (MVC, Concurrent, Test, Cache), Test: Junit, JMeter, Other third party software: Maven, Guava, jstl, Server: tomcat,

2. Installation and Test:

The project includes a simple view to test, HTTP endpoint: http://localhost:8080/SliceAssignment/ for local access and test, web context root is /SliceAssignment/, the submit URL is http://localhost:8080/SliceAssignment/submit , rendered by submit request.

3. (a). Design: Http request are handled by Spring Controller, RequestController, which accepts and handle multiple requests by ThreadPoolTaskExecutor, pool size, queue capacities are configured in spring-config.xml.

(b). To count the request number on certain word, an AtomicLongMap is greated as server start, which provides thread safe implements on counting request numbers, supported by google Guava.

(c). To get the Appear number of certain word through the resource list, use Spring cache to record the previous checked word's appear number directly from cache rather than search through resource every time to save time and improve performance.

(d). Two Junit tests are included, one is to test KeyWordSearchservice get existing record from cache, another is to test TaskExecutor multiple threading handles.

(e). One simple JMeter test plan is included to simulate multiple user situation on processing requests.

4. Project Structure

```
SliceAssignment
    src
        com.slice.assign.beans
            RequestBean
        com.slice.assign.Controllers
            RequestController
        com.slice.assign.Services
            KeyWordSearchService
        com.slice.assign.test
            KeyWordSearchServiceTest
            TaskExecutorTest
    Spring.config.xml
    resource
        fileList
        config.properties
    webContent
```

```
    WEB-INF
        display
            index.jsp
        lib
        slice-servlet.xml
        web.xml
build.gradle
pom.xml
input.cvs (for JMeter test)
README.txt
```