# Backend Challenge

## Assumptions

- Web server will not send a message containing an ID once it has sent a DONE message already before. In other words, ID message will never come from any source after a DONE message of that source.
- The web server will not terminate itself before application had a chance to sink all data to it. It is observed that for large data-set (n > 10,000) the web server terminates itself in 6 seconds which is not enough for application to sink remaining data to web server. This 6 seconds timeout needs to be increased when processing large data-set. Ideally, there should be no timeout. Instead web server should terminate only after it has received all data from application.
- Application needs Java 8 to compile and run.

## How to build

Extract the raisin-solution.zip file into any folder. It will create raisin-solution directory on extraction. Change directory to "raisin-solution". It contains pom.xml in it. Then run mvn command as shown below to build the application.

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**How to build**

```
$> cd raisin-solution

$> dir
11/26/2017  12:05 PM     2,655       pom.xml
11/22/2017  09:18 AM     <DIR>         src
11/26/2017  01:01 PM     <DIR>         target

$> mvn clean compile assembly:single
```

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This will create "raisin-solution-1.0-SNAPSHOT-jar-with-dependencies.jar" file under raisin-solution/target folder.

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**How to build**

```
$> cd target

$> dir
11/26/2017  01:00 PM     <DIR>         archive-tmp
11/26/2017  01:01 PM     <DIR>         classes
11/26/2017  01:00 PM     <DIR>         generated-sources
11/26/2017  01:00 PM     <DIR>         maven-status
11/26/2017  01:01 PM     <DIR>         test-classes
11/26/2017  01:00 PM     12,315,576
raisin-solution-1.0-SNAPSHOT-jar-with-dependencies.jar
```

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## How to run

Go to the folder containing the "raisin-solution-1.0-SNAPSHOT-jar-with-dependencies.jar" file (raisin-solution/target).

First run the python web server and then run following command in another terminal.

| **How to run** |
| --- |
| `$> cd target`<br>`$> java -jar raisin-solution-1.0-SNAPSHOT-jar-with-dependencies.jar` |

Log file "raisin-solution.log" will be created in the same folder from which above command is executed.