README

Lab 2: Hazelcast basics

GitHub: https://github.com/alorthius/microservices/tree/hazelcast_basics
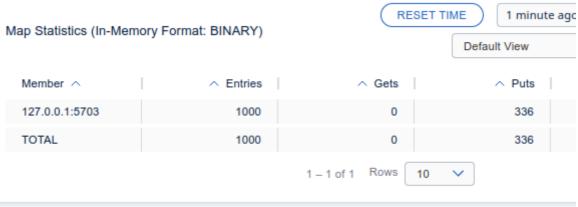
Task 1

Map Statistics (In-Memory Format: BINARY)
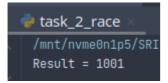
RESET TIME   1 minute ago

Default View

Member ^		^ Entries		^ Gets		^ Puts	
127.0.0.1:5701		340		0		340	
127.0.0.1:5702		324		0		324	
127.0.0.1:5703		336		0		336	
TOTAL		1000		0		1000	

- After shutting down first member:

Map Statistics (In-Memory Format: BINARY)

RESET TIME   1 minute ago

Default View

Member ^		^ Entries		^ Gets		^ Puts	
127.0.0.1:5702		520		0		324	
127.0.0.1:5703		480		0		336	
TOTAL		1000		0		660	

1 – 2 of 2   Rows   10 ∨

- After shutting down second member:

Map Statistics (In-Memory Format: BINARY)

RESET TIME   1 minute ago

Default View

Member ^		^ Entries		^ Gets		^ Puts	
127.0.0.1:5703		1000		0		336	
TOTAL		1000		0		336	

1 – 1 of 1   Rows   10 ∨

Task 2

- a. Raced:

  ```
  🐍 task_2_race  ×
  /mnt/nvme0n1p5/SRI
  Result = 1001
  ```

- b. Pessimistic:

  ```
  🐍 task_2_pessimistic  ×
  /mnt/nvme0n1p5/SRINUX/
  Result = 3000
  ```

- c. Optimistic:

  ```
  🐍 task_2_optimistic  ×
  /mnt/nvme0n1p5/SRINUX/
  Result = 3000
  ```
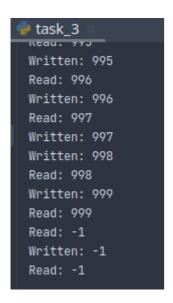
Task 3

- The readers have no conflicts and all the read threads (2) stop after reading poison pill
  -1, which is added as the very last queue dummy node item:

  ```
  🐍 task_3  ×
  Read: 995
  Written: 995
  Read: 996
  Written: 996
  Read: 997
  Written: 997
  Written: 998
  Read: 998
  Written: 999
  Read: 999
  Read: -1
  Written: -1
  Read: -1
  ```

- If only producer is writing the items to the queue without reading, the execution will be
  paused as we reach queue elements limit and don't pop the elements