

File - driver

```
1 C:\Users\chris\AppData\Local\Microsoft\WindowsApps\python3.8.exe C:/Users/chris/github-iu/
  p434/assignments/distributed-kv/driver.py -e -v
2 Node 3 started on 127.0.0.1:34568! Using eventual consistency...
3 Node 1 started on 127.0.0.1:34566! Using eventual consistency...Node 3 Verbose Logging
  Enabled!
4
5 Node 1 Verbose Logging Enabled!
6 Node 2 started on 127.0.0.1:34567! Using eventual consistency...
7 Node 2 Verbose Logging Enabled!
8 Client 0 started with eventual consistency
9 Client 1 started with eventual consistency
10 Node 1 -> Key turpis, Value libero
11 Client 0 Node 1 - PUT turpis, libero
12 Client 0 Delay: 0.6308628733364685 seconds
13 Node 1 -> Key lobortis, Value vulputate
14 Client 1 Node 1 - PUT lobortis, vulputate
15 Client 1 Delay: 0.5844936767902602 seconds
16 Node 2 Updated! -> Key turpis, Value libero
17 Node 1 GET -> Key lobortis
18 Client 1 Node 1 - GET lobortis -> Result vulputate --> Expected vulputate
19 Node 2 GET -> Key lobortis
20 Client 1 Node 2 - GET lobortis -> Result NULL --> Expected vulputate
21 Node 3 GET -> Key lobortis
22 Client 1 Node 3 - GET lobortis -> Result NULL --> Expected vulputate
23
24 Node 1 -> Key nulla, Value Maecenas
25 Client 1 Node 1 - PUT nulla, Maecenas
26 Client 1 Delay: 0.5003755165521897 seconds
27 Node 1 GET -> Key turpis
28 Client 0 Node 1 - GET turpis -> Result libero --> Expected libero
29 Node 2 GET -> Key turpis
30 Client 0 Node 2 - GET turpis -> Result libero --> Expected libero
31 Node 3 GET -> Key turpis
32 Client 0 Node 3 - GET turpis -> Result NULL --> Expected libero
33
34 Node 1 -> Key magna, Value magna
35 Client 0 Node 1 - PUT magna, magna
36 Client 0 Delay: 0.8471396247045397 seconds
37 Node 2 Updated! -> Key lobortis, Value vulputate
38 Node 1 GET -> Key nulla
39 Client 1 Node 1 - GET nulla -> Result Maecenas --> Expected Maecenas
40 Node 2 GET -> Key nulla
41 Client 1 Node 2 - GET nulla -> Result NULL --> Expected Maecenas
42 Node 3 GET -> Key nulla
43 Client 1 Node 3 - GET nulla -> Result NULL --> Expected Maecenas
44
45 Node 1 -> Key Nulla, Value ipsum
46 Client 1 Node 1 - PUT Nulla, ipsum
47 Client 1 Delay: 0.5675631334341681 seconds
48 Node 3 Updated! -> Key lobortis, Value vulputate
49 Node 3 Updated! -> Key turpis, Value libero
50 Node 1 GET -> Key magna
51 Client 0 Node 1 - GET magna -> Result magna --> Expected magna
52 Node 2 GET -> Key magna
53 Client 0 Node 2 - GET magna -> Result NULL --> Expected magna
54 Node 3 GET -> Key magna
55 Client 0 Node 3 - GET magna -> Result NULL --> Expected magna
56
57 Node 1 -> Key tempus, Value Mauris
58 Client 0 Node 1 - PUT tempus, Mauris
59 Client 0 Delay: 0.5924684389618426 seconds
60 Node 2 Updated! -> Key nulla, Value Maecenas
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61 Node 2 Updated! -> Key magna, Value magna
62 Node 1 GET -> Key Nulla
63 Client 1 Node 1 - GET Nulla -> Result ipsum --> Expected ipsum
64 Node 2 GET -> Key Nulla
65 Client 1 Node 2 - GET Nulla -> Result NULL --> Expected ipsum
66 Node 3 GET -> Key Nulla
67 Client 1 Node 3 - GET Nulla -> Result NULL --> Expected ipsum
68
69 Node 1 -> Key sed, Value nec
70 Client 1 Node 1 - PUT sed, nec
71 Client 1 Delay: 0.6695173650264343 seconds
72 Node 2 Updated! -> Key Nulla, Value ipsum
73 Node 2 Updated! -> Key sed, Value nec
74 Node 2 Updated! -> Key tempus, Value Mauris
75 Node 3 Updated! -> Key magna, Value magna
76 Node 1 GET -> Key tempus
77 Client 0 Node 1 - GET tempus -> Result Mauris --> Expected Mauris
78 Node 2 GET -> Key tempus
79 Client 0 Node 2 - GET tempus -> Result Mauris --> Expected Mauris
80 Node 3 GET -> Key tempus
81 Client 0 Node 3 - GET tempus -> Result NULL --> Expected Mauris
82
83 Node 1 -> Key nec, Value accumsan
84 Client 0 Node 1 - PUT nec, accumsan
85 Client 0 Delay: 1.1485937390815806 seconds
86 Node 3 Updated! -> Key nulla, Value Maecenas
87 Node 3 Updated! -> Key sed, Value nec
88 Node 1 GET -> Key sed
89 Client 1 Node 1 - GET sed -> Result nec --> Expected nec
90 Node 2 GET -> Key sed
91 Client 1 Node 2 - GET sed -> Result nec --> Expected nec
92 Node 3 GET -> Key sed
93 Client 1 Node 3 - GET sed -> Result nec --> Expected nec
94
95 Node 1 -> Key tempus, Value elementum
96 Client 1 Node 1 - PUT tempus, elementum
97 Client 1 Delay: 0.5206400044600825 seconds
98 Node 2 Updated! -> Key nec, Value accumsan
99 Node 3 Updated! -> Key Nulla, Value ipsum
100 Node 3 Updated! -> Key tempus, Value Mauris
101 Node 1 GET -> Key tempus
102 Client 1 Node 1 - GET tempus -> Result elementum --> Expected elementum
103 Node 2 GET -> Key tempus
104 Client 1 Node 2 - GET tempus -> Result Mauris --> Expected elementum
105 Node 3 GET -> Key tempus
106 Client 1 Node 3 - GET tempus -> Result Mauris --> Expected elementum
107
108 Node 1 -> Key ornare, Value tempor
109 Client 1 Node 1 - PUT ornare, tempor
110 Client 1 Delay: 0.9600976755964545 seconds
111 Node 3 Updated! -> Key nec, Value accumsan
112 Node 2 Updated! -> Key tempus, Value elementum
113 Node 1 GET -> Key nec
114 Client 0 Node 1 - GET nec -> Result accumsan --> Expected accumsan
115 Node 2 GET -> Key nec
116 Client 0 Node 2 - GET nec -> Result accumsan --> Expected accumsan
117 Node 3 GET -> Key nec
118 Client 0 Node 3 - GET nec -> Result accumsan --> Expected accumsan
119
120 Node 1 -> Key sapien, Value Suspendisse
121 Client 0 Node 1 - PUT sapien, Suspendisse
122 Client 0 Delay: 0.8833305090698762 seconds
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123 Node 3 Updated! -> Key tempus, Value elementum
124 Node 2 Updated! -> Key ornare, Value tempor
125 Node 1 GET -> Key ornare
126 Client 1 Node 1 - GET ornare -> Result tempor --> Expected tempor
127 Node 2 GET -> Key ornare
128 Client 1 Node 2 - GET ornare -> Result tempor --> Expected tempor
129 Node 3 GET -> Key ornare
130 Client 1 Node 3 - GET ornare -> Result NULL --> Expected tempor
131
132 Node 1 -> Key facilisis, Value Donec
133 Client 1 Node 1 - PUT facilisis, Donec
134 Client 1 Delay: 1.1069259355290213 seconds
135 Node 2 Updated! -> Key sapien, Value Suspendisse
136 Node 3 Updated! -> Key ornare, Value tempor
137 Node 1 GET -> Key sapien
138 Client 0 Node 1 - GET sapien -> Result Suspendisse --> Expected Suspendisse
139 Node 2 GET -> Key sapien
140 Client 0 Node 2 - GET sapien -> Result Suspendisse --> Expected Suspendisse
141 Node 3 GET -> Key sapien
142 Client 0 Node 3 - GET sapien -> Result NULL --> Expected Suspendisse
143
144 Node 1 -> Key at, Value dolor
145 Client 0 Node 1 - PUT at, dolor
146 Client 0 Delay: 1.053340393852796 seconds
147 Node 2 Updated! -> Key at, Value dolor
148 Node 3 Updated! -> Key sapien, Value Suspendisse
149 Node 2 Updated! -> Key facilisis, Value Donec
150 Node 3 Updated! -> Key at, Value dolor
151 Node 1 GET -> Key facilisis
152 Client 1 Node 1 - GET facilisis -> Result Donec --> Expected Donec
153 Node 2 GET -> Key facilisis
154 Client 1 Node 2 - GET facilisis -> Result Donec --> Expected Donec
155 Node 3 GET -> Key facilisis
156 Client 1 Node 3 - GET facilisis -> Result NULL --> Expected Donec
157
158 Node 1 -> Key elit, Value magna
159 Client 1 Node 1 - PUT elit, magna
160 Client 1 Delay: 1.122962989940265 seconds
161 Node 3 Updated! -> Key facilisis, Value Donec
162 Node 1 GET -> Key at
163 Client 0 Node 1 - GET at -> Result dolor --> Expected dolor
164 Node 2 GET -> Key at
165 Client 0 Node 2 - GET at -> Result dolor --> Expected dolor
166 Node 3 GET -> Key at
167 Client 0 Node 3 - GET at -> Result dolor --> Expected dolor
168
169 Node 1 -> Key interdum, Value pellentesque
170 Client 0 Node 1 - PUT interdum, pellentesque
171 Client 0 Delay: 1.1632739853426082 seconds
172 Node 2 Updated! -> Key interdum, Value pellentesque
173 Node 2 Updated! -> Key elit, Value magna
174 Node 3 Updated! -> Key interdum, Value pellentesque
175 Node 1 GET -> Key elit
176 Client 1 Node 1 - GET elit -> Result magna --> Expected magna
177 Node 2 GET -> Key elit
178 Client 1 Node 2 - GET elit -> Result magna --> Expected magna
179 Node 3 GET -> Key elit
180 Client 1 Node 3 - GET elit -> Result NULL --> Expected magna
181
182 Node 1 -> Key Suspendisse, Value eu
183 Client 1 Node 1 - PUT Suspendisse, eu
184 Client 1 Delay: 0.6178933614411664 seconds
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```
185 Node 1 GET -> Key interdum
186 Client 0 Node 1 - GET interdum -> Result pellentesque --> Expected pellentesque
187 Node 2 GET -> Key interdum
188 Client 0 Node 2 - GET interdum -> Result pellentesque --> Expected pellentesque
189 Node 3 GET -> Key interdum
190 Client 0 Node 3 - GET interdum -> Result pellentesque --> Expected pellentesque
191
192 Node 1 -> Key fermentum, Value Duis
193 Client 0 Node 1 - PUT fermentum, Duis
194 Client 0 Delay: 1.0447484602833106 seconds
195 Node 2 Updated! -> Key Suspendisse, Value eu
196 Node 3 Updated! -> Key elit, Value magna
197 Node 1 GET -> Key Suspendisse
198 Client 1 Node 1 - GET Suspendisse -> Result eu --> Expected eu
199 Node 2 GET -> Key Suspendisse
200 Client 1 Node 2 - GET Suspendisse -> Result eu --> Expected eu
201 Node 3 GET -> Key Suspendisse
202 Client 1 Node 3 - GET Suspendisse -> Result NULL --> Expected eu
203
204 Node 1 -> Key purus, Value porta
205 Client 1 Node 1 - PUT purus, porta
206 Client 1 Delay: 0.9800430988786255 seconds
207 Node 2 Updated! -> Key fermentum, Value Duis
208 Node 3 Updated! -> Key fermentum, Value Duis
209 Node 2 Updated! -> Key purus, Value porta
210 Node 3 Updated! -> Key Suspendisse, Value eu
211 Node 1 GET -> Key fermentum
212 Client 0 Node 1 - GET fermentum -> Result Duis --> Expected Duis
213 Node 2 GET -> Key fermentum
214 Client 0 Node 2 - GET fermentum -> Result Duis --> Expected Duis
215 Node 3 GET -> Key fermentum
216 Client 0 Node 3 - GET fermentum -> Result Duis --> Expected Duis
217
218 Node 1 -> Key nulla, Value Nullam
219 Client 0 Node 1 - PUT nulla, Nullam
220 Client 0 Delay: 0.6779836098383567 seconds
221 Node 3 Updated! -> Key purus, Value porta
222 Node 1 GET -> Key purus
223 Client 1 Node 1 - GET purus -> Result porta --> Expected porta
224 Node 2 GET -> Key purus
225 Client 1 Node 2 - GET purus -> Result porta --> Expected porta
226 Node 3 GET -> Key purus
227 Client 1 Node 3 - GET purus -> Result porta --> Expected porta
228
229 Node 1 -> Key cursus, Value vitae
230 Client 1 Node 1 - PUT cursus, vitae
231 Client 1 Delay: 1.1350717923319955 seconds
232 Node 1 GET -> Key nulla
233 Client 0 Node 1 - GET nulla -> Result Nullam --> Expected Nullam
234 Node 2 GET -> Key nulla
235 Client 0 Node 2 - GET nulla -> Result Maecenas --> Expected Nullam
236 Node 3 GET -> Key nulla
237 Client 0 Node 3 - GET nulla -> Result Maecenas --> Expected Nullam
238
239 Node 1 -> Key mauris, Value Vestibulum
240 Client 0 Node 1 - PUT mauris, Vestibulum
241 Client 0 Delay: 0.64525871610266 seconds
242 Node 2 Updated! -> Key nulla, Value Nullam
243 Node 2 Updated! -> Key mauris, Value Vestibulum
244 Node 2 Updated! -> Key cursus, Value vitae
245 Node 1 GET -> Key mauris
246 Client 0 Node 1 - GET mauris -> Result Vestibulum --> Expected Vestibulum
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247 Node 2 GET -> Key mauris
248 Client 0 Node 2 - GET mauris -> Result Vestibulum --> Expected Vestibulum
249 Node 3 GET -> Key mauris
250 Client 0 Node 3 - GET mauris -> Result NULL --> Expected Vestibulum
251
252 Node 1 -> Key elementum, Value orci
253 Client 0 Node 1 - PUT elementum, orci
254 Client 0 Delay: 1.0905526486972055 seconds
255 Node 3 Updated! -> Key nulla, Value Nullam
256 Node 1 GET -> Key cursus
257 Client 1 Node 1 - GET cursus -> Result vitae --> Expected vitae
258 Node 2 GET -> Key cursus
259 Client 1 Node 2 - GET cursus -> Result vitae --> Expected vitae
260 Node 3 GET -> Key cursus
261 Client 1 Node 3 - GET cursus -> Result NULL --> Expected vitae
262
263 Node 1 -> Key Nunc, Value Donec
264 Client 1 Node 1 - PUT Nunc, Donec
265 Client 1 Delay: 1.113953295997538 seconds
266 Node 3 Updated! -> Key mauris, Value Vestibulum
267 Node 3 Updated! -> Key cursus, Value vitae
268 Node 2 Updated! -> Key elementum, Value orci
269 Node 2 Updated! -> Key Nunc, Value Donec
270 Node 3 Updated! -> Key Nunc, Value Donec
271 Node 1 GET -> Key elementum
272 Client 0 Node 1 - GET elementum -> Result orci --> Expected orci
273 Node 2 GET -> Key elementum
274 Client 0 Node 2 - GET elementum -> Result orci --> Expected orci
275 Node 3 GET -> Key elementum
276 Client 0 Node 3 - GET elementum -> Result NULL --> Expected orci
277
278 Node 1 -> Key et, Value at
279 Client 0 Node 1 - PUT et, at
280 Client 0 Delay: 0.5685254551246847 seconds
281 Node 1 GET -> Key Nunc
282 Client 1 Node 1 - GET Nunc -> Result Donec --> Expected Donec
283 Node 2 GET -> Key Nunc
284 Client 1 Node 2 - GET Nunc -> Result Donec --> Expected Donec
285 Node 3 GET -> Key Nunc
286 Client 1 Node 3 - GET Nunc -> Result Donec --> Expected Donec
287
288 Node 1 -> Key mattis, Value ut
289 Client 1 Node 1 - PUT mattis, ut
290 Client 1 Delay: 1.1742731769180632 seconds
291 Node 3 Updated! -> Key elementum, Value orci
292 Node 2 Updated! -> Key et, Value at
293 Node 1 GET -> Key et
294 Client 0 Node 1 - GET et -> Result at --> Expected at
295 Node 2 GET -> Key et
296 Client 0 Node 2 - GET et -> Result at --> Expected at
297 Node 3 GET -> Key et
298 Client 0 Node 3 - GET et -> Result NULL --> Expected at
299
300 Node 1 -> Key gravida, Value Etiam
301 Client 0 Node 1 - PUT gravida, Etiam
302 Client 0 Delay: 0.8858506181149062 seconds
303 Node 2 Updated! -> Key mattis, Value ut
304 Node 2 Updated! -> Key gravida, Value Etiam
305 Node 3 Updated! -> Key mattis, Value ut
306 Node 3 Updated! -> Key et, Value at
307 Node 1 GET -> Key mattis
308 Client 1 Node 1 - GET mattis -> Result ut --> Expected ut
```

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```
309 Node 2 GET -> Key mattis
310 Client 1 Node 2 - GET mattis -> Result ut --> Expected ut
311 Node 3 GET -> Key mattis
312 Client 1 Node 3 - GET mattis -> Result ut --> Expected ut
313
314 Node 1 -> Key ligula, Value eget
315 Client 1 Node 1 - PUT ligula, eget
316 Client 1 Delay: 1.0331080713295218 seconds
317 Node 1 GET -> Key gravida
318 Client 0 Node 1 - GET gravida -> Result Etiam --> Expected Etiam
319 Node 2 GET -> Key gravida
320 Client 0 Node 2 - GET gravida -> Result Etiam --> Expected Etiam
321 Node 3 GET -> Key gravida
322 Client 0 Node 3 - GET gravida -> Result NULL --> Expected Etiam
323
324 Node 1 -> Key lacus, Value nonummy
325 Client 0 Node 1 - PUT lacus, nonummy
326 Client 0 Delay: 0.7190661641619168 seconds
327 Node 3 Updated! -> Key gravida, Value Etiam
328 Node 1 GET -> Key lacus
329 Client 0 Node 1 - GET lacus -> Result nonummy --> Expected nonummy
330 Node 2 GET -> Key lacus
331 Client 0 Node 2 - GET lacus -> Result NULL --> Expected nonummy
332 Node 3 GET -> Key lacus
333 Client 0 Node 3 - GET lacus -> Result NULL --> Expected nonummy
334
335 Node 1 -> Key malesuada, Value Aliquam
336 Client 0 Node 1 - PUT malesuada, Aliquam
337 Client 0 Delay: 1.0806979050838024 seconds
338 Node 2 Updated! -> Key ligula, Value eget
339 Node 1 GET -> Key ligula
340 Client 1 Node 1 - GET ligula -> Result eget --> Expected eget
341 Node 2 GET -> Key ligula
342 Client 1 Node 2 - GET ligula -> Result eget --> Expected eget
343 Node 3 GET -> Key ligula
344 Client 1 Node 3 - GET ligula -> Result NULL --> Expected eget
345
346 Node 1 -> Key erat, Value mi
347 Client 1 Node 1 - PUT erat, mi
348 Client 1 Delay: 0.7198640522806719 seconds
349 Node 2 Updated! -> Key lacus, Value nonummy
350 Node 3 Updated! -> Key ligula, Value eget
351 Node 2 Updated! -> Key malesuada, Value Aliquam
352 Node 3 Updated! -> Key lacus, Value nonummy
353 Node 1 GET -> Key erat
354 Client 1 Node 1 - GET erat -> Result mi --> Expected mi
355 Node 2 GET -> Key erat
356 Client 1 Node 2 - GET erat -> Result NULL --> Expected mi
357 Node 3 GET -> Key erat
358 Client 1 Node 3 - GET erat -> Result NULL --> Expected mi
359
360 Node 1 -> Key blandit, Value risus
361 Client 1 Node 1 - PUT blandit, risus
362 Client 1 Delay: 0.7811771269685407 seconds
363 Node 3 Updated! -> Key malesuada, Value Aliquam
364 Node 1 GET -> Key malesuada
365 Client 0 Node 1 - GET malesuada -> Result Aliquam --> Expected Aliquam
366 Node 2 GET -> Key malesuada
367 Client 0 Node 2 - GET malesuada -> Result Aliquam --> Expected Aliquam
368 Node 3 GET -> Key malesuada
369 Client 0 Node 3 - GET malesuada -> Result Aliquam --> Expected Aliquam
370
```

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```
371 Node 1 -> Key In, Value lorem
372 Client 0 Node 1 - PUT In, lorem
373 Client 0 Delay: 1.1963689968043405 seconds
374 Node 2 Updated! -> Key erat, Value mi
375 Node 2 Updated! -> Key blandit, Value risus
376 Node 1 GET -> Key blandit
377 Client 1 Node 1 - GET blandit -> Result risus --> Expected risus
378 Node 2 GET -> Key blandit
379 Client 1 Node 2 - GET blandit -> Result risus --> Expected risus
380 Node 3 GET -> Key blandit
381 Client 1 Node 3 - GET blandit -> Result NULL --> Expected risus
382
383 Node 1 -> Key varius, Value Morbi
384 Client 1 Node 1 - PUT varius, Morbi
385 Client 1 Delay: 0.7718137252972085 seconds
386 Node 2 Updated! -> Key In, Value lorem
387 Node 3 Updated! -> Key erat, Value mi
388 Node 3 Updated! -> Key In, Value lorem
389 Node 1 GET -> Key In
390 Client 0 Node 1 - GET In -> Result lorem --> Expected lorem
391 Node 2 GET -> Key In
392 Client 0 Node 2 - GET In -> Result lorem --> Expected lorem
393 Node 3 GET -> Key In
394 Client 0 Node 3 - GET In -> Result lorem --> Expected lorem
395
396 Node 1 -> Key Duis, Value euismod
397 Client 0 Node 1 - PUT Duis, euismod
398 Client 0 Delay: 0.8423263645434118 seconds
399 Node 1 GET -> Key varius
400 Client 1 Node 1 - GET varius -> Result Morbi --> Expected Morbi
401 Node 2 GET -> Key varius
402 Client 1 Node 2 - GET varius -> Result NULL --> Expected Morbi
403 Node 3 GET -> Key varius
404 Client 1 Node 3 - GET varius -> Result NULL --> Expected Morbi
405
406 Node 1 -> Key Proin, Value a
407 Client 1 Node 1 - PUT Proin, a
408 Client 1 Delay: 1.0622871576094355 seconds
409 Node 3 Updated! -> Key blandit, Value risus
410 Node 2 Updated! -> Key varius, Value Morbi
411 Node 2 Updated! -> Key Proin, Value a
412 Node 3 Updated! -> Key varius, Value Morbi
413 Node 1 GET -> Key Duis
414 Client 0 Node 1 - GET Duis -> Result euismod --> Expected euismod
415 Node 2 GET -> Key Duis
416 Client 0 Node 2 - GET Duis -> Result NULL --> Expected euismod
417 Node 3 GET -> Key Duis
418 Client 0 Node 3 - GET Duis -> Result NULL --> Expected euismod
419
420 Node 1 -> Key Aenean, Value Fusce
421 Client 0 Node 1 - PUT Aenean, Fusce
422 Client 0 Delay: 0.5953718303958611 seconds
423 Node 2 Updated! -> Key Duis, Value euismod
424 Node 1 GET -> Key Proin
425 Client 1 Node 1 - GET Proin -> Result a --> Expected a
426 Node 2 GET -> Key Proin
427 Client 1 Node 2 - GET Proin -> Result a --> Expected a
428 Node 3 GET -> Key Proin
429 Client 1 Node 3 - GET Proin -> Result NULL --> Expected a
430
431 Node 1 -> Key orci, Value eros
432 Client 1 Node 1 - PUT orci, eros
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```
433 Client 1 Delay: 0.755400688110496 seconds
434 Node 3 Updated! -> Key Proin, Value a
435 Node 1 GET -> Key Aenean
436 Client 0 Node 1 - GET Aenean -> Result Fusce --> Expected Fusce
437 Node 2 GET -> Key Aenean
438 Client 0 Node 2 - GET Aenean -> Result NULL --> Expected Fusce
439 Node 3 GET -> Key Aenean
440 Client 0 Node 3 - GET Aenean -> Result NULL --> Expected Fusce
441
442 Node 1 -> Key ipsum, Value in
443 Client 0 Node 1 - PUT ipsum, in
444 Client 0 Delay: 0.6147792623812571 seconds
445 Node 3 Updated! -> Key Duis, Value euismod
446 Node 2 Updated! -> Key Aenean, Value Fusce
447 Node 2 Updated! -> Key orci, Value eros
448 Node 2 Updated! -> Key ipsum, Value in
449 Node 1 GET -> Key orci
450 Client 1 Node 1 - GET orci -> Result eros --> Expected eros
451 Node 2 GET -> Key orci
452 Client 1 Node 2 - GET orci -> Result eros --> Expected eros
453 Node 3 GET -> Key orci
454 Client 1 Node 3 - GET orci -> Result NULL --> Expected eros
455
456 Node 1 -> Key a, Value at
457 Client 1 Node 1 - PUT a, at
458 Client 1 Delay: 1.155749407124413 seconds
459 Node 3 Updated! -> Key orci, Value eros
460 Node 1 GET -> Key ipsum
461 Client 0 Node 1 - GET ipsum -> Result in --> Expected in
462 Node 2 GET -> Key ipsum
463 Client 0 Node 2 - GET ipsum -> Result in --> Expected in
464 Node 3 GET -> Key ipsum
465 Client 0 Node 3 - GET ipsum -> Result NULL --> Expected in
466
467 Node 1 -> Key Vestibulum, Value ipsum
468 Client 0 Node 1 - PUT Vestibulum, ipsum
469 Client 0 Delay: 0.7382331490483094 seconds
470 Node 3 Updated! -> Key ipsum, Value in
471 Node 2 Updated! -> Key a, Value at
472 Node 3 Updated! -> Key Aenean, Value Fusce
473 Node 1 GET -> Key Vestibulum
474 Client 0 Node 1 - GET Vestibulum -> Result ipsum --> Expected ipsum
475 Node 2 GET -> Key Vestibulum
476 Client 0 Node 2 - GET Vestibulum -> Result NULL --> Expected ipsum
477 Node 3 GET -> Key Vestibulum
478 Client 0 Node 3 - GET Vestibulum -> Result NULL --> Expected ipsum
479
480 Node 1 -> Key Fusce, Value Nunc
481 Client 0 Node 1 - PUT Fusce, Nunc
482 Client 0 Delay: 0.5296172597967145 seconds
483 Node 3 Updated! -> Key a, Value at
484 Node 2 Updated! -> Key Vestibulum, Value ipsum
485 Node 1 GET -> Key a
486 Client 1 Node 1 - GET a -> Result at --> Expected at
487 Node 2 GET -> Key a
488 Client 1 Node 2 - GET a -> Result at --> Expected at
489 Node 3 GET -> Key a
490 Client 1 Node 3 - GET a -> Result at --> Expected at
491
492 Node 1 -> Key magnis, Value aliquet
493 Client 1 Node 1 - PUT magnis, aliquet
494 Client 1 Delay: 0.7608988119885223 seconds
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```
495 Node 1 GET -> Key Fusce
496 Client 0 Node 1 - GET Fusce -> Result Nunc --> Expected Nunc
497 Node 2 GET -> Key Fusce
498 Client 0 Node 2 - GET Fusce -> Result NULL --> Expected Nunc
499 Node 3 GET -> Key Fusce
500 Client 0 Node 3 - GET Fusce -> Result NULL --> Expected Nunc
501
502 Node 1 -> Key Integer, Value at
503 Client 0 Node 1 - PUT Integer, at
504 Client 0 Delay: 0.7254748489821139 seconds
505 Node 2 Updated! -> Key magnis, Value aliquet
506 Node 2 Updated! -> Key Fusce, Value Nunc
507 Node 3 Updated! -> Key Vestibulum, Value ipsum
508 Node 1 GET -> Key magnis
509 Client 1 Node 1 - GET magnis -> Result aliquet --> Expected aliquet
510 Node 2 GET -> Key magnis
511 Client 1 Node 2 - GET magnis -> Result aliquet --> Expected aliquet
512 Node 3 GET -> Key magnis
513 Client 1 Node 3 - GET magnis -> Result NULL --> Expected aliquet
514
515 Node 1 -> Key Quisque, Value vitae
516 Client 1 Node 1 - PUT Quisque, vitae
517 Client 1 Delay: 0.792688015204374 seconds
518 Node 3 Updated! -> Key Fusce, Value Nunc
519 Node 1 GET -> Key Integer
520 Client 0 Node 1 - GET Integer -> Result at --> Expected at
521 Node 2 GET -> Key Integer
522 Client 0 Node 2 - GET Integer -> Result NULL --> Expected at
523 Node 3 GET -> Key Integer
524 Client 0 Node 3 - GET Integer -> Result NULL --> Expected at
525
526 Node 1 -> Key Aliquam, Value sem
527 Client 0 Node 1 - PUT Aliquam, sem
528 Client 0 Delay: 1.0768725527685747 seconds
529 Node 3 Updated! -> Key magnis, Value aliquet
530 Node 2 Updated! -> Key Integer, Value at
531 Node 2 Updated! -> Key Quisque, Value vitae
532 Node 1 GET -> Key Quisque
533 Client 1 Node 1 - GET Quisque -> Result vitae --> Expected vitae
534 Node 2 GET -> Key Quisque
535 Client 1 Node 2 - GET Quisque -> Result vitae --> Expected vitae
536 Node 3 GET -> Key Quisque
537 Client 1 Node 3 - GET Quisque -> Result NULL --> Expected vitae
538
539 Node 1 -> Key interdum, Value elementum
540 Client 1 Node 1 - PUT interdum, elementum
541 Client 1 Delay: 0.6394187683218606 seconds
542 Node 2 Updated! -> Key Aliquam, Value sem
543 Node 3 Updated! -> Key Quisque, Value vitae
544 Node 3 Updated! -> Key Integer, Value at
545 Node 1 GET -> Key Aliquam
546 Client 0 Node 1 - GET Aliquam -> Result sem --> Expected sem
547 Node 2 GET -> Key Aliquam
548 Client 0 Node 2 - GET Aliquam -> Result sem --> Expected sem
549 Node 3 GET -> Key Aliquam
550 Client 0 Node 3 - GET Aliquam -> Result NULL --> Expected sem
551
552 Node 1 -> Key vel, Value sit
553 Client 0 Node 1 - PUT vel, sit
554 Client 0 Delay: 0.7216450070098506 seconds
555 Node 1 GET -> Key interdum
556 Client 1 Node 1 - GET interdum -> Result elementum --> Expected elementum
```

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```
557 Node 2 GET -> Key interdum
558 Client 1 Node 2 - GET interdum -> Result pellentesque --> Expected elementum
559 Node 3 GET -> Key interdum
560 Client 1 Node 3 - GET interdum -> Result pellentesque --> Expected elementum
561
562 Node 1 -> Key magna, Value magna
563 Client 1 Node 1 - PUT magna, magna
564 Client 1 Delay: 1.1471716606266014 seconds
565 Node 3 Updated! -> Key Aliquam, Value sem
566 Node 2 Updated! -> Key interdum, Value elementum
567 Node 2 Updated! -> Key vel, Value sit
568 Node 1 GET -> Key vel
569 Client 0 Node 1 - GET vel -> Result sit --> Expected sit
570 Node 2 GET -> Key vel
571 Client 0 Node 2 - GET vel -> Result sit --> Expected sit
572 Node 3 GET -> Key vel
573 Client 0 Node 3 - GET vel -> Result NULL --> Expected sit
574
575 Node 1 -> Key lectus, Value semper
576 Client 0 Node 1 - PUT lectus, semper
577 Client 0 Delay: 0.7532086026767707 seconds
578 Node 2 Updated! -> Key magna, Value magna
579 Node 3 Updated! -> Key interdum, Value elementum
580 Node 2 Updated! -> Key lectus, Value semper
581 Node 3 Updated! -> Key magna, Value magna
582 Node 1 GET -> Key magna
583 Client 1 Node 1 - GET magna -> Result magna --> Expected magna
584 Node 2 GET -> Key magna
585 Client 1 Node 2 - GET magna -> Result magna --> Expected magna
586 Node 3 GET -> Key magna
587 Client 1 Node 3 - GET magna -> Result magna --> Expected magna
588
589 Node 1 -> Key lorem, Value vel
590 Client 1 Node 1 - PUT lorem, vel
591 Client 1 Delay: 0.7621555474302792 seconds
592 Node 1 GET -> Key lectus
593 Client 0 Node 1 - GET lectus -> Result semper --> Expected semper
594 Node 2 GET -> Key lectus
595 Client 0 Node 2 - GET lectus -> Result semper --> Expected semper
596 Node 3 GET -> Key lectus
597 Client 0 Node 3 - GET lectus -> Result NULL --> Expected semper
598
599 Node 1 -> Key dignissim, Value eget
600 Client 0 Node 1 - PUT dignissim, eget
601 Client 0 Delay: 0.8302944346862402 seconds
602 Node 3 Updated! -> Key vel, Value sit
603 Node 2 Updated! -> Key lorem, Value vel
604 Node 1 GET -> Key lorem
605 Client 1 Node 1 - GET lorem -> Result vel --> Expected vel
606 Node 2 GET -> Key lorem
607 Client 1 Node 2 - GET lorem -> Result vel --> Expected vel
608 Node 3 GET -> Key lorem
609 Client 1 Node 3 - GET lorem -> Result NULL --> Expected vel
610
611 Node 1 -> Key Morbi, Value turpis
612 Client 1 Node 1 - PUT Morbi, turpis
613 Client 1 Delay: 1.188586847014833 seconds
614 Node 2 Updated! -> Key dignissim, Value eget
615 Node 3 Updated! -> Key lectus, Value semper
616 Node 3 Updated! -> Key lorem, Value vel
617 Node 1 GET -> Key dignissim
618 Client 0 Node 1 - GET dignissim -> Result eget --> Expected eget
```

File - driver

```
619 Node 2 GET -> Key dignissim
620 Client 0 Node 2 - GET dignissim -> Result eget --> Expected eget
621 Node 3 GET -> Key dignissim
622 Client 0 Node 3 - GET dignissim -> Result NULL --> Expected eget
623
624 Node 1 -> Key Donec, Value ipsum
625 Client 0 Node 1 - PUT Donec, ipsum
626 Client 0 Delay: 1.0825938650493243 seconds
627 Node 2 Updated! -> Key Morbi, Value turpis
628 Node 2 Updated! -> Key Donec, Value ipsum
629 Node 3 Updated! -> Key dignissim, Value eget
630 Node 1 GET -> Key Morbi
631 Client 1 Node 1 - GET Morbi -> Result turpis --> Expected turpis
632 Node 2 GET -> Key Morbi
633 Client 1 Node 2 - GET Morbi -> Result turpis --> Expected turpis
634 Node 3 GET -> Key Morbi
635 Client 1 Node 3 - GET Morbi -> Result NULL --> Expected turpis
636
637 Node 1 -> Key luctus, Value sem
638 Client 1 Node 1 - PUT luctus, sem
639 Client 1 Delay: 0.6256073957326579 seconds
640 Node 3 Updated! -> Key Morbi, Value turpis
641 Node 1 GET -> Key Donec
642 Client 0 Node 1 - GET Donec -> Result ipsum --> Expected ipsum
643 Node 2 GET -> Key Donec
644 Client 0 Node 2 - GET Donec -> Result ipsum --> Expected ipsum
645 Node 3 GET -> Key Donec
646 Client 0 Node 3 - GET Donec -> Result NULL --> Expected ipsum
647
648 Node 1 -> Key nascetur, Value convallis
649 Client 0 Node 1 - PUT nascetur, convallis
650 Client 0 Delay: 1.1798796590998384 seconds
651 Node 3 Updated! -> Key Donec, Value ipsum
652 Node 2 Updated! -> Key nascetur, Value convallis
653 Node 1 GET -> Key luctus
654 Client 1 Node 1 - GET luctus -> Result sem --> Expected sem
655 Node 2 GET -> Key luctus
656 Client 1 Node 2 - GET luctus -> Result NULL --> Expected sem
657 Node 3 GET -> Key luctus
658 Client 1 Node 3 - GET luctus -> Result NULL --> Expected sem
659
660 Node 1 -> Key sit, Value augue
661 Client 1 Node 1 - PUT sit, augue
662 Client 1 Delay: 0.6570576976709037 seconds
663 Node 2 Updated! -> Key luctus, Value sem
664 Node 2 Updated! -> Key sit, Value augue
665 Node 3 Updated! -> Key sit, Value augue
666 Node 3 Updated! -> Key luctus, Value sem
667 Node 1 GET -> Key sit
668 Client 1 Node 1 - GET sit -> Result augue --> Expected augue
669 Node 2 GET -> Key sit
670 Client 1 Node 2 - GET sit -> Result augue --> Expected augue
671 Node 3 GET -> Key sit
672 Client 1 Node 3 - GET sit -> Result augue --> Expected augue
673
674 Node 1 -> Key et, Value dolor
675 Client 1 Node 1 - PUT et, dolor
676 Client 1 Delay: 0.5728031507925726 seconds
677 Node 1 GET -> Key nascetur
678 Client 0 Node 1 - GET nascetur -> Result convallis --> Expected convallis
679 Node 2 GET -> Key nascetur
680 Client 0 Node 2 - GET nascetur -> Result convallis --> Expected convallis
```

File - driver

```
681 Node 3 GET -> Key nascetur
682 Client 0 Node 3 - GET nascetur -> Result NULL --> Expected convallis
683
684 Node 1 -> Key mus, Value tristique
685 Client 0 Node 1 - PUT mus, tristique
686 Client 0 Delay: 0.5069959079676765 seconds
687 Node 3 Updated! -> Key nascetur, Value convallis
688 Node 2 Updated! -> Key et, Value dolor
689 Node 2 Updated! -> Key mus, Value tristique
690 Node 1 GET -> Key mus
691 Client 0 Node 1 - GET mus -> Result tristique --> Expected tristique
692 Node 2 GET -> Key mus
693 Client 0 Node 2 - GET mus -> Result tristique --> Expected tristique
694 Node 3 GET -> Key mus
695 Client 0 Node 3 - GET mus -> Result NULL --> Expected tristique
696
697 Node 1 -> Key sed, Value vestibulum
698 Client 0 Node 1 - PUT sed, vestibulum
699 Client 0 Delay: 0.9525639967275668 seconds
700 Node 1 GET -> Key et
701 Client 1 Node 1 - GET et -> Result dolor --> Expected dolor
702 Node 2 GET -> Key et
703 Client 1 Node 2 - GET et -> Result dolor --> Expected dolor
704 Node 3 GET -> Key et
705 Client 1 Node 3 - GET et -> Result at --> Expected dolor
706
707 Node 1 -> Key Donec, Value fringilla
708 Client 1 Node 1 - PUT Donec, fringilla
709 Client 1 Delay: 0.6305277980775601 seconds
710 Node 3 Updated! -> Key mus, Value tristique
711 Node 3 Updated! -> Key et, Value dolor
712 Node 1 GET -> Key Donec
713 Client 1 Node 1 - GET Donec -> Result fringilla --> Expected fringilla
714 Node 2 GET -> Key Donec
715 Client 1 Node 2 - GET Donec -> Result ipsum --> Expected fringilla
716 Node 3 GET -> Key Donec
717 Client 1 Node 3 - GET Donec -> Result ipsum --> Expected fringilla
718
719 Node 1 -> Key consectetur, Value nisi
720 Client 1 Node 1 - PUT consectetur, nisi
721 Client 1 Delay: 0.8380227214690938 seconds
722 Node 2 Updated! -> Key Donec, Value fringilla
723 Node 2 Updated! -> Key sed, Value vestibulum
724 Node 2 Updated! -> Key consectetur, Value nisi
725 Node 1 GET -> Key sed
726 Client 0 Node 1 - GET sed -> Result vestibulum --> Expected vestibulum
727 Node 2 GET -> Key sed
728 Client 0 Node 2 - GET sed -> Result vestibulum --> Expected vestibulum
729 Node 3 GET -> Key sed
730 Client 0 Node 3 - GET sed -> Result nec --> Expected vestibulum
731
732 Node 1 -> Key massa, Value mattis
733 Client 0 Node 1 - PUT massa, mattis
734 Client 0 Delay: 0.5321660583700984 seconds
735 Node 3 Updated! -> Key Donec, Value fringilla
736 Node 2 Updated! -> Key massa, Value mattis
737 Node 1 GET -> Key massa
738 Client 0 Node 1 - GET massa -> Result mattis --> Expected mattis
739 Node 2 GET -> Key massa
740 Client 0 Node 2 - GET massa -> Result mattis --> Expected mattis
741 Node 3 GET -> Key massa
742 Client 0 Node 3 - GET massa -> Result NULL --> Expected mattis
```

File - driver

743  
744 Node 1 -> Key dictum, Value eu  
745 Client 0 Node 1 - PUT dictum, eu  
746 Client 0 Delay: 0.957582106255052 seconds  
747 Node 1 GET -> Key consectetur  
748 Client 1 Node 1 - GET consectetur -> Result nisi --> Expected nisi  
749 Node 2 GET -> Key consectetur  
750 Client 1 Node 2 - GET consectetur -> Result nisi --> Expected nisi  
751 Node 3 GET -> Key consectetur  
752 Client 1 Node 3 - GET consectetur -> Result NULL --> Expected nisi  
753  
754 Node 1 -> Key semper, Value Donec  
755 Client 1 Node 1 - PUT semper, Donec  
756 Client 1 Delay: 1.0172770108098983 seconds  
757 Node 3 Updated! -> Key sed, Value vestibulum  
758 Node 3 Updated! -> Key consectetur, Value nisi  
759 Node 2 Updated! -> Key dictum, Value eu  
760 Node 3 Updated! -> Key massa, Value mattis  
761 Node 3 Updated! -> Key dictum, Value eu  
762 Node 2 Updated! -> Key semper, Value Donec  
763 Node 1 GET -> Key dictum  
764 Client 0 Node 1 - GET dictum -> Result eu --> Expected eu  
765 Node 2 GET -> Key dictum  
766 Client 0 Node 2 - GET dictum -> Result eu --> Expected eu  
767 Node 3 GET -> Key dictum  
768 Client 0 Node 3 - GET dictum -> Result eu --> Expected eu  
769  
770 Node 1 -> Key est, Value at  
771 Client 0 Node 1 - PUT est, at  
772 Client 0 Delay: 1.0329878142484563 seconds  
773 Node 1 GET -> Key semper  
774 Client 1 Node 1 - GET semper -> Result Donec --> Expected Donec  
775 Node 2 GET -> Key semper  
776 Client 1 Node 2 - GET semper -> Result Donec --> Expected Donec  
777 Node 3 GET -> Key semper  
778 Client 1 Node 3 - GET semper -> Result NULL --> Expected Donec  
779  
780 Node 1 -> Key vel, Value non  
781 Client 1 Node 1 - PUT vel, non  
782 Client 1 Delay: 0.665133558947411 seconds  
783 Node 3 Updated! -> Key semper, Value Donec  
784 Node 2 Updated! -> Key vel, Value non  
785 Node 2 Updated! -> Key est, Value at  
786 Node 1 GET -> Key vel  
787 Client 1 Node 1 - GET vel -> Result non --> Expected non  
788 Node 2 GET -> Key vel  
789 Client 1 Node 2 - GET vel -> Result non --> Expected non  
790 Node 3 GET -> Key vel  
791 Client 1 Node 3 - GET vel -> Result sit --> Expected non  
792  
793 Node 1 -> Key nec, Value ac  
794 Client 1 Node 1 - PUT nec, ac  
795 Client 1 Delay: 0.5654786538297817 seconds  
796 Node 3 Updated! -> Key vel, Value non  
797 Node 1 GET -> Key est  
798 Client 0 Node 1 - GET est -> Result at --> Expected at  
799 Node 2 GET -> Key est  
800 Client 0 Node 2 - GET est -> Result at --> Expected at  
801 Node 3 GET -> Key est  
802 Client 0 Node 3 - GET est -> Result NULL --> Expected at  
803  
804 Node 1 -> Key ac, Value id

File - driver

```
805 Client 0 Node 1 - PUT ac, id
806 Client 0 Delay: 1.145312986662895 seconds
807 Node 3 Updated! -> Key est, Value at
808 Node 1 GET -> Key nec
809 Client 1 Node 1 - GET nec -> Result ac --> Expected ac
810 Node 2 GET -> Key nec
811 Client 1 Node 2 - GET nec -> Result accumsan --> Expected ac
812 Node 3 GET -> Key nec
813 Client 1 Node 3 - GET nec -> Result accumsan --> Expected ac
814
815 Node 1 -> Key Pellentesque, Value nec
816 Client 1 Node 1 - PUT Pellentesque, nec
817 Client 1 Delay: 1.159021640278762 seconds
818 Node 2 Updated! -> Key ac, Value id
819 Node 2 Updated! -> Key nec, Value ac
820 Node 2 Updated! -> Key Pellentesque, Value nec
821 Node 1 GET -> Key ac
822 Client 0 Node 1 - GET ac -> Result id --> Expected id
823 Node 2 GET -> Key ac
824 Client 0 Node 2 - GET ac -> Result id --> Expected id
825 Node 3 GET -> Key ac
826 Client 0 Node 3 - GET ac -> Result NULL --> Expected id
827
828 Node 1 -> Key Maecenas, Value Suspendisse
829 Client 0 Node 1 - PUT Maecenas, Suspendisse
830 Client 0 Delay: 1.0836470070772672 seconds
831 Node 3 Updated! -> Key nec, Value ac
832 Node 3 Updated! -> Key Pellentesque, Value nec
833 Node 3 Updated! -> Key ac, Value id
834 Node 1 GET -> Key Pellentesque
835 Client 1 Node 1 - GET Pellentesque -> Result nec --> Expected nec
836 Node 2 GET -> Key Pellentesque
837 Client 1 Node 2 - GET Pellentesque -> Result nec --> Expected nec
838 Node 3 GET -> Key Pellentesque
839 Client 1 Node 3 - GET Pellentesque -> Result nec --> Expected nec
840
841 Node 1 -> Key scelerisque, Value augue
842 Client 1 Node 1 - PUT scelerisque, augue
843 Client 1 Delay: 1.0339663793987275 seconds
844 Node 2 Updated! -> Key Maecenas, Value Suspendisse
845 Node 2 Updated! -> Key scelerisque, Value augue
846 Node 1 GET -> Key Maecenas
847 Client 0 Node 1 - GET Maecenas -> Result Suspendisse --> Expected Suspendisse
848 Node 2 GET -> Key Maecenas
849 Client 0 Node 2 - GET Maecenas -> Result Suspendisse --> Expected Suspendisse
850 Node 3 GET -> Key Maecenas
851 Client 0 Node 3 - GET Maecenas -> Result NULL --> Expected Suspendisse
852
853 Node 1 -> Key vitae, Value mauris
854 Client 0 Node 1 - PUT vitae, mauris
855 Client 0 Delay: 0.905249703805415 seconds
856 Node 3 Updated! -> Key Maecenas, Value Suspendisse
857 Node 1 GET -> Key scelerisque
858 Client 1 Node 1 - GET scelerisque -> Result augue --> Expected augue
859 Node 2 GET -> Key scelerisque
860 Client 1 Node 2 - GET scelerisque -> Result augue --> Expected augue
861 Node 3 GET -> Key scelerisque
862 Client 1 Node 3 - GET scelerisque -> Result NULL --> Expected augue
863
864 Node 1 -> Key fringilla, Value Quisque
865 Client 1 Node 1 - PUT fringilla, Quisque
866 Client 1 Delay: 0.610739900096888 seconds
```

File - driver

```
867 Node 3 Updated! -> Key scelerisque, Value augue
868 Node 2 Updated! -> Key vitae, Value mauris
869 Node 1 GET -> Key fringilla
870 Client 1 Node 1 - GET fringilla -> Result Quisque --> Expected Quisque
871 Node 2 GET -> Key fringilla
872 Client 1 Node 2 - GET fringilla -> Result NULL --> Expected Quisque
873 Node 3 GET -> Key fringilla
874 Client 1 Node 3 - GET fringilla -> Result NULL --> Expected Quisque
875
876 Node 1 -> Key metus, Value Morbi
877 Client 1 Node 1 - PUT metus, Morbi
878 Client 1 Delay: 0.7477260264047907 seconds
879 Node 1 GET -> Key vitae
880 Client 0 Node 1 - GET vitae -> Result mauris --> Expected mauris
881 Node 2 GET -> Key vitae
882 Client 0 Node 2 - GET vitae -> Result mauris --> Expected mauris
883 Node 3 GET -> Key vitae
884 Client 0 Node 3 - GET vitae -> Result NULL --> Expected mauris
885
886 Node 1 -> Key leo, Value in
887 Client 0 Node 1 - PUT leo, in
888 Client 0 Delay: 0.6331596972429133 seconds
889 Node 2 Updated! -> Key fringilla, Value Quisque
890 Node 3 Updated! -> Key vitae, Value mauris
891 Node 3 Updated! -> Key fringilla, Value Quisque
892 Node 2 Updated! -> Key leo, Value in
893 Node 2 Updated! -> Key metus, Value Morbi
894 Node 1 GET -> Key leo
895 Client 0 Node 1 - GET leo -> Result in --> Expected in
896 Node 2 GET -> Key leo
897 Client 0 Node 2 - GET leo -> Result in --> Expected in
898 Node 3 GET -> Key leo
899 Client 0 Node 3 - GET leo -> Result NULL --> Expected in
900
901 Node 1 -> Key iaculis, Value pharetra
902 Client 0 Node 1 - PUT iaculis, pharetra
903 Client 0 Delay: 0.5537896801893495 seconds
904 Node 1 GET -> Key metus
905 Client 1 Node 1 - GET metus -> Result Morbi --> Expected Morbi
906 Node 2 GET -> Key metus
907 Client 1 Node 2 - GET metus -> Result Morbi --> Expected Morbi
908 Node 3 GET -> Key metus
909 Client 1 Node 3 - GET metus -> Result NULL --> Expected Morbi
910
911 Node 1 -> Key ut, Value nonummy
912 Client 1 Node 1 - PUT ut, nonummy
913 Client 1 Delay: 0.6695089666276001 seconds
914 Node 3 Updated! -> Key metus, Value Morbi
915 Node 1 GET -> Key iaculis
916 Client 0 Node 1 - GET iaculis -> Result pharetra --> Expected pharetra
917 Node 2 GET -> Key iaculis
918 Client 0 Node 2 - GET iaculis -> Result NULL --> Expected pharetra
919 Node 3 GET -> Key iaculis
920 Client 0 Node 3 - GET iaculis -> Result NULL --> Expected pharetra
921
922 Node 1 -> Key ultrices, Value Suspendisse
923 Client 0 Node 1 - PUT ultrices, Suspendisse
924 Client 0 Delay: 1.1832902226086202 seconds
925 Node 1 GET -> Key ut
926 Client 1 Node 1 - GET ut -> Result nonummy --> Expected nonummy
927 Node 2 GET -> Key ut
928 Client 1 Node 2 - GET ut -> Result NULL --> Expected nonummy
```

File - driver

```
929 Node 3 GET -> Key ut
930 Client 1 Node 3 - GET ut -> Result NULL --> Expected nonummy
931
932 Node 1 -> Key augue, Value magna
933 Client 1 Node 1 - PUT augue, magna
934 Client 1 Delay: 1.0769881337987481 seconds
935 Node 3 Updated! -> Key leo, Value in
936 Node 2 Updated! -> Key ut, Value nonummy
937 Node 2 Updated! -> Key iaculis, Value pharetra
938 Node 2 Updated! -> Key ultrices, Value Suspendisse
939 Node 3 Updated! -> Key iaculis, Value pharetra
940 Node 2 Updated! -> Key augue, Value magna
941 Node 3 Updated! -> Key ut, Value nonummy
942 Node 1 GET -> Key ultrices
943 Client 0 Node 1 - GET ultrices -> Result Suspendisse --> Expected Suspendisse
944 Node 2 GET -> Key ultrices
945 Client 0 Node 2 - GET ultrices -> Result Suspendisse --> Expected Suspendisse
946 Node 3 GET -> Key ultrices
947 Client 0 Node 3 - GET ultrices -> Result NULL --> Expected Suspendisse
948
949 Node 1 -> Key tellus, Value est
950 Client 0 Node 1 - PUT tellus, est
951 Client 0 Delay: 0.9791816922819052 seconds
952 Node 1 GET -> Key augue
953 Client 1 Node 1 - GET augue -> Result magna --> Expected magna
954 Node 2 GET -> Key augue
955 Client 1 Node 2 - GET augue -> Result magna --> Expected magna
956 Node 3 GET -> Key augue
957 Client 1 Node 3 - GET augue -> Result NULL --> Expected magna
958
959 Node 1 -> Key dictum, Value sem
960 Client 1 Node 1 - PUT dictum, sem
961 Client 1 Delay: 1.12011273940173 seconds
962 Node 3 Updated! -> Key ultrices, Value Suspendisse
963 Node 3 Updated! -> Key augue, Value magna
964 Node 2 Updated! -> Key tellus, Value est
965 Node 2 Updated! -> Key dictum, Value sem
966 Node 1 GET -> Key tellus
967 Client 0 Node 1 - GET tellus -> Result est --> Expected est
968 Node 2 GET -> Key tellus
969 Client 0 Node 2 - GET tellus -> Result est --> Expected est
970 Node 3 GET -> Key tellus
971 Client 0 Node 3 - GET tellus -> Result NULL --> Expected est
972
973 Node 1 -> Key nibh, Value fermentum
974 Client 0 Node 1 - PUT nibh, fermentum
975 Client 0 Delay: 0.8969696711794912 seconds
976 Node 1 GET -> Key dictum
977 Client 1 Node 1 - GET dictum -> Result sem --> Expected sem
978 Node 2 GET -> Key dictum
979 Client 1 Node 2 - GET dictum -> Result sem --> Expected sem
980 Node 3 GET -> Key dictum
981 Client 1 Node 3 - GET dictum -> Result eu --> Expected sem
982
983 Node 1 -> Key eget, Value lectus
984 Client 1 Node 1 - PUT eget, lectus
985 Client 1 Delay: 0.8743377313230707 seconds
986 Node 2 Updated! -> Key nibh, Value fermentum
987 Node 3 Updated! -> Key dictum, Value sem
988 Node 3 Updated! -> Key tellus, Value est
989 Node 3 Updated! -> Key nibh, Value fermentum
990 Node 1 GET -> Key nibh
```

File - driver

```
991 Client 0 Node 1 - GET nibh -> Result fermentum --> Expected fermentum
992 Node 2 GET -> Key nibh
993 Client 0 Node 2 - GET nibh -> Result fermentum --> Expected fermentum
994 Node 3 GET -> Key nibh
995 Client 0 Node 3 - GET nibh -> Result fermentum --> Expected fermentum
996
997 Node 1 -> Key eleifend, Value cursus
998 Client 0 Node 1 - PUT eleifend, cursus
999 Client 0 Delay: 0.9334462514778074 seconds
1000 Node 2 Updated! -> Key eget, Value lectus
1001 Node 1 GET -> Key eget
1002 Client 1 Node 1 - GET eget -> Result lectus --> Expected lectus
1003 Node 2 GET -> Key eget
1004 Client 1 Node 2 - GET eget -> Result lectus --> Expected lectus
1005 Node 3 GET -> Key eget
1006 Client 1 Node 3 - GET eget -> Result NULL --> Expected lectus
1007
1008 Node 1 -> Key molestie, Value lorem
1009 Client 1 Node 1 - PUT molestie, lorem
1010 Client 1 Delay: 0.5814958745555701 seconds
1011 Node 3 Updated! -> Key eget, Value lectus
1012 Node 1 GET -> Key molestie
1013 Client 1 Node 1 - GET molestie -> Result lorem --> Expected lorem
1014 Node 2 GET -> Key molestie
1015 Client 1 Node 2 - GET molestie -> Result NULL --> Expected lorem
1016 Node 3 GET -> Key molestie
1017 Client 1 Node 3 - GET molestie -> Result NULL --> Expected lorem
1018
1019 Node 1 -> Key Nam, Value sit
1020 Client 1 Node 1 - PUT Nam, sit
1021 Client 1 Delay: 1.1740765562147164 seconds
1022 Node 2 Updated! -> Key molestie, Value lorem
1023 Node 2 Updated! -> Key eleifend, Value cursus
1024 Node 1 GET -> Key eleifend
1025 Client 0 Node 1 - GET eleifend -> Result cursus --> Expected cursus
1026 Node 2 GET -> Key eleifend
1027 Client 0 Node 2 - GET eleifend -> Result cursus --> Expected cursus
1028 Node 3 GET -> Key eleifend
1029 Client 0 Node 3 - GET eleifend -> Result NULL --> Expected cursus
1030
1031 Node 1 -> Key Suspendisse, Value Sed
1032 Client 0 Node 1 - PUT Suspendisse, Sed
1033 Client 0 Delay: 0.912237422561901 seconds
1034 Node 3 Updated! -> Key eleifend, Value cursus
1035 Node 3 Updated! -> Key molestie, Value lorem
1036 Node 2 Updated! -> Key Nam, Value sit
1037 Node 2 Updated! -> Key Suspendisse, Value Sed
1038 Node 1 GET -> Key Suspendisse
1039 Client 0 Node 1 - GET Suspendisse -> Result Sed --> Expected Sed
1040 Node 2 GET -> Key Suspendisse
1041 Client 0 Node 2 - GET Suspendisse -> Result Sed --> Expected Sed
1042 Node 3 GET -> Key Suspendisse
1043 Client 0 Node 3 - GET Suspendisse -> Result eu --> Expected Sed
1044
1045 Node 1 -> Key ut, Value amet
1046 Client 0 Node 1 - PUT ut, amet
1047 Client 0 Delay: 1.0921433736726471 seconds
1048 Node 1 GET -> Key Nam
1049 Client 1 Node 1 - GET Nam -> Result sit --> Expected sit
1050 Node 2 GET -> Key Nam
1051 Client 1 Node 2 - GET Nam -> Result sit --> Expected sit
1052 Node 3 GET -> Key Nam
```

File - driver

```
1053 Client 1 Node 3 - GET Nam -> Result NULL --> Expected sit
1054
1055 Node 1 Remove! -> Key lobortis
1056 Client 1 Node 1 - REMOVE lobortis -> Result vulputate
1057 Client 1 Delay: 1.1091275654276638 seconds
1058 Node 2 Updated! -> Key ut, Value amet
1059 Node 3 Updated! -> Key Suspendisse, Value Sed
1060 Node 3 Updated! -> Key ut, Value amet
1061 Node 3 Updated! -> Key Nam, Value sit
1062 Node 2 Updated Remove! -> Key lobortis
1063 Node 1 GET -> Key ut
1064 Client 0 Node 1 - GET ut -> Result amet --> Expected amet
1065 Node 2 GET -> Key ut
1066 Client 0 Node 2 - GET ut -> Result amet --> Expected amet
1067 Node 3 GET -> Key ut
1068 Client 0 Node 3 - GET ut -> Result amet --> Expected amet
1069
1070 Node 1 -> Key venenatis, Value orci
1071 Client 0 Node 1 - PUT venenatis, orci
1072 Client 0 Delay: 0.5394065305862777 seconds
1073 Node 1 GET -> Key lobortis
1074 Client 1 Node 1 - GET lobortis -> Result NULL --> Expected NULL
1075 Node 2 GET -> Key lobortis
1076 Client 1 Node 2 - GET lobortis -> Result NULL --> Expected NULL
1077 Node 3 GET -> Key lobortis
1078 Client 1 Node 3 - GET lobortis -> Result vulputate --> Expected NULL
1079
1080 Node 1 Remove! -> Key nulla
1081 Client 1 Node 1 - REMOVE nulla -> Result Nullam
1082 Client 1 Delay: 0.9232925346712693 seconds
1083 Node 3 Updated Remove! -> Key lobortis
1084 Node 1 GET -> Key venenatis
1085 Client 0 Node 1 - GET venenatis -> Result orci --> Expected orci
1086 Node 2 GET -> Key venenatis
1087 Client 0 Node 2 - GET venenatis -> Result NULL --> Expected orci
1088 Node 3 GET -> Key venenatis
1089 Client 0 Node 3 - GET venenatis -> Result NULL --> Expected orci
1090
1091 Node 1 -> Key Nunc, Value ultricies
1092 Client 0 Node 1 - PUT Nunc, ultricies
1093 Client 0 Delay: 0.6623871203726275 seconds
1094 Node 2 Updated Remove! -> Key nulla
1095 Node 2 Updated! -> Key venenatis, Value orci
1096 Node 1 GET -> Key nulla
1097 Client 1 Node 1 - GET nulla -> Result NULL --> Expected NULL
1098 Node 2 GET -> Key nulla
1099 Client 1 Node 2 - GET nulla -> Result NULL --> Expected NULL
1100 Node 3 GET -> Key nulla
1101 Client 1 Node 3 - GET nulla -> Result Nullam --> Expected NULL
1102
1103 Node 1 Remove! -> Key Nulla
1104 Client 1 Node 1 - REMOVE Nulla -> Result ipsum
1105 Client 1 Delay: 0.6188781747465096 seconds
1106 Node 3 Updated! -> Key venenatis, Value orci
1107 Node 1 GET -> Key Nunc
1108 Node 2 Updated! -> Key Nunc, Value ultricies
1109 Client 0 Node 1 - GET Nunc -> Result ultricies --> Expected ultricies
1110 Node 2 GET -> Key Nunc
1111 Client 0 Node 2 - GET Nunc -> Result ultricies --> Expected ultricies
1112 Node 3 GET -> Key Nunc
1113 Client 0 Node 3 - GET Nunc -> Result Donec --> Expected ultricies
1114
```

File - driver

```
1115 Node 1 Remove! -> Key turpis
1116 Client 0 Node 1 - REMOVE turpis -> Result libero
1117 Client 0 Delay: 1.0688869066890505 seconds
1118 Node 3 Updated Remove! -> Key nulla
1119 Node 2 Updated Remove! -> Key turpis
1120 Node 1 GET -> Key Nulla
1121 Client 1 Node 1 - GET Nulla -> Result NULL --> Expected NULL
1122 Node 2 GET -> Key Nulla
1123 Client 1 Node 2 - GET Nulla -> Result ipsum --> Expected NULL
1124 Node 3 GET -> Key Nulla
1125 Client 1 Node 3 - GET Nulla -> Result ipsum --> Expected NULL
1126
1127 Node 1 Remove! -> Key sed
1128 Client 1 Node 1 - REMOVE sed -> Result vestibulum
1129 Client 1 Delay: 0.8716133071624019 seconds
1130 Node 2 Updated Remove! -> Key Nulla
1131 Node 3 Updated! -> Key Nunc, Value ultricies
1132 Node 2 Updated Remove! -> Key sed
1133 Node 3 Updated Remove! -> Key sed
1134 Node 3 Updated Remove! -> Key Nulla
1135 Node 1 GET -> Key turpis
1136 Client 0 Node 1 - GET turpis -> Result NULL --> Expected NULL
1137 Node 2 GET -> Key turpis
1138 Client 0 Node 2 - GET turpis -> Result NULL --> Expected NULL
1139 Node 3 GET -> Key turpis
1140 Client 0 Node 3 - GET turpis -> Result libero --> Expected NULL
1141
1142 Node 1 Remove! -> Key magna
1143 Client 0 Node 1 - REMOVE magna -> Result magna
1144 Client 0 Delay: 0.8670467235150461 seconds
1145 Node 3 Updated Remove! -> Key turpis
1146 Node 1 GET -> Key sed
1147 Client 1 Node 1 - GET sed -> Result NULL --> Expected NULL
1148 Node 2 GET -> Key sed
1149 Client 1 Node 2 - GET sed -> Result NULL --> Expected NULL
1150 Node 3 GET -> Key sed
1151 Client 1 Node 3 - GET sed -> Result NULL --> Expected NULL
1152
1153 Node 1 Remove! -> Key tempus
1154 Client 1 Node 1 - REMOVE tempus -> Result elementum
1155 Client 1 Delay: 1.1596125573517864 seconds
1156 Node 1 GET -> Key magna
1157 Client 0 Node 1 - GET magna -> Result NULL --> Expected NULL
1158 Node 2 GET -> Key magna
1159 Client 0 Node 2 - GET magna -> Result magna --> Expected NULL
1160 Node 3 GET -> Key magna
1161 Client 0 Node 3 - GET magna -> Result magna --> Expected NULL
1162
1163 Node 1 Remove! -> Key tempus
1164 Client 0 Node 1 - REMOVE tempus -> Result NULL
1165 Client 0 Delay: 0.847128605306699 seconds
1166 Node 2 Updated Remove! -> Key magna
1167 Node 2 Updated Remove! -> Key tempus
1168 Node 1 GET -> Key tempus
1169 Client 1 Node 1 - GET tempus -> Result NULL --> Expected NULL
1170 Node 2 GET -> Key tempus
1171 Client 1 Node 2 - GET tempus -> Result NULL --> Expected NULL
1172 Node 3 GET -> Key tempus
1173 Client 1 Node 3 - GET tempus -> Result elementum --> Expected NULL
1174
1175 Node 1 Remove! -> Key ornare
1176 Client 1 Node 1 - REMOVE ornare -> Result tempor
```

File - driver

```
1177 Client 1 Delay: 0.8705361799168759 seconds
1178 Node 3 Updated Remove! -> Key tempus
1179 Node 3 Updated Remove! -> Key magna
1180 Node 1 GET -> Key tempus
1181 Client 0 Node 1 - GET tempus -> Result NULL --> Expected NULL
1182 Node 2 GET -> Key tempus
1183 Client 0 Node 2 - GET tempus -> Result NULL --> Expected NULL
1184 Node 3 GET -> Key tempus
1185 Client 0 Node 3 - GET tempus -> Result NULL --> Expected NULL
1186
1187 Node 1 Remove! -> Key nec
1188 Client 0 Node 1 - REMOVE nec -> Result ac
1189 Client 0 Delay: 0.901867179540932 seconds
1190 Node 2 Updated Remove! -> Key ornare
1191 Node 1 GET -> Key ornare
1192 Client 1 Node 1 - GET ornare -> Result NULL --> Expected NULL
1193 Node 2 GET -> Key ornare
1194 Client 1 Node 2 - GET ornare -> Result NULL --> Expected NULL
1195 Node 3 GET -> Key ornare
1196 Client 1 Node 3 - GET ornare -> Result tempor --> Expected NULL
1197
1198 Node 1 Remove! -> Key facilisis
1199 Client 1 Node 1 - REMOVE facilisis -> Result Donec
1200 Client 1 Delay: 1.171994814160385 seconds
1201 Node 3 Updated Remove! -> Key ornare
1202 Node 2 Updated Remove! -> Key nec
1203 Node 1 GET -> Key nec
1204 Client 0 Node 1 - GET nec -> Result NULL --> Expected NULL
1205 Node 2 GET -> Key nec
1206 Client 0 Node 2 - GET nec -> Result NULL --> Expected NULL
1207 Node 3 GET -> Key nec
1208 Client 0 Node 3 - GET nec -> Result ac --> Expected NULL
1209
1210 Node 1 Remove! -> Key sapien
1211 Client 0 Node 1 - REMOVE sapien -> Result Suspendisse
1212 Client 0 Delay: 0.8072939991988974 seconds
1213 Node 2 Updated Remove! -> Key facilisis
1214 Node 2 Updated Remove! -> Key sapien
1215 Node 3 Updated Remove! -> Key nec
1216 Node 1 GET -> Key sapien
1217 Client 0 Node 1 - GET sapien -> Result NULL --> Expected NULL
1218 Node 2 GET -> Key sapien
1219 Client 0 Node 2 - GET sapien -> Result NULL --> Expected NULL
1220 Node 3 GET -> Key sapien
1221 Client 0 Node 3 - GET sapien -> Result Suspendisse --> Expected NULL
1222
1223 Node 1 Remove! -> Key at
1224 Client 0 Node 1 - REMOVE at -> Result dolor
1225 Client 0 Delay: 1.0701132956679793 seconds
1226 Node 1 GET -> Key facilisis
1227 Client 1 Node 1 - GET facilisis -> Result NULL --> Expected NULL
1228 Node 2 GET -> Key facilisis
1229 Client 1 Node 2 - GET facilisis -> Result NULL --> Expected NULL
1230 Node 3 GET -> Key facilisis
1231 Client 1 Node 3 - GET facilisis -> Result Donec --> Expected NULL
1232
1233 Node 1 Remove! -> Key elit
1234 Client 1 Node 1 - REMOVE elit -> Result magna
1235 Client 1 Delay: 1.159562135708659 seconds
1236 Node 3 Updated Remove! -> Key facilisis
1237 Node 2 Updated Remove! -> Key at
1238 Node 3 Updated Remove! -> Key sapien
```

File - driver

```
1239 Node 2 Updated Remove! -> Key elit
1240 Node 3 Updated Remove! -> Key at
1241 Node 1 GET -> Key at
1242 Client 0 Node 1 - GET at -> Result NULL --> Expected NULL
1243 Node 2 GET -> Key at
1244 Client 0 Node 2 - GET at -> Result NULL --> Expected NULL
1245 Node 3 GET -> Key at
1246 Client 0 Node 3 - GET at -> Result NULL --> Expected NULL
1247
1248 Node 1 Remove! -> Key interdum
1249 Client 0 Node 1 - REMOVE interdum -> Result elementum
1250 Client 0 Delay: 1.1092475422456103 seconds
1251 Node 1 GET -> Key elit
1252 Client 1 Node 1 - GET elit -> Result NULL --> Expected NULL
1253 Node 2 GET -> Key elit
1254 Client 1 Node 2 - GET elit -> Result NULL --> Expected NULL
1255 Node 3 GET -> Key elit
1256 Client 1 Node 3 - GET elit -> Result magna --> Expected NULL
1257
1258 Node 1 Remove! -> Key Suspendisse
1259 Client 1 Node 1 - REMOVE Suspendisse -> Result Sed
1260 Client 1 Delay: 1.0462925987933311 seconds
1261 Node 3 Updated Remove! -> Key elit
1262 Node 2 Updated Remove! -> Key interdum
1263 Node 1 GET -> Key interdum
1264 Client 0 Node 1 - GET interdum -> Result NULL --> Expected NULL
1265 Node 2 GET -> Key interdum
1266 Client 0 Node 2 - GET interdum -> Result NULL --> Expected NULL
1267 Node 3 GET -> Key interdum
1268 Client 0 Node 3 - GET interdum -> Result elementum --> Expected NULL
1269
1270 Node 1 Remove! -> Key fermentum
1271 Client 0 Node 1 - REMOVE fermentum -> Result Duis
1272 Client 0 Delay: 0.5801013526537521 seconds
1273 Node 2 Updated Remove! -> Key Suspendisse
1274 Node 1 GET -> Key Suspendisse
1275 Client 1 Node 1 - GET Suspendisse -> Result NULL --> Expected NULL
1276 Node 2 GET -> Key Suspendisse
1277 Client 1 Node 2 - GET Suspendisse -> Result NULL --> Expected NULL
1278 Node 3 GET -> Key Suspendisse
1279 Client 1 Node 3 - GET Suspendisse -> Result Sed --> Expected NULL
1280
1281 Node 1 Remove! -> Key purus
1282 Client 1 Node 1 - REMOVE purus -> Result porta
1283 Client 1 Delay: 0.837708110086328 seconds
1284 Node 3 Updated Remove! -> Key interdum
1285 Node 1 GET -> Key fermentum
1286 Client 0 Node 1 - GET fermentum -> Result NULL --> Expected NULL
1287 Node 2 GET -> Key fermentum
1288 Client 0 Node 2 - GET fermentum -> Result Duis --> Expected NULL
1289 Node 3 GET -> Key fermentum
1290 Client 0 Node 3 - GET fermentum -> Result Duis --> Expected NULL
1291
1292 Node 1 Remove! -> Key nulla
1293 Client 0 Node 1 - REMOVE nulla -> Result NULL
1294 Client 0 Delay: 0.6376429539266482 seconds
1295 Node 2 Updated Remove! -> Key purus
1296 Node 3 Updated Remove! -> Key Suspendisse
1297 Node 2 Updated Remove! -> Key fermentum
1298 Node 1 GET -> Key purus
1299 Client 1 Node 1 - GET purus -> Result NULL --> Expected NULL
1300 Node 2 GET -> Key purus
```

File - driver

1301 Client 1 Node 2 - GET purus -> Result NULL --> Expected NULL  
1302 Node 3 GET -> Key purus  
1303 Client 1 Node 3 - GET purus -> Result porta --> Expected NULL  
1304  
1305 Node 1 Remove! -> Key cursus  
1306 Client 1 Node 1 - REMOVE cursus -> Result vitae  
1307 Client 1 Delay: 0.8935829875644078 seconds  
1308 Node 3 Updated Remove! -> Key purus  
1309 Node 3 Updated Remove! -> Key fermentum  
1310 Node 1 GET -> Key nulla  
1311 Client 0 Node 1 - GET nulla -> Result NULL --> Expected NULL  
1312 Node 2 GET -> Key nulla  
1313 Client 0 Node 2 - GET nulla -> Result NULL --> Expected NULL  
1314 Node 3 GET -> Key nulla  
1315 Client 0 Node 3 - GET nulla -> Result NULL --> Expected NULL  
1316  
1317 Node 1 Remove! -> Key mauris  
1318 Client 0 Node 1 - REMOVE mauris -> Result Vestibulum  
1319 Client 0 Delay: 1.1209449363613784 seconds  
1320 Node 2 Updated Remove! -> Key cursus  
1321 Node 2 Updated Remove! -> Key mauris  
1322 Node 1 GET -> Key cursus  
1323 Client 1 Node 1 - GET cursus -> Result NULL --> Expected NULL  
1324 Node 2 GET -> Key cursus  
1325 Client 1 Node 2 - GET cursus -> Result NULL --> Expected NULL  
1326 Node 3 GET -> Key cursus  
1327 Client 1 Node 3 - GET cursus -> Result vitae --> Expected NULL  
1328  
1329 Node 1 Remove! -> Key Nunc  
1330 Client 1 Node 1 - REMOVE Nunc -> Result ultricies  
1331 Client 1 Delay: 0.9163568973298044 seconds  
1332 Node 3 Updated Remove! -> Key cursus  
1333 Node 1 GET -> Key mauris  
1334 Client 0 Node 1 - GET mauris -> Result NULL --> Expected NULL  
1335 Node 2 GET -> Key mauris  
1336 Client 0 Node 2 - GET mauris -> Result NULL --> Expected NULL  
1337 Node 3 GET -> Key mauris  
1338 Client 0 Node 3 - GET mauris -> Result Vestibulum --> Expected NULL  
1339  
1340 Node 1 Remove! -> Key elementum  
1341 Client 0 Node 1 - REMOVE elementum -> Result orci  
1342 Client 0 Delay: 0.7455891205042943 seconds  
1343 Node 3 Updated Remove! -> Key mauris  
1344 Node 2 Updated Remove! -> Key Nunc  
1345 Node 1 GET -> Key Nunc  
1346 Client 1 Node 1 - GET Nunc -> Result NULL --> Expected NULL  
1347 Node 2 GET -> Key Nunc  
1348 Client 1 Node 2 - GET Nunc -> Result NULL --> Expected NULL  
1349 Node 3 GET -> Key Nunc  
1350 Client 1 Node 3 - GET Nunc -> Result ultricies --> Expected NULL  
1351  
1352 Node 1 Remove! -> Key mattis  
1353 Client 1 Node 1 - REMOVE mattis -> Result ut  
1354 Client 1 Delay: 0.776076641389942 seconds  
1355 Node 2 Updated Remove! -> Key elementum  
1356 Node 1 GET -> Key elementum  
1357 Client 0 Node 1 - GET elementum -> Result NULL --> Expected NULL  
1358 Node 2 GET -> Key elementum  
1359 Client 0 Node 2 - GET elementum -> Result NULL --> Expected NULL  
1360 Node 3 GET -> Key elementum  
1361 Client 0 Node 3 - GET elementum -> Result orci --> Expected NULL  
1362

File - driver

```
1363 Node 1 Remove! -> Key et
1364 Client 0 Node 1 - REMOVE et -> Result dolor
1365 Client 0 Delay: 1.0339082607703194 seconds
1366 Node 3 Updated Remove! -> Key Nunc
1367 Node 2 Updated Remove! -> Key mattis
1368 Node 2 Updated Remove! -> Key et
1369 Node 1 GET -> Key mattis
1370 Client 1 Node 1 - GET mattis -> Result NULL --> Expected NULL
1371 Node 2 GET -> Key mattis
1372 Client 1 Node 2 - GET mattis -> Result NULL --> Expected NULL
1373 Node 3 GET -> Key mattis
1374 Client 1 Node 3 - GET mattis -> Result ut --> Expected NULL
1375
1376 Node 1 Remove! -> Key ligula
1377 Client 1 Node 1 - REMOVE ligula -> Result eget
1378 Client 1 Delay: 1.0251549571254035 seconds
1379 Node 3 Updated Remove! -> Key elementum
1380 Node 1 GET -> Key et
1381 Client 0 Node 1 - GET et -> Result NULL --> Expected NULL
1382 Node 2 GET -> Key et
1383 Client 0 Node 2 - GET et -> Result NULL --> Expected NULL
1384 Node 3 GET -> Key et
1385 Client 0 Node 3 - GET et -> Result dolor --> Expected NULL
1386
1387 Node 1 Remove! -> Key gravida
1388 Client 0 Node 1 - REMOVE gravida -> Result Etiam
1389 Client 0 Delay: 0.9566458824622703 seconds
1390 Node 3 Updated Remove! -> Key et
1391 Node 3 Updated Remove! -> Key mattis
1392 Node 2 Updated Remove! -> Key ligula
1393 Node 1 GET -> Key ligula
1394 Client 1 Node 1 - GET ligula -> Result NULL --> Expected NULL
1395 Node 2 GET -> Key ligula
1396 Client 1 Node 2 - GET ligula -> Result NULL --> Expected NULL
1397 Node 3 GET -> Key ligula
1398 Client 1 Node 3 - GET ligula -> Result eget --> Expected NULL
1399
1400 Node 1 Remove! -> Key erat
1401 Client 1 Node 1 - REMOVE erat -> Result mi
1402 Client 1 Delay: 0.604170622373911 seconds
1403 Node 2 Updated Remove! -> Key gravida
1404 Node 1 GET -> Key gravida
1405 Client 0 Node 1 - GET gravida -> Result NULL --> Expected NULL
1406 Node 2 GET -> Key gravida
1407 Client 0 Node 2 - GET gravida -> Result NULL --> Expected NULL
1408 Node 3 GET -> Key gravida
1409 Client 0 Node 3 - GET gravida -> Result Etiam --> Expected NULL
1410
1411 Node 1 Remove! -> Key lacus
1412 Client 0 Node 1 - REMOVE lacus -> Result nonummy
1413 Client 0 Delay: 0.5031168065163031 seconds
1414 Node 1 GET -> Key erat
1415 Client 1 Node 1 - GET erat -> Result NULL --> Expected NULL
1416 Node 2 GET -> Key erat
1417 Client 1 Node 2 - GET erat -> Result mi --> Expected NULL
1418 Node 3 GET -> Key erat
1419 Client 1 Node 3 - GET erat -> Result mi --> Expected NULL
1420
1421 Node 1 Remove! -> Key blandit
1422 Client 1 Node 1 - REMOVE blandit -> Result risus
1423 Client 1 Delay: 0.6542293171899671 seconds
1424 Node 3 Updated Remove! -> Key ligula
```

File - driver

```
1425 Node 2 Updated Remove! -> Key erat
1426 Node 2 Updated Remove! -> Key blandit
1427 Node 3 Updated Remove! -> Key gravida
1428 Node 2 Updated Remove! -> Key lacus
1429 Node 1 GET -> Key lacus
1430 Client 0 Node 1 - GET lacus -> Result NULL --> Expected NULL
1431 Node 2 GET -> Key lacus
1432 Client 0 Node 2 - GET lacus -> Result NULL --> Expected NULL
1433 Node 3 GET -> Key lacus
1434 Client 0 Node 3 - GET lacus -> Result nonummy --> Expected NULL
1435
1436 Node 1 Remove! -> Key malesuada
1437 Client 0 Node 1 - REMOVE malesuada -> Result Aliquam
1438 Client 0 Delay: 0.8342095068981763 seconds
1439 Node 3 Updated Remove! -> Key lacus
1440 Node 3 Updated Remove! -> Key blandit
1441 Node 1 GET -> Key blandit
1442 Client 1 Node 1 - GET blandit -> Result NULL --> Expected NULL
1443 Node 2 GET -> Key blandit
1444 Client 1 Node 2 - GET blandit -> Result NULL --> Expected NULL
1445 Node 3 GET -> Key blandit
1446 Client 1 Node 3 - GET blandit -> Result NULL --> Expected NULL
1447
1448 Node 1 Remove! -> Key varius
1449 Client 1 Node 1 - REMOVE varius -> Result Morbi
1450 Client 1 Delay: 0.8795225167572174 seconds
1451 Node 3 Updated Remove! -> Key erat
1452 Node 2 Updated Remove! -> Key malesuada
1453 Node 2 Updated Remove! -> Key varius
1454 Node 1 GET -> Key malesuada
1455 Client 0 Node 1 - GET malesuada -> Result NULL --> Expected NULL
1456 Node 2 GET -> Key malesuada
1457 Client 0 Node 2 - GET malesuada -> Result NULL --> Expected NULL
1458 Node 3 GET -> Key malesuada
1459 Client 0 Node 3 - GET malesuada -> Result Aliquam --> Expected NULL
1460
1461 Node 1 Remove! -> Key In
1462 Client 0 Node 1 - REMOVE In -> Result lorem
1463 Client 0 Delay: 0.6290789919585587 seconds
1464 Node 1 GET -> Key varius
1465 Client 1 Node 1 - GET varius -> Result NULL --> Expected NULL
1466 Node 2 GET -> Key varius
1467 Client 1 Node 2 - GET varius -> Result NULL --> Expected NULL
1468 Node 3 GET -> Key varius
1469 Client 1 Node 3 - GET varius -> Result Morbi --> Expected NULL
1470
1471 Node 1 Remove! -> Key Proin
1472 Client 1 Node 1 - REMOVE Proin -> Result a
1473 Client 1 Delay: 0.7136925435542263 seconds
1474 Node 2 Updated Remove! -> Key In
1475 Node 3 Updated Remove! -> Key malesuada
1476 Node 3 Updated Remove! -> Key varius
1477 Node 1 GET -> Key In
1478 Client 0 Node 1 - GET In -> Result NULL --> Expected NULL
1479 Node 2 GET -> Key In
1480 Client 0 Node 2 - GET In -> Result NULL --> Expected NULL
1481 Node 3 GET -> Key In
1482 Client 0 Node 3 - GET In -> Result lorem --> Expected NULL
1483
1484 Node 1 Remove! -> Key Duis
1485 Client 0 Node 1 - REMOVE Duis -> Result euismod
1486 Client 0 Delay: 1.1413793731219117 seconds
```

File - driver

```
1487 Node 3 Updated Remove! -> Key In
1488 Node 2 Updated Remove! -> Key Proin
1489 Node 1 GET -> Key Proin
1490 Client 1 Node 1 - GET Proin -> Result NULL --> Expected NULL
1491 Node 2 GET -> Key Proin
1492 Client 1 Node 2 - GET Proin -> Result NULL --> Expected NULL
1493 Node 3 GET -> Key Proin
1494 Client 1 Node 3 - GET Proin -> Result a --> Expected NULL
1495
1496 Node 1 Remove! -> Key orci
1497 Client 1 Node 1 - REMOVE orci -> Result eros
1498 Client 1 Delay: 1.145280844601885 seconds
1499 Node 2 Updated Remove! -> Key Duis
1500 Node 3 Updated Remove! -> Key Proin
1501 Node 1 GET -> Key Duis
1502 Client 0 Node 1 - GET Duis -> Result NULL --> Expected NULL
1503 Node 2 GET -> Key Duis
1504 Client 0 Node 2 - GET Duis -> Result NULL --> Expected NULL
1505 Node 3 GET -> Key Duis
1506 Client 0 Node 3 - GET Duis -> Result euismod --> Expected NULL
1507
1508 Node 1 Remove! -> Key Aenean
1509 Client 0 Node 1 - REMOVE Aenean -> Result Fusce
1510 Client 0 Delay: 0.6769535674475099 seconds
1511 Node 2 Updated Remove! -> Key orci
1512 Node 1 GET -> Key orci
1513 Client 1 Node 1 - GET orci -> Result NULL --> Expected NULL
1514 Node 2 GET -> Key orci
1515 Client 1 Node 2 - GET orci -> Result NULL --> Expected NULL
1516 Node 3 GET -> Key orci
1517 Client 1 Node 3 - GET orci -> Result eros --> Expected NULL
1518
1519 Node 1 Remove! -> Key a
1520 Client 1 Node 1 - REMOVE a -> Result at
1521 Client 1 Delay: 0.7709069358994325 seconds
1522 Node 3 Updated Remove! -> Key orci
1523 Node 2 Updated Remove! -> Key Aenean
1524 Node 3 Updated Remove! -> Key Duis
1525 Node 1 GET -> Key Aenean
1526 Client 0 Node 1 - GET Aenean -> Result NULL --> Expected NULL
1527 Node 2 GET -> Key Aenean
1528 Client 0 Node 2 - GET Aenean -> Result NULL --> Expected NULL
1529 Node 3 GET -> Key Aenean
1530 Client 0 Node 3 - GET Aenean -> Result Fusce --> Expected NULL
1531
1532 Node 1 Remove! -> Key ipsum
1533 Client 0 Node 1 - REMOVE ipsum -> Result in
1534 Client 0 Delay: 0.8876179122413197 seconds
1535 Node 3 Updated Remove! -> Key Aenean
1536 Node 1 GET -> Key a
1537 Client 1 Node 1 - GET a -> Result NULL --> Expected NULL
1538 Node 2 GET -> Key a
1539 Client 1 Node 2 - GET a -> Result at --> Expected NULL
1540 Node 3 GET -> Key a
1541 Client 1 Node 3 - GET a -> Result at --> Expected NULL
1542
1543 Node 1 Remove! -> Key magnis
1544 Client 1 Node 1 - REMOVE magnis -> Result aliquet
1545 Client 1 Delay: 0.9732655063119193 seconds
1546 Node 2 Updated Remove! -> Key a
1547 Node 2 Updated Remove! -> Key ipsum
1548 Node 2 Updated Remove! -> Key magnis
```

File - driver

```
1549 Node 1 GET -> Key ipsum
1550 Client 0 Node 1 - GET ipsum -> Result NULL --> Expected NULL
1551 Node 2 GET -> Key ipsum
1552 Client 0 Node 2 - GET ipsum -> Result NULL --> Expected NULL
1553 Node 3 GET -> Key ipsum
1554 Client 0 Node 3 - GET ipsum -> Result in --> Expected NULL
1555
1556 Node 1 Remove! -> Key Vestibulum
1557 Client 0 Node 1 - REMOVE Vestibulum -> Result ipsum
1558 Client 0 Delay: 0.6116367974153578 seconds
1559 Node 3 Updated Remove! -> Key magnis
1560 Node 3 Updated Remove! -> Key ipsum
1561 Node 1 GET -> Key magnis
1562 Client 1 Node 1 - GET magnis -> Result NULL --> Expected NULL
1563 Node 2 GET -> Key magnis
1564 Client 1 Node 2 - GET magnis -> Result NULL --> Expected NULL
1565 Node 3 GET -> Key magnis
1566 Client 1 Node 3 - GET magnis -> Result NULL --> Expected NULL
1567
1568 Node 1 Remove! -> Key Quisque
1569 Client 1 Node 1 - REMOVE Quisque -> Result vitae
1570 Client 1 Delay: 0.7028040261267512 seconds
1571 Node 1 GET -> Key Vestibulum
1572 Client 0 Node 1 - GET Vestibulum -> Result NULL --> Expected NULL
1573 Node 2 GET -> Key Vestibulum
1574 Client 0 Node 2 - GET Vestibulum -> Result ipsum --> Expected NULL
1575 Node 3 GET -> Key Vestibulum
1576 Client 0 Node 3 - GET Vestibulum -> Result ipsum --> Expected NULL
1577
1578 Node 1 Remove! -> Key Fusce
1579 Client 0 Node 1 - REMOVE Fusce -> Result Nunc
1580 Client 0 Delay: 1.0943480246957558 seconds
1581 Node 3 Updated Remove! -> Key a
1582 Node 2 Updated Remove! -> Key Fusce
1583 Node 2 Updated Remove! -> Key Vestibulum
1584 Node 1 GET -> Key Quisque
1585 Client 1 Node 1 - GET Quisque -> Result NULL --> Expected NULL
1586 Node 2 GET -> Key Quisque
1587 Client 1 Node 2 - GET Quisque -> Result vitae --> Expected NULL
1588 Node 3 GET -> Key Quisque
1589 Client 1 Node 3 - GET Quisque -> Result vitae --> Expected NULL
1590
1591 Node 1 Remove! -> Key interdum
1592 Client 1 Node 1 - REMOVE interdum -> Result NULL
1593 Client 1 Delay: 0.5406638357080733 seconds
1594 Node 2 Updated Remove! -> Key Quisque
1595 Node 3 Updated Remove! -> Key Vestibulum
1596 Node 3 Updated Remove! -> Key Fusce
1597 Node 1 GET -> Key Fusce
1598 Client 0 Node 1 - GET Fusce -> Result NULL --> Expected NULL
1599 Node 2 GET -> Key Fusce
1600 Client 0 Node 2 - GET Fusce -> Result NULL --> Expected NULL
1601 Node 3 GET -> Key Fusce
1602 Client 0 Node 3 - GET Fusce -> Result NULL --> Expected NULL
1603
1604 Node 1 Remove! -> Key Integer
1605 Client 0 Node 1 - REMOVE Integer -> Result at
1606 Client 0 Delay: 0.8725532151194196 seconds
1607 Node 1 GET -> Key interdum
1608 Client 1 Node 1 - GET interdum -> Result NULL --> Expected NULL
1609 Node 2 GET -> Key interdum
1610 Client 1 Node 2 - GET interdum -> Result NULL --> Expected NULL
```

File - driver

```
1611 Node 3 GET -> Key interdum
1612 Client 1 Node 3 - GET interdum -> Result NULL --> Expected NULL
1613
1614 Node 1 Remove! -> Key magna
1615 Client 1 Node 1 - REMOVE magna -> Result NULL
1616 Client 1 Delay: 0.6611374213489719 seconds
1617 Node 3 Updated Remove! -> Key Quisque
1618 Node 2 Updated Remove! -> Key Integer
1619 Node 1 GET -> Key magna
1620 Client 1 Node 1 - GET magna -> Result NULL --> Expected NULL
1621 Node 2 GET -> Key magna
1622 Client 1 Node 2 - GET magna -> Result NULL --> Expected NULL
1623 Node 3 GET -> Key magna
1624 Client 1 Node 3 - GET magna -> Result NULL --> Expected NULL
1625
1626 Node 1 Remove! -> Key lorem
1627 Client 1 Node 1 - REMOVE lorem -> Result vel
1628 Client 1 Delay: 0.91694962146428 seconds
1629 Node 3 Updated Remove! -> Key Integer
1630 Node 1 GET -> Key Integer
1631 Client 0 Node 1 - GET Integer -> Result NULL --> Expected NULL
1632 Node 2 GET -> Key Integer
1633 Client 0 Node 2 - GET Integer -> Result NULL --> Expected NULL
1634 Node 3 GET -> Key Integer
1635 Client 0 Node 3 - GET Integer -> Result NULL --> Expected NULL
1636
1637 Node 1 Remove! -> Key Aliquam
1638 Client 0 Node 1 - REMOVE Aliquam -> Result sem
1639 Client 0 Delay: 0.6515238209843631 seconds
1640 Node 2 Updated Remove! -> Key lorem
1641 Node 1 GET -> Key Aliquam
1642 Client 0 Node 1 - GET Aliquam -> Result NULL --> Expected NULL
1643 Node 2 GET -> Key Aliquam
1644 Client 0 Node 2 - GET Aliquam -> Result sem --> Expected NULL
1645 Node 3 GET -> Key Aliquam
1646 Client 0 Node 3 - GET Aliquam -> Result sem --> Expected NULL
1647
1648 Node 1 Remove! -> Key vel
1649 Client 0 Node 1 - REMOVE vel -> Result non
1650 Client 0 Delay: 1.1787397720993986 seconds
1651 Node 2 Updated Remove! -> Key Aliquam
1652 Node 1 GET -> Key lorem
1653 Client 1 Node 1 - GET lorem -> Result NULL --> Expected NULL
1654 Node 2 GET -> Key lorem
1655 Client 1 Node 2 - GET lorem -> Result NULL --> Expected NULL
1656 Node 3 GET -> Key lorem
1657 Client 1 Node 3 - GET lorem -> Result vel --> Expected NULL
1658
1659 Node 1 Remove! -> Key Morbi
1660 Client 1 Node 1 - REMOVE Morbi -> Result turpis
1661 Client 1 Delay: 0.6781055669910724 seconds
1662 Node 3 Updated Remove! -> Key lorem
1663 Node 2 Updated Remove! -> Key Morbi
1664 Node 2 Updated Remove! -> Key vel
1665 Node 1 GET -> Key Morbi
1666 Client 1 Node 1 - GET Morbi -> Result NULL --> Expected NULL
1667 Node 2 GET -> Key Morbi
1668 Client 1 Node 2 - GET Morbi -> Result NULL --> Expected NULL
1669 Node 3 GET -> Key Morbi
1670 Client 1 Node 3 - GET Morbi -> Result turpis --> Expected NULL
1671
1672 Node 1 Remove! -> Key luctus
```

File - driver

```
1673 Client 1 Node 1 - REMOVE luctus -> Result sem
1674 Client 1 Delay: 0.7753491961407639 seconds
1675 Node 3 Updated Remove! -> Key vel
1676 Node 3 Updated Remove! -> Key Aliquam
1677 Node 3 Updated Remove! -> Key Morbi
1678 Node 1 GET -> Key vel
1679 Client 0 Node 1 - GET vel -> Result NULL --> Expected NULL
1680 Node 2 GET -> Key vel
1681 Client 0 Node 2 - GET vel -> Result NULL --> Expected NULL
1682 Node 3 GET -> Key vel
1683 Client 0 Node 3 - GET vel -> Result NULL --> Expected NULL
1684
1685 Node 1 Remove! -> Key lectus
1686 Client 0 Node 1 - REMOVE lectus -> Result semper
1687 Client 0 Delay: 0.5979820737607293 seconds
1688 Node 2 Updated Remove! -> Key lectus
1689 Node 2 Updated Remove! -> Key lectus
1690 Node 1 GET -> Key lectus
1691 Client 1 Node 1 - GET lectus -> Result NULL --> Expected NULL
1692 Node 2 GET -> Key lectus
1693 Client 1 Node 2 - GET lectus -> Result NULL --> Expected NULL
1694 Node 3 GET -> Key lectus
1695 Client 1 Node 3 - GET lectus -> Result sem --> Expected NULL
1696
1697 Node 1 Remove! -> Key sit
1698 Client 1 Node 1 - REMOVE sit -> Result augue
1699 Client 1 Delay: 1.1130729902090626 seconds
1700 Node 1 GET -> Key lectus
1701 Client 0 Node 1 - GET lectus -> Result NULL --> Expected NULL
1702 Node 2 GET -> Key lectus
1703 Client 0 Node 2 - GET lectus -> Result NULL --> Expected NULL
1704 Node 3 GET -> Key lectus
1705 Client 0 Node 3 - GET lectus -> Result semper --> Expected NULL
1706
1707 Node 1 Remove! -> Key dignissim
1708 Client 0 Node 1 - REMOVE dignissim -> Result eget
1709 Client 0 Delay: 0.6363272415146424 seconds
1710 Node 3 Updated Remove! -> Key lectus
1711 Node 2 Updated Remove! -> Key sit
1712 Node 3 Updated Remove! -> Key lectus
1713 Node 3 Updated Remove! -> Key sit
1714 Node 2 Updated Remove! -> Key dignissim
1715 Node 1 GET -> Key dignissim
1716 Client 0 Node 1 - GET dignissim -> Result NULL --> Expected NULL
1717 Node 2 GET -> Key dignissim
1718 Client 0 Node 2 - GET dignissim -> Result NULL --> Expected NULL
1719 Node 3 GET -> Key dignissim
1720 Client 0 Node 3 - GET dignissim -> Result eget --> Expected NULL
1721
1722 Node 1 Remove! -> Key Donec
1723 Client 0 Node 1 - REMOVE Donec -> Result fringilla
1724 Client 0 Delay: 0.7197530285589457 seconds
1725 Node 3 Updated Remove! -> Key dignissim
1726 Node 2 Updated Remove! -> Key Donec
1727 Node 1 GET -> Key sit
1728 Client 1 Node 1 - GET sit -> Result NULL --> Expected NULL
1729 Node 2 GET -> Key sit
1730 Client 1 Node 2 - GET sit -> Result NULL --> Expected NULL
1731 Node 3 GET -> Key sit
1732 Client 1 Node 3 - GET sit -> Result NULL --> Expected NULL
1733
1734 Node 1 Remove! -> Key et
```

File - driver

```
1735 Client 1 Node 1 - REMOVE et -> Result NULL
1736 Client 1 Delay: 0.5865817196796453 seconds
1737 Node 1 GET -> Key Donec
1738 Client 0 Node 1 - GET Donec -> Result NULL --> Expected NULL
1739 Node 2 GET -> Key Donec
1740 Client 0 Node 2 - GET Donec -> Result NULL --> Expected NULL
1741 Node 3 GET -> Key Donec
1742 Client 0 Node 3 - GET Donec -> Result fringilla --> Expected NULL
1743
1744 Node 1 Remove! -> Key nascetur
1745 Client 0 Node 1 - REMOVE nascetur -> Result convallis
1746 Client 0 Delay: 1.1486254805417075 seconds
1747 Node 3 Updated Remove! -> Key Donec
1748 Node 1 GET -> Key et
1749 Client 1 Node 1 - GET et -> Result NULL --> Expected NULL
1750 Node 2 GET -> Key et
1751 Client 1 Node 2 - GET et -> Result NULL --> Expected NULL
1752 Node 3 GET -> Key et
1753 Client 1 Node 3 - GET et -> Result NULL --> Expected NULL
1754
1755 Node 1 Remove! -> Key Donec
1756 Client 1 Node 1 - REMOVE Donec -> Result NULL
1757 Client 1 Delay: 0.8470365602431291 seconds
1758 Node 2 Updated Remove! -> Key nascetur
1759 Node 1 GET -> Key Donec
1760 Client 1 Node 1 - GET Donec -> Result NULL --> Expected NULL
1761 Node 2 GET -> Key Donec
1762 Client 1 Node 2 - GET Donec -> Result NULL --> Expected NULL
1763 Node 3 GET -> Key Donec
1764 Client 1 Node 3 - GET Donec -> Result NULL --> Expected NULL
1765
1766 Node 1 Remove! -> Key consectetur
1767 Client 1 Node 1 - REMOVE consectetur -> Result nisi
1768 Client 1 Delay: 0.6736966352604141 seconds
1769 Node 1 GET -> Key nascetur
1770 Client 0 Node 1 - GET nascetur -> Result NULL --> Expected NULL
1771 Node 2 GET -> Key nascetur
1772 Client 0 Node 2 - GET nascetur -> Result NULL --> Expected NULL
1773 Node 3 GET -> Key nascetur
1774 Client 0 Node 3 - GET nascetur -> Result convallis --> Expected NULL
1775
1776 Node 1 Remove! -> Key mus
1777 Client 0 Node 1 - REMOVE mus -> Result tristique
1778 Client 0 Delay: 0.7550401826150468 seconds
1779 Node 3 Updated Remove! -> Key nascetur
1780 Node 2 Updated Remove! -> Key mus
1781 Node 1 GET -> Key consectetur
1782 Client 1 Node 1 - GET consectetur -> Result NULL --> Expected NULL
1783 Node 2 GET -> Key consectetur
1784 Client 1 Node 2 - GET consectetur -> Result nisi --> Expected NULL
1785 Node 3 GET -> Key consectetur
1786 Client 1 Node 3 - GET consectetur -> Result nisi --> Expected NULL
1787
1788 Node 1 Remove! -> Key semper
1789 Client 1 Node 1 - REMOVE semper -> Result Donec
1790 Client 1 Delay: 1.0013204588572475 seconds
1791 Node 2 Updated Remove! -> Key consectetur
1792 Node 1 GET -> Key mus
1793 Client 0 Node 1 - GET mus -> Result NULL --> Expected NULL
1794 Node 2 GET -> Key mus
1795 Client 0 Node 2 - GET mus -> Result NULL --> Expected NULL
1796 Node 3 GET -> Key mus
```

File - driver

```
1797 Client 0 Node 3 - GET mus -> Result tristique --> Expected NULL
1798
1799 Node 1 Remove! -> Key sed
1800 Client 0 Node 1 - REMOVE sed -> Result NULL
1801 Client 0 Delay: 0.5986150598182965 seconds
1802 Node 3 Updated Remove! -> Key mus
1803 Node 3 Updated Remove! -> Key consecutetuer
1804 Node 2 Updated Remove! -> Key semper
1805 Node 1 GET -> Key sed
1806 Client 0 Node 1 - GET sed -> Result NULL --> Expected NULL
1807 Node 2 GET -> Key sed
1808 Client 0 Node 2 - GET sed -> Result NULL --> Expected NULL
1809 Node 3 GET -> Key sed
1810 Client 0 Node 3 - GET sed -> Result NULL --> Expected NULL
1811
1812 Node 1 Remove! -> Key massa
1813 Client 0 Node 1 - REMOVE massa -> Result mattis
1814 Client 0 Delay: 0.6161642697385095 seconds
1815 Node 1 GET -> Key semper
1816 Client 1 Node 1 - GET semper -> Result NULL --> Expected NULL
1817 Node 2 GET -> Key semper
1818 Client 1 Node 2 - GET semper -> Result NULL --> Expected NULL
1819 Node 3 GET -> Key semper
1820 Client 1 Node 3 - GET semper -> Result Donec --> Expected NULL
1821
1822 Node 1 Remove! -> Key vel
1823 Client 1 Node 1 - REMOVE vel -> Result NULL
1824 Client 1 Delay: 0.5053334204524983 seconds
1825 Node 3 Updated Remove! -> Key semper
1826 Node 2 Updated Remove! -> Key massa
1827 Node 1 GET -> Key massa
1828 Client 0 Node 1 - GET massa -> Result NULL --> Expected NULL
1829 Node 2 GET -> Key massa
1830 Client 0 Node 2 - GET massa -> Result NULL --> Expected NULL
1831 Node 3 GET -> Key massa
1832 Client 0 Node 3 - GET massa -> Result mattis --> Expected NULL
1833
1834 Node 1 Remove! -> Key dictum
1835 Client 0 Node 1 - REMOVE dictum -> Result sem
1836 Client 0 Delay: 1.13948921862776 seconds
1837 Node 1 GET -> Key vel
1838 Client 1 Node 1 - GET vel -> Result NULL --> Expected NULL
1839 Node 2 GET -> Key vel
1840 Client 1 Node 2 - GET vel -> Result NULL --> Expected NULL
1841 Node 3 GET -> Key vel
1842 Client 1 Node 3 - GET vel -> Result NULL --> Expected NULL
1843
1844 Node 1 Remove! -> Key nec
1845 Client 1 Node 1 - REMOVE nec -> Result NULL
1846 Client 1 Delay: 0.9632877178899766 seconds
1847 Node 3 Updated Remove! -> Key massa
1848 Node 2 Updated Remove! -> Key dictum
1849 Node 3 Updated Remove! -> Key dictum
1850 Node 1 GET -> Key nec
1851 Client 1 Node 1 - GET nec -> Result NULL --> Expected NULL
1852 Node 2 GET -> Key nec
1853 Client 1 Node 2 - GET nec -> Result NULL --> Expected NULL
1854 Node 3 GET -> Key nec
1855 Client 1 Node 3 - GET nec -> Result NULL --> Expected NULL
1856
1857 Node 1 Remove! -> Key Pellentesque
1858 Client 1 Node 1 - REMOVE Pellentesque -> Result nec
```

File - driver

```
1859 Client 1 Delay: 0.8070056894822705 seconds
1860 Node 1 GET -> Key dictum
1861 Client 0 Node 1 - GET dictum -> Result NULL --> Expected NULL
1862 Node 2 GET -> Key dictum
1863 Client 0 Node 2 - GET dictum -> Result NULL --> Expected NULL
1864 Node 3 GET -> Key dictum
1865 Client 0 Node 3 - GET dictum -> Result NULL --> Expected NULL
1866
1867 Node 1 Remove! -> Key est
1868 Client 0 Node 1 - REMOVE est -> Result at
1869 Client 0 Delay: 0.9871284868217514 seconds
1870 Node 2 Updated Remove! -> Key Pellentesque
1871 Node 2 Updated Remove! -> Key est
1872 Node 1 GET -> Key Pellentesque
1873 Client 1 Node 1 - GET Pellentesque -> Result NULL --> Expected NULL
1874 Node 2 GET -> Key Pellentesque
1875 Client 1 Node 2 - GET Pellentesque -> Result NULL --> Expected NULL
1876 Node 3 GET -> Key Pellentesque
1877 Client 1 Node 3 - GET Pellentesque -> Result nec --> Expected NULL
1878
1879 Node 1 Remove! -> Key scelerisque
1880 Client 1 Node 1 - REMOVE scelerisque -> Result augue
1881 Client 1 Delay: 0.7223495441321612 seconds
1882 Node 2 Updated Remove! -> Key scelerisque
1883 Node 3 Updated Remove! -> Key Pellentesque
1884 Node 1 GET -> Key est
1885 Client 0 Node 1 - GET est -> Result NULL --> Expected NULL
1886 Node 2 GET -> Key est
1887 Client 0 Node 2 - GET est -> Result NULL --> Expected NULL
1888 Node 3 GET -> Key est
1889 Client 0 Node 3 - GET est -> Result at --> Expected NULL
1890
1891 Node 1 Remove! -> Key ac
1892 Client 0 Node 1 - REMOVE ac -> Result id
1893 Client 0 Delay: 0.7281461569838205 seconds
1894 Node 3 Updated Remove! -> Key est
1895 Node 1 GET -> Key scelerisque
1896 Client 1 Node 1 - GET scelerisque -> Result NULL --> Expected NULL
1897 Node 2 GET -> Key scelerisque
1898 Client 1 Node 2 - GET scelerisque -> Result NULL --> Expected NULL
1899 Node 3 GET -> Key scelerisque
1900 Client 1 Node 3 - GET scelerisque -> Result augue --> Expected NULL
1901
1902 Node 1 Remove! -> Key fringilla
1903 Client 1 Node 1 - REMOVE fringilla -> Result Quisque
1904 Client 1 Delay: 0.7190345214277603 seconds
1905 Node 3 Updated Remove! -> Key scelerisque
1906 Node 1 GET -> Key ac
1907 Client 0 Node 1 - GET ac -> Result NULL --> Expected NULL
1908 Node 2 GET -> Key ac
1909 Client 0 Node 2 - GET ac -> Result id --> Expected NULL
1910 Node 3 GET -> Key ac
1911 Client 0 Node 3 - GET ac -> Result id --> Expected NULL
1912
1913 Node 1 Remove! -> Key Maecenas
1914 Client 0 Node 1 - REMOVE Maecenas -> Result Suspendisse
1915 Client 0 Delay: 1.0270153998516904 seconds
1916 Node 2 Updated Remove! -> Key ac
1917 Node 2 Updated Remove! -> Key fringilla
1918 Node 1 GET -> Key fringilla
1919 Client 1 Node 1 - GET fringilla -> Result NULL --> Expected NULL
1920 Node 2 GET -> Key fringilla
```

File - driver

```
1921 Client 1 Node 2 - GET fringilla -> Result NULL --> Expected NULL
1922 Node 3 GET -> Key fringilla
1923 Client 1 Node 3 - GET fringilla -> Result Quisque --> Expected NULL
1924
1925 Node 1 Remove! -> Key metus
1926 Client 1 Node 1 - REMOVE metus -> Result Morbi
1927 Client 1 Delay: 0.9966767620353543 seconds
1928 Node 2 Updated Remove! -> Key Maecenas
1929 Node 1 GET -> Key Maecenas
1930 Client 0 Node 1 - GET Maecenas -> Result NULL --> Expected NULL
1931 Node 2 GET -> Key Maecenas
1932 Client 0 Node 2 - GET Maecenas -> Result NULL --> Expected NULL
1933 Node 3 GET -> Key Maecenas
1934 Client 0 Node 3 - GET Maecenas -> Result Suspendisse --> Expected NULL
1935
1936 Node 1 Remove! -> Key vitae
1937 Client 0 Node 1 - REMOVE vitae -> Result mauris
1938 Client 0 Delay: 0.8141956836165762 seconds
1939 Node 3 Updated Remove! -> Key ac
1940 Node 3 Updated Remove! -> Key fringilla
1941 Node 2 Updated Remove! -> Key metus
1942 Node 1 GET -> Key metus
1943 Client 1 Node 1 - GET metus -> Result NULL --> Expected NULL
1944 Node 2 GET -> Key metus
1945 Client 1 Node 2 - GET metus -> Result NULL --> Expected NULL
1946 Node 3 GET -> Key metus
1947 Client 1 Node 3 - GET metus -> Result Morbi --> Expected NULL
1948
1949 Node 1 Remove! -> Key ut
1950 Client 1 Node 1 - REMOVE ut -> Result amet
1951 Client 1 Delay: 0.5238561513165526 seconds
1952 Node 3 Updated Remove! -> Key Maecenas
1953 Node 2 Updated Remove! -> Key vitae
1954 Node 2 Updated Remove! -> Key ut
1955 Node 3 Updated Remove! -> Key metus
1956 Node 1 GET -> Key vitae
1957 Client 0 Node 1 - GET vitae -> Result NULL --> Expected NULL
1958 Node 2 GET -> Key vitae
1959 Client 0 Node 2 - GET vitae -> Result NULL --> Expected NULL
1960 Node 3 GET -> Key vitae
1961 Client 0 Node 3 - GET vitae -> Result mauris --> Expected NULL
1962
1963 Node 1 Remove! -> Key leo
1964 Client 0 Node 1 - REMOVE leo -> Result in
1965 Client 0 Delay: 0.6042767930876053 seconds
1966 Node 1 GET -> Key ut
1967 Client 1 Node 1 - GET ut -> Result NULL --> Expected NULL
1968 Node 2 GET -> Key ut
1969 Client 1 Node 2 - GET ut -> Result NULL --> Expected NULL
1970 Node 3 GET -> Key ut
1971 Client 1 Node 3 - GET ut -> Result amet --> Expected NULL
1972
1973 Node 1 Remove! -> Key augue
1974 Client 1 Node 1 - REMOVE augue -> Result magna
1975 Client 1 Delay: 1.199205529392513 seconds
1976 Node 2 Updated Remove! -> Key augue
1977 Node 2 Updated Remove! -> Key leo
1978 Node 1 GET -> Key leo
1979 Client 0 Node 1 - GET leo -> Result NULL --> Expected NULL
1980 Node 2 GET -> Key leo
1981 Client 0 Node 2 - GET leo -> Result NULL --> Expected NULL
1982 Node 3 Updated Remove! -> Key ut
```

File - driver

```
1983 Node 3 GET -> Key leo
1984 Client 0 Node 3 - GET leo -> Result in --> Expected NULL
1985
1986 Node 1 Remove! -> Key iaculis
1987 Client 0 Node 1 - REMOVE iaculis -> Result pharetra
1988 Client 0 Delay: 1.0651482013054856 seconds
1989 Node 3 Updated Remove! -> Key vitae
1990 Node 3 Updated Remove! -> Key augue
1991 Node 2 Updated Remove! -> Key iaculis
1992 Node 1 GET -> Key augue
1993 Client 1 Node 1 - GET augue -> Result NULL --> Expected NULL
1994 Node 2 GET -> Key augue
1995 Client 1 Node 2 - GET augue -> Result NULL --> Expected NULL
1996 Node 3 GET -> Key augue
1997 Client 1 Node 3 - GET augue -> Result NULL --> Expected NULL
1998
1999 Node 1 Remove! -> Key dictum
2000 Client 1 Node 1 - REMOVE dictum -> Result NULL
2001 Client 1 Delay: 0.9455844438201387 seconds
2002 Node 3 Updated Remove! -> Key leo
2003 Node 1 GET -> Key iaculis
2004 Client 0 Node 1 - GET iaculis -> Result NULL --> Expected NULL
2005 Node 2 GET -> Key iaculis
2006 Client 0 Node 2 - GET iaculis -> Result NULL --> Expected NULL
2007 Node 3 GET -> Key iaculis
2008 Client 0 Node 3 - GET iaculis -> Result pharetra --> Expected NULL
2009
2010 Node 1 Remove! -> Key ultrices
2011 Client 0 Node 1 - REMOVE ultrices -> Result Suspendisse
2012 Client 0 Delay: 1.0589212668769776 seconds
2013 Node 3 Updated Remove! -> Key iaculis
2014 Node 2 Updated Remove! -> Key ultrices
2015 Node 1 GET -> Key dictum
2016 Client 1 Node 1 - GET dictum -> Result NULL --> Expected NULL
2017 Node 2 GET -> Key dictum
2018 Client 1 Node 2 - GET dictum -> Result NULL --> Expected NULL
2019 Node 3 GET -> Key dictum
2020 Client 1 Node 3 - GET dictum -> Result NULL --> Expected NULL
2021
2022 Node 1 Remove! -> Key eget
2023 Client 1 Node 1 - REMOVE eget -> Result lectus
2024 Client 1 Delay: 0.9927596616824828 seconds
2025 Node 1 GET -> Key ultrices
2026 Client 0 Node 1 - GET ultrices -> Result NULL --> Expected NULL
2027 Node 2 GET -> Key ultrices
2028 Client 0 Node 2 - GET ultrices -> Result NULL --> Expected NULL
2029 Node 3 GET -> Key ultrices
2030 Client 0 Node 3 - GET ultrices -> Result Suspendisse --> Expected NULL
2031
2032 Node 1 Remove! -> Key tellus
2033 Client 0 Node 1 - REMOVE tellus -> Result est
2034 Client 0 Delay: 0.5595122016900124 seconds
2035 Node 3 Updated Remove! -> Key ultrices
2036 Node 2 Updated Remove! -> Key eget
2037 Node 1 GET -> Key eget
2038 Client 1 Node 1 - GET eget -> Result NULL --> Expected NULL
2039 Node 2 GET -> Key eget
2040 Client 1 Node 2 - GET eget -> Result NULL --> Expected NULL
2041 Node 3 GET -> Key eget
2042 Client 1 Node 3 - GET eget -> Result lectus --> Expected NULL
2043
2044 Node 1 Remove! -> Key molestie
```

File - driver

```
2045 Client 1 Node 1 - REMOVE molestie -> Result lorem
2046 Client 1 Delay: 0.8441253982676603 seconds
2047 Node 1 GET -> Key tellus
2048 Client 0 Node 1 - GET tellus -> Result NULL --> Expected NULL
2049 Node 2 GET -> Key tellus
2050 Client 0 Node 2 - GET tellus -> Result est --> Expected NULL
2051 Node 3 GET -> Key tellus
2052 Client 0 Node 3 - GET tellus -> Result est --> Expected NULL
2053
2054 Node 1 Remove! -> Key nibh
2055 Client 0 Node 1 - REMOVE nibh -> Result fermentum
2056 Client 0 Delay: 0.9856714531845954 seconds
2057 Node 3 Updated Remove! -> Key eget
2058 Node 2 Updated Remove! -> Key tellus
2059 Node 2 Updated Remove! -> Key molestie
2060 Node 2 Updated Remove! -> Key nibh
2061 Node 3 Updated Remove! -> Key tellus
2062 Node 1 GET -> Key molestie
2063 Client 1 Node 1 - GET molestie -> Result NULL --> Expected NULL
2064 Node 2 GET -> Key molestie
2065 Client 1 Node 2 - GET molestie -> Result NULL --> Expected NULL
2066 Node 3 GET -> Key molestie
2067 Client 1 Node 3 - GET molestie -> Result lorem --> Expected NULL
2068
2069 Node 1 Remove! -> Key Nam
2070 Client 1 Node 1 - REMOVE Nam -> Result sit
2071 Client 1 Delay: 1.012965391472716 seconds
2072 Node 3 Updated Remove! -> Key molestie
2073 Node 1 GET -> Key nibh
2074 Client 0 Node 1 - GET nibh -> Result NULL --> Expected NULL
2075 Node 2 GET -> Key nibh
2076 Client 0 Node 2 - GET nibh -> Result NULL --> Expected NULL
2077 Node 3 GET -> Key nibh
2078 Client 0 Node 3 - GET nibh -> Result fermentum --> Expected NULL
2079
2080 Node 1 Remove! -> Key eleifend
2081 Client 0 Node 1 - REMOVE eleifend -> Result cursus
2082 Client 0 Delay: 1.1937886132424458 seconds
2083 Node 2 Updated Remove! -> Key Nam
2084 Node 3 Updated Remove! -> Key nibh
2085 Node 2 Updated Remove! -> Key eleifend
2086 Node 3 Updated Remove! -> Key eleifend
2087 Node 3 Updated Remove! -> Key Nam
2088 Node 1 GET -> Key Nam
2089 Client 1 Node 1 - GET Nam -> Result NULL --> Expected NULL
2090 Node 2 GET -> Key Nam
2091 Client 1 Node 2 - GET Nam -> Result NULL --> Expected NULL
2092 Node 3 GET -> Key Nam
2093 Client 1 Node 3 - GET Nam -> Result NULL --> Expected NULL
2094
2095 Node 1 GET -> Key eleifend
2096 Client 0 Node 1 - GET eleifend -> Result NULL --> Expected NULL
2097 Node 2 GET -> Key eleifend
2098 Client 0 Node 2 - GET eleifend -> Result NULL --> Expected NULL
2099 Node 3 GET -> Key eleifend
2100 Client 0 Node 3 - GET eleifend -> Result NULL --> Expected NULL
2101
2102 Node 1 Remove! -> Key Suspendisse
2103 Client 0 Node 1 - REMOVE Suspendisse -> Result NULL
2104 Client 0 Delay: 0.9782755464215929 seconds
2105 Node 1 GET -> Key Suspendisse
2106 Client 0 Node 1 - GET Suspendisse -> Result NULL --> Expected NULL
```

File - driver

```
2107 Node 2 GET -> Key Suspendisse
2108 Client 0 Node 2 - GET Suspendisse -> Result NULL --> Expected NULL
2109 Node 3 GET -> Key Suspendisse
2110 Client 0 Node 3 - GET Suspendisse -> Result NULL --> Expected NULL
2111
2112 Node 1 Remove! -> Key ut
2113 Client 0 Node 1 - REMOVE ut -> Result NULL
2114 Client 0 Delay: 0.5003503261493315 seconds
2115 Node 1 GET -> Key ut
2116 Client 0 Node 1 - GET ut -> Result NULL --> Expected NULL
2117 Node 2 GET -> Key ut
2118 Client 0 Node 2 - GET ut -> Result NULL --> Expected NULL
2119 Node 3 GET -> Key ut
2120 Client 0 Node 3 - GET ut -> Result NULL --> Expected NULL
2121
2122 Node 1 Remove! -> Key venenatis
2123 Client 0 Node 1 - REMOVE venenatis -> Result orci
2124 Client 0 Delay: 0.799785685211359 seconds
2125 Node 2 Updated Remove! -> Key venenatis
2126 Node 1 GET -> Key venenatis
2127 Client 0 Node 1 - GET venenatis -> Result NULL --> Expected NULL
2128 Node 2 GET -> Key venenatis
2129 Client 0 Node 2 - GET venenatis -> Result NULL --> Expected NULL
2130 Node 3 GET -> Key venenatis
2131 Client 0 Node 3 - GET venenatis -> Result orci --> Expected NULL
2132
2133 Node 1 Remove! -> Key Nunc
2134 Client 0 Node 1 - REMOVE Nunc -> Result NULL
2135 Client 0 Delay: 0.7473652955255745 seconds
2136 Node 3 Updated Remove! -> Key venenatis
2137 Node 1 GET -> Key Nunc
2138 Client 0 Node 1 - GET Nunc -> Result NULL --> Expected NULL
2139 Node 2 GET -> Key Nunc
2140 Client 0 Node 2 - GET Nunc -> Result NULL --> Expected NULL
2141 Node 3 GET -> Key Nunc
2142 Client 0 Node 3 - GET Nunc -> Result NULL --> Expected NULL
2143
2144 Killed Client 1 with eventual consistency
2145 Killed Client 2 with eventual consistency
2146 Killed KV Node 1 with eventual consistency...
2147 Killed KV Node 2 with eventual consistency...
2148 Killed KV Node 3 with eventual consistency...
2149
2150 Process finished with exit code 0
2151
```