

Relatório da Atividade 4: Raft

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Resumo

Esse relatório documenta um trabalho com o protocolo Raft para consenso distribuído. Não será trabalhado com *log replication*.

Index Terms

Raft, Golang, sistema distribuído

I. IMPLEMENTAÇÃO

A. Ao receber um *AppendEntry* (*heartbeat*)

Subsection text here.

- 1) *Follower*:
- 2) *Candidate*:
- 3) *Leader*:

B. Ao receber um *RequestVote*

Subsubsection text here.

- 1) *Follower*:
- 2) *Candidate*:
- 3) *Leader*:

C. Ao receber um *Reply*

Subsubsection text here.

- 1) *Follower*:
- 2) *Candidate*:
- 3) *Leader*:

II. RESULTADOS E CONCLUSÕES

The conclusion goes here.


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isabelle@isabelle-Inspiron-5448: ~/Graduacao/hirata-juliana-CES-27/Lab4/src/labRaft/run 78x
2019/10/07 10:28:44 [CANDIDATE] Run Logic.
2019/10/07 10:28:44 [CANDIDATE] Running for term '1'.
2019/10/07 10:28:44 [CANDIDATE] Vote granted by 'localhost:3002'.
2019/10/07 10:28:44 [CANDIDATE] VoteCount: 2
2019/10/07 10:28:46 [CANDIDATE] Vote denied to 'localhost:3004' for term '1'.
2019/10/07 10:28:46 [CANDIDATE] Run Logic.
2019/10/07 10:28:46 [CANDIDATE] Running for term '2'.
2019/10/07 10:28:46 [CANDIDATE] Vote granted by 'localhost:3003'.
2019/10/07 10:28:46 [CANDIDATE] VoteCount: 2
2019/10/07 10:28:46 [CANDIDATE] Vote granted by 'localhost:3002'.
2019/10/07 10:28:46 [CANDIDATE] VoteCount: 3
2019/10/07 10:28:46 [CANDIDATE] Becoming leader.
2019/10/07 10:28:46 [LEADER] Run Logic.
^Csignal: interrupt
isabelle@isabelle-Inspiron-5448 ~/Graduacao/hirata-juliana-CES-27/Lab4/src/L

isabelle@isabelle-Inspiron-5448: ~/Graduacao/hirata-juliana-CES-27/Lab4/src/labRaft/run 78x
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:59 [FOLLOWER] Update old term '4' to new term '5' from 'localhost:3004'.
2019/10/07 10:28:59 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:59 [FOLLOWER] Vote accepted to 'localhost:3004' for term '5'.
2019/10/07 10:28:59 [FOLLOWER] Run Logic.
2019/10/07 10:29:02 [FOLLOWER] Update old term '5' to new term '6' from 'localhost:3004'.
2019/10/07 10:29:02 [FOLLOWER] Resetting election timeout.
2019/10/07 10:29:02 [FOLLOWER] Vote accepted to 'localhost:3004' for term '6'.
2019/10/07 10:29:02 [FOLLOWER] Run Logic.

isabelle@isabelle-Inspiron-5448: ~/Graduacao/hirata-juliana-CES-27/Lab4/src/labRaft/run 78x
2019/10/07 10:28:53 [FOLLOWER] Accept AppendEntry from 'localhost:3005'.
2019/10/07 10:28:53 [FOLLOWER] Run Logic.
2019/10/07 10:28:54 [FOLLOWER] Election timeout.
2019/10/07 10:28:54 [CANDIDATE] Run Logic.
2019/10/07 10:28:54 [CANDIDATE] Running for term '4'.
2019/10/07 10:28:54 [CANDIDATE] Vote granted by 'localhost:3004'.
2019/10/07 10:28:54 [CANDIDATE] VoteCount: 2
2019/10/07 10:28:54 [CANDIDATE] Vote granted by 'localhost:3002'.
2019/10/07 10:28:54 [CANDIDATE] VoteCount: 3
2019/10/07 10:28:54 [CANDIDATE] Becoming leader.
2019/10/07 10:28:54 [LEADER] Run Logic.
^Csignal: interrupt
isabelle@isabelle-Inspiron-5448 ~/Graduacao/hirata-juliana-CES-27/Lab4/src/L

isabelle@isabelle-Inspiron-5448: ~/Graduacao/hirata-juliana-CES-27/Lab4/src/labRaft/run 83x26
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:56 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:56 [FOLLOWER] Accept AppendEntry from 'localhost:3003'.
2019/10/07 10:28:56 [FOLLOWER] Run Logic.
2019/10/07 10:28:59 [FOLLOWER] Election timeout.
2019/10/07 10:28:59 [CANDIDATE] Run Logic.
2019/10/07 10:28:59 [CANDIDATE] Running for term '5'.
2019/10/07 10:28:59 [CANDIDATE] Vote granted by 'localhost:3002'.
2019/10/07 10:28:59 [CANDIDATE] VoteCount: 2
2019/10/07 10:29:02 [CANDIDATE] Election timeout.
2019/10/07 10:29:02 [CANDIDATE] Run Logic.
2019/10/07 10:29:02 [CANDIDATE] Running for term '6'.
2019/10/07 10:29:02 [CANDIDATE] Vote granted by 'localhost:3002'.
2019/10/07 10:29:02 [CANDIDATE] VoteCount: 2

isabelle@isabelle-Inspiron-5448: ~/Graduacao/hirata-juliana-CES-27/Lab4/src/labRaft/run 83x20
2019/10/07 10:28:47 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:47 [FOLLOWER] Accept AppendEntry from 'localhost:3001'.
2019/10/07 10:28:47 [FOLLOWER] Run Logic.
2019/10/07 10:28:47 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:47 [FOLLOWER] Accept AppendEntry from 'localhost:3001'.
2019/10/07 10:28:47 [FOLLOWER] Run Logic.
2019/10/07 10:28:47 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:47 [FOLLOWER] Accept AppendEntry from 'localhost:3001'.
2019/10/07 10:28:47 [FOLLOWER] Run Logic.
2019/10/07 10:28:47 [FOLLOWER] Resetting election timeout.
2019/10/07 10:28:47 [FOLLOWER] Accept AppendEntry from 'localhost:3001'.
2019/10/07 10:28:47 [FOLLOWER] Run Logic.
2019/10/07 10:28:51 [FOLLOWER] Election timeout.
2019/10/07 10:28:51 [CANDIDATE] Run Logic.
2019/10/07 10:28:51 [CANDIDATE] Running for term '3'.
2019/10/07 10:28:51 [CANDIDATE] Vote granted by 'localhost:3003'.
2019/10/07 10:28:51 [CANDIDATE] VoteCount: 2
2019/10/07 10:28:51 [CANDIDATE] Vote granted by 'localhost:3004'.
2019/10/07 10:28:51 [CANDIDATE] VoteCount: 3
2019/10/07 10:28:51 [CANDIDATE] Becoming leader.
2019/10/07 10:28:51 [LEADER] Run Logic.
^Csignal: interrupt
isabelle@isabelle-Inspiron-5448 ~/Graduacao/hirata-juliana-CES-27/Lab4/src/labRaft

```

Figura 5. Funcionamento após a falha no terceiro *leader*. Note que o sistema não consegue mais decidir por um novo *leader*.