CES-27 Distributed Processing
1th Activity
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Task 1

It was implemented a Lamport's *Scalar Logic Clock* simulation. The implementation was made in Go and it can be seen on the Repository[1].

Suggested Test Case

As It was suggested, it was conducted a test with 3 terminal windows, on each one was opened one task of the program as shown in the Code 1.

The test was made according to the model represented on Figure 1. The results can be seen on the outputs on the

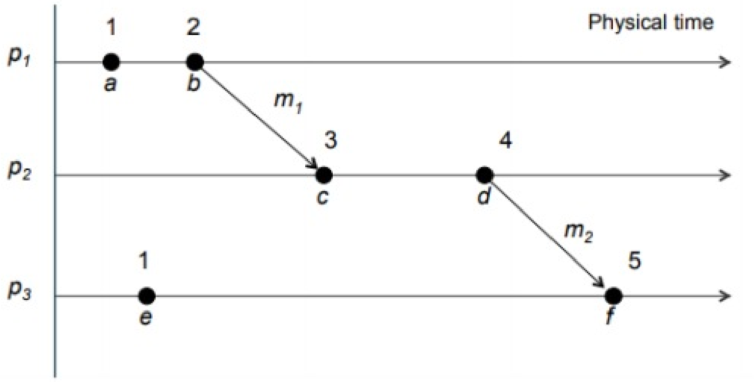


Figure 1: Model representing the execution of Task 1 example test case

```
Terminal 1: go run Process.go 1 :10004 :10003 :10002
Terminal 2: go run Process.go 2 :10004 :10003 :10002
Terminal 3: go run Process.go 3 :10004 :10003 :10002
```

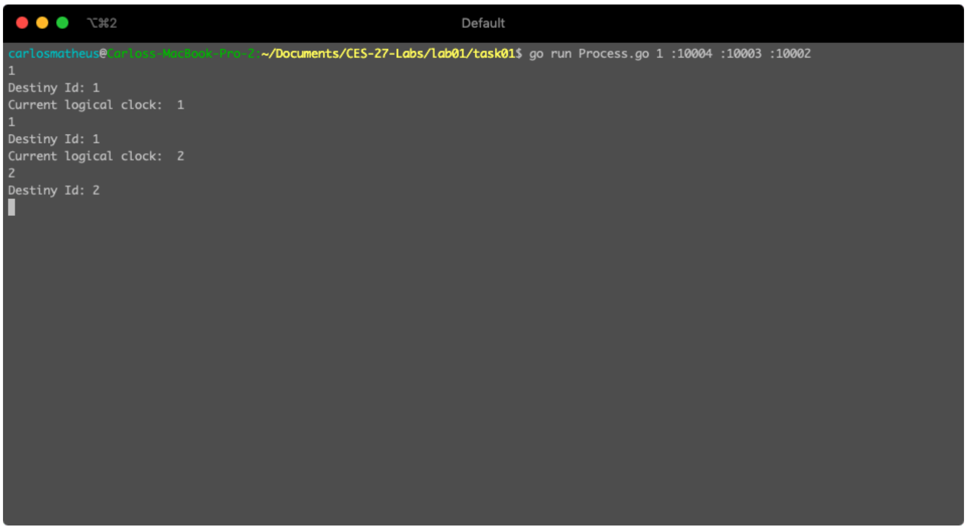
Code 1: Code that was run on each of the 3 terminal window on the execution of Task 1 example test case

Built Test Case

Research

- Explore the *Stem Torproject*[1] website.
- Do *Stem Torproject* tutorials.
- Look for other soucers about Tor Python libraries, including *Youtube* tutorials.

[1] https://github.com/CarlosMatheus/CES-27/tree/master/lab01



```
carlosmatheus@Carloss-MacBook-Pro-2:~/Documents/CES-27-Labs/lab01/task01$ go run Process.go 1 :10004 :10003 :10002
1
Destiny Id: 1
Current logical clock:  1
1
Destiny Id: 1
Current logical clock:  2
2
Destiny Id: 2
```

Figure 2: Window 1 after execution of Task 1 example test case

Implementation

Have a Python application that includes at least the following items:

- Establish Tor internet connection with Python.
- Fetch websites with Tor connection.
- Create message system between two points with Tor connection.

Tor Android App

This section is extra to this project. Once the first part related to the Python application is done, the focus will be to try to make the same kind of application to run on an Android.

Research

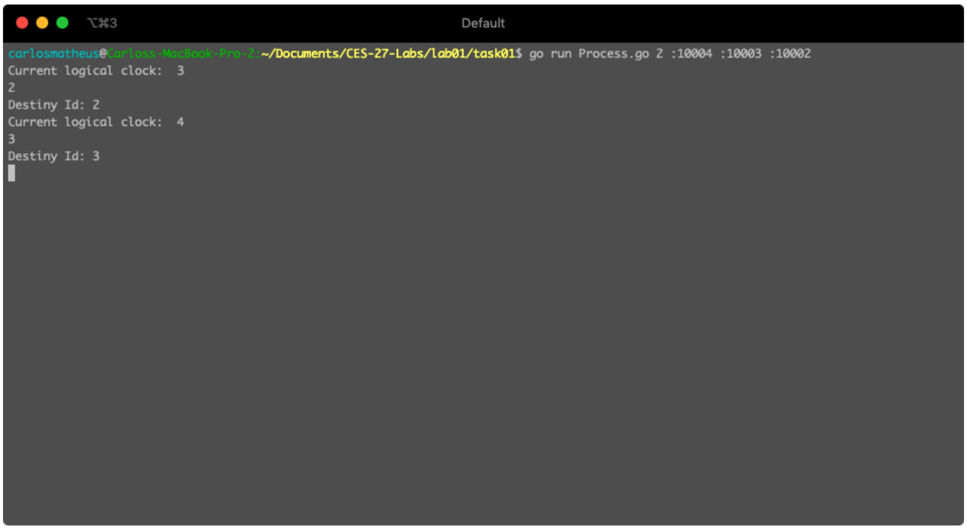
- Study *OrbotHelper* class in *Stem Torproject*[1].

Implementation

- Adapt the Python application to work on Android.

Initial Schedule

- March: Study on Python Tor Libraries.
- April: Develop Python app.
- May: Study Android Tor app Library. Start Tor app implementation.
- June: Finish Tor app implementation. Write the report. Make the project presentation.

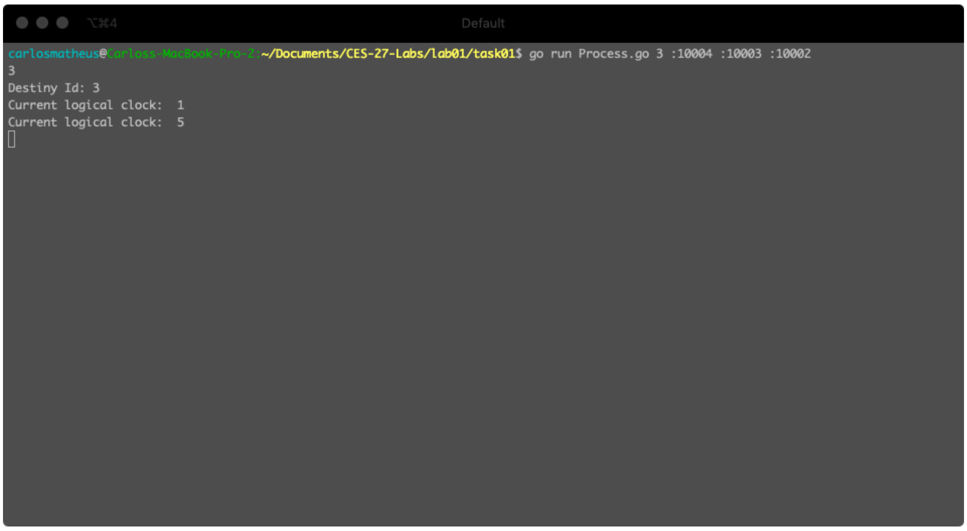


```
carlosmatheus@Carloss-MacBook-Pro-2:~/Documents/CES-27-Labs/lab01/task01$ go run Process.go 2 :10004 :10003 :10002
Current logical clock:  3
2
Destiny Id: 2
Current logical clock:  4
3
Destiny Id: 3
```

Figure 3: Window 2 after execution of Task 1 example test case

References

[1] Stem: a python controller library for tor. https://stem.torproject.org/. Accessed: 2019-03-15.



```
carlosmatheus@Carloss-MacBook-Pro-2:~/Documents/CES-27-Labs/lab01/task01$ go run Process.go 3 :10004 :10003 :10002
3
Destiny Id: 3
Current logical clock:  1
Current logical clock:  5
```

Figure 4: Window 3 after execution of Task 1 example test case