Performance Analysis Report for Crawler, Query Processor and Trends

Specs:

Processor	Intel(R) Core(TM) i5-3210M CPU @ 2.50GHz 2.50 GHz
Installed RAM	6.00 GB (5.86 GB usable)

Crawler:

Run #1:

Minimum URLs: 1000
Number of Threads: 5
Interruption Handling: YES

Time for a minimum of 1000 links to be reached: 611 seconds

```
https://abcnews.go.com/Entertainment
https://www.nbcuniversal.com/node/10231
https://legal.thomsonreuters.com/en/products/practical-law/plans-pricing#government
https://www.nbcuniversal.com/article/our-facilities#main-content
https://www.bbc.co.uk/news/newsbeat-52395771
https://www.nbcuniversal.com/article/syfys-magicians-go-green-behind-scenes
https://www.youtube.com/user/ThomsonReutersLegal
https://www.theguardian.com/us-news/2020/jun/02/police-criticized-heavy-handed-response-peaceful-protests-across-us
Stopping critieria is met in the current thread after inserting last set of links into the database at time = 611. Returning to the caller function
```

✅ Showing rows 0 - 24 (1003 total, Query took 0.0024 seconds.)

SELECT * FROM `links`

Notice: The code then begins to pop function calls from the recursion stack. (this should be the only drawback of my crawler's design, however if the user chooses to terminate the program it should be fine as the number of links in the database won't decrease or increase because the stopping criteria is already reached)

Time for the first thread to finish: 835 seconds

```
Thread 15 took 835 seconds to complete.
```

Time for the final thread and whole program to terminate: 1164 seconds

```
Stopping criteria is met at time = 1164 seconds in thread 16. Returning to caller function.
Thread 16 took 1164 seconds to complete.
```

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Run #2:

Minimum URLs: 1000
Number of Threads: 10
Interruption Handling: YES

Time for a minimum of 1000 links to be reached: 496 seconds

```
Stopping critieria is met in the current thread after inserting last set of links into the database at time = 496. Returning to the caller function.
Thread 17 took 496 seconds to complete.
Stopping critieria is met in the current thread after inserting last set of links into the database at time = 509. Returning to the caller function.
https://linkedin.com/help/linkedin/answer/34593?lang=en&trk=d_checkpoint_lg_consumerLogin_ft_community_guidelines
Stopping critieria is met in the current thread after inserting last set of links into the database at time = 521. Returning to the caller function.
Thread 15 took 521 seconds to complete.
Stopping criteria is met at time = 539 seconds in thread 20. Returning to caller function.
https://help.nytimes.com/hc/en-us/articles/115014892108-Privacy-policy#11
Stopping critieria is met in the current thread after inserting last set of links into the database at time = 560. Returning to the caller function.
Thread 18 took 560 seconds to complete.
Stopping criteria is met at time = 568 seconds in thread 22. Returning to caller function.
https://reuters.zendesk.com/hc/en-us/articles/215713503-Where-can-I-obtain-past-archived-news-articles-/subscription.html
Stopping criteria is met at time = 569 seconds in thread 22. Returning to caller function.
https://reuters.zendesk.com/hc/en-us/profiles/17682694-Leo
Stopping criteria is met at time = 573 seconds in thread 23. Returning to caller function.
Thread 23 took 574 seconds to complete.
Stopping criteria is met at time = 575 seconds in thread 16. Returning to caller function.
Thread 16 took 575 seconds to complete.
Stopping criteria is met at time = 585 seconds in thread 22. Returning to caller function.
https://plus.reuters.com/en.html
Stopping criteria is met at time = 587 seconds in thread 20. Returning to caller function.
https://help.nytimes.com/hc/en-us/articles/115014893428-Terms-of-service
Stopping criteria is met at time = 588 seconds in thread 21. Returning to caller function.
Thread 21 took 588 seconds to complete.
Stopping criteria is met at time = 606 seconds in thread 20. Returning to caller function.
Thread 20 took 606 seconds to complete.
Stopping criteria is met at time = 615 seconds in thread 22. Returning to caller function.
https://ru.reuters.com
Stopping criteria is met at time = 638 seconds in thread 19. Returning to caller function.
Thread 19 took 638 seconds to complete.
Stopping criteria is met at time = 644 seconds in thread 22. Returning to caller function.
Thread 22 took 644 seconds to complete.
Stopping criteria is met at time = 671 seconds in thread 14. Returning to caller function.
```

✔ Showing rows 0 - 24 (1120 total, Query took 0.0011 seconds.)

SELECT * FROM `links`

Time for the first thread to finish: 496 seconds

```
Thread 17 took 496 seconds to complete.
```

Time for the final thread and whole program to terminate: 671 seconds

```
Stopping criteria is met at time = 671 seconds in thread 14. Returning to caller function.
Thread 14 took 671 seconds to complete.
```

Run #3:

Minimum URLs: 1000
Number of Threads: 10
Interruption Handling: NO

Time for a minimum of 1000 links to be reached: 281 seconds

```
https://www.telegraph.co.uk/travel/destinations/europe/france/
Stopping critieria is met in the current thread after inserting last set of links into the database at time = 281. Returning to the caller function.
```

Time for the first thread to finish: 407 seconds

Stopping criteria is met at time = 407 seconds in thread 15. Returning to caller function.
Thread 15 took 407 seconds to complete.

Time for the final thread and whole program to terminate: 557 seconds

\<terminated\> Crawler [Java Application] C:\Program Files\Java\jdk-14.0.1\bin\javaw.exe (Jun 3, 2020, 9:43:34 PM – 9:52:53 PM)
Stopping criteria is met at time = 500 seconds in thread 18. Returning to caller function.
Thread 18 took 500 seconds to complete.
Stopping criteria is met at time = 523 seconds in thread 16. Returning to caller function.
Thread 16 took 523 seconds to complete.
Stopping criteria is met at time = 557 seconds in thread 14. Returning to caller function.
Thread 14 took 557 seconds to complete.

Trends:

Time for adding nonexistent or existent trends: ~900 **milli**seconds

\<terminated\> Trends [Java Application] C:\Program Files\Java\jdk
Connected to the database
Added trend from given query in 948 milliseconds.

Query Processor:

Time for processing a single query: 73 **milli**seconds

\<terminated\> QueryProcessor [Java Application] C:\Proc
Processed given query in 73 milliseconds.

Total time: Time for processing a single query + Time for adding nonexistent or existent trends + Ranker's Duration