

cassandra.yaml upgrade

[cassandra.yaml](#) is the primary configuration file for Apache Cassandra nodes ([YAML](#)). One of the pain points in the Cassandra upgrade process is migrating changes that have been made to `cassandra.yaml`, while also pulling in any option additions or removals from the new `cassandra.yaml` defaults.

Your task is to write a program to handle that upgrade process as automatically as possible for users. Use your own discretion for designing how users will interface with the script. You may use whatever languages, technologies and/or libraries you feel are appropriate (python or clojure preferred, unless you can make a good case for choosing a different language)

Be sure to look at the examples of real `cassandra.yaml` files at the bottom of this problem. You'll note that these files contain all possible options, but some are commented out for the purposes of using defaults.

This problem description leaves certain questions purposefully unanswered, but is meant to be more involved than simple set math. You do not need to retain comments in the `yaml` file, but extra bonus points if you can. Feel free to use your best judgement to answer what you can, or start a discussion with your interviewer if needed.

Contrived Example

These examples are subsets of what you might see in real `cassandra.yaml` files. In this scenario we're currently running version 13.0, have previously modified the settings in `cassandra.yaml`, and would now like to upgrade to 14.0.

Currently installed `cassandra.yaml`, version 13.0:

```
cluster_name: "My Cluster"
num_tokens: 256
data_file_directories:
  - /my/cassandra/data/
memtable_flush_queue_size: 4

#my_default_property: "foo"
my_uncommented_property: "baz"
```

`cassandra.yaml` shipped with version 14.0:

```
cluster_name: "Test Cluster"
num_tokens: 256
```

```
data_file_directories:
  - /var/lib/cassandra/data
rpc_server_type: sync

#my_default_property: "foo"
#my_uncommented_property: "bar"
```

Real Examples

Some examples of real cassandra.yaml files/defaults from Cassandra releases:

- <https://github.com/apache/cassandra/blob/cassandra-2.0.3/conf/cassandra.yaml>
- <https://github.com/apache/cassandra/blob/cassandra-1.2.12/conf/cassandra.yaml>