

Tutorial 5

In this tutorial the DNS server from last week will be extended by a maintenance mode. When a client request takes place and the server is in maintenance mode then the request should wait for 1 sec. and if the server is then still in maintenance mode then an error should be returned; otherwise the request can be served. We will use condition variables to efficiently implement the waiting.

- 0.) Implement the function `DNSServer::startMaintenance(int ts)` that takes the estimated time for the maintenance, waits until no client request is served and then enters maintenance mode for the specified amount of time.
- 1.) Modify `DNSServer::getDNS(...)` so that a client request first checks if the server is in maintenance mode. If this is the case then the request should wait for up to 1 sec. and return with an error message if the server is then still in maintenance mode.

Please finish the implementation until next week (week of 27/11/2016).