Token Problem

Problem:

Write a server that can generate and assign random tokens within a pool and release them after some time. The following endpoints should work on your server:

1. Endpoint to generate unique tokens in the pool.
2. Endpoint to assign unique token. On hitting this endpoint, the server should assign an available random token from the pool and should not serve the same token again until it's freed or unblocked. If no free token is available in pool, it should serve
404.
3. Endpoint to unblock the token in the pool. The unblocked token can then be served in (2)
4. Endpoint to delete the token in the pool. Deleted token should be removed from the pool.
5. Endpoint to keep the tokens alive. All tokens should receive this endpoint within 5 minutes. If a token doesn't receive a keep-alive in the last 5 mins, it should be deleted from the pool and not be served again.
6. By default each token will be freed/released automatically after 60s of use. To keep the token allocated to himself, the client should request keep-alive (5) on same token within the 60s.

Enforcement:

1. No operation should result in the iteration of a whole set of tokens; i.e, complexity cannot be O(n).
2. You're free to use any programming stack of your choice
3. The solution should not be hard coded for in any way, eg: max # of tokens that can be generated can be updated during the Application Startup
4. There could be more than one instance running of the app running at the same time and everything should continue to work.

Submissions:

1. Push the Code to GitHub - your personal repo works & make it public OR invite (hrishikesh.bihani@idfy.com, shivanshu.kumar@idfy.com, mansi.udeshi@idfy.com)
2. Add an Service Design Diagram - hand drawn works
3. Upload a sample video/screenshots which shows the cURL request/response with all the operations