The following should be done in Ruby on Rails as the target framework.

Implement an API for Conway's Game of Life. Conway's Game of Life - Wikipedia

The API should have implementations for at least the following:

1.   Allows uploading a new board state, returns id of board

2.   Get next state for board, returns next state

3.   Gets x number of states away for board

4.   Gets final state for board. If board doesn't go to conclusion after x number of attempts, returns error

The service you write should be able to restart/crash/etc... but retain the state of the boards.

The code you write should be production ready. You don't need to implement any authentication/authorization. Be prepared to show how your code meets production ready requirements.

This may take up to 4 – 5 hours to complete. Come prepared to talk about your architecture and coding decisions.