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GitHub link: <https://github.com/WarrenFerrell/CodeAFriend>

Title: Code-A-Friend

Description: A website for submitting and voting on code samples that demonstrate implementations of various common algorithms. Will only support python at first.

Actors: Users, Admin

Functionality:

1. Users can sign up via an OAuth2 provider
2. Users can login via an OAuth2 provider
3. Users can type code into a box to make a script
4. Users can submit scripts
5. Users can receive the output from a submitted script
6. Users can see how long a script ran for
7. Users can see how much memory a script used
8. Users can save scripts they have written
9. Users can view scripts they have saved
10. Users can post a problem to be solved
11. Users can add tests of expected output from specified inputs for a problem
12. Users can configure the max runtime for a single script execution on a problem
13. Users can configure the max memory for a single script execution on a problem
14. Users can propose a script as solving a problem
15. Scripts will be accepted as a solution if it passes all provided tests for a problem
16. Users can vote on a script as being a good solution to the problem
17. Users can see all scripts that correctly solve a problem
18. Users can post an algorithm
19. Users can tag a script as implementing an algorithm
20. Users can vote on a script as being a good implementation of an algorithm
21. Admins can login
22. Admin can view all users
23. Admins can delete problems
24. Admins can delete algorithms

Stretch Functionality:

1. Support more languages than just python
2. User can submit illustrations that show how an algorithm works
3. Admins can ban hammer a user for submitting inappropriate content
4. Coding box has syntax highlighting
5. User can collaborate on a script with another user