

Advanced programming – Assignment 4

Design and implementation

We created the loop to hold both a tuple list for shortcode and emoji and a map that contained aliases for shortcode. Around this we based our implementation. All the auxiliary functions we wrote use more or less those structures.

Assessment of the code

We tried to assess as much as possible for all the implemented functions, but did all the test in the console. All the test we did passed. We didn't write any test suite as we tried to complete the code first.

Completeness

The code is not completed, we tried our best to implement most of the functions, but we got stuck and run out of time. The only completed methods are "start", "stop", "delete", "new_shortcode" and "alias". We also tried to implement lookup, but it's not completed. In the code there are functions that we wrote to complete lookup.

Correctness

There are bugs in the code, and some functions are not implemented. We tested in the console all the other functions that are implemented, but we didn't write any test suite as we run out of time. From the online tool, only 2 tests passed as after that we received "FATAL TEST FAILURE;"

Efficiency

We don't know the exact efficiency of the code, we tried to implement it in the most efficient way, but we can't figure out exactly how fast/good it is. We think that the overall space complexity is $O(n^2)$.

Maintainability

The code is in good shape, all the repetitive code was transformed into functions, so instead of having a lot of copy pasted code, there are functions, that are easy to maintain and modify. The code does not contain comments.

Other

