Purpose

`hblock(1)` is a shell script, available on homebrew, that blocks ads, beacons and malware sites. It does this by editing `/etc/hosts` and setting the IP address for such sites to 0.0.0.0. The issue is that hblock sometimes adds sites to /etc/hosts that are needed.

This executable fixes such issues by adding good DNS hosts to the exclusion list (`/etc/hblock/allow.list`) and removing the corresponding entry from `/etc/hosts`. It will also optionally flush the DNS cache and restart the `mDNSResponder` daemon.

Versions

There are two versions of the solution:

- a bash shell script (`fix-hostfiles.sh`) located in `src/fix-hosts-bash`, and a
- C program (`fix-hostfiles.c`) located in `src/fix-hosts-c` that does the same.

The shell script does all that needs doing and does so in a lightweight manner. The motivation for the C version was twofold:

- To measure the performance difference between the two solutions, and
- To see how easy or difficult it would be for a C program to perform the same functions.

My a priori predictions are:

- the executable will be substantially less performant, mainly due to the overhead of instantiating the program — and the programs it would in turn spawn — and
- that the C program would be harder to concoct since I don't think that there are library functions to perform all the stuff I get for free in shell land (e.g. `sed(1)`, `grep(1)` and `dscacheutil(1)`), but I knew I'd learn something along the way.

Design Specs and man pages

There are design specs for each solution.

The associated man pages (the man pages for each solution have minor but meaningful differences) may do a better job of explaining the final products.

TODO

- ☒ Write the design spec for the C implementation
- ☒ Create a separate MD file for hblock allow list with hard link between both project dirs

- ☐ Update makefile in config dir
- ☐ Update skell.c in config dir
- ☒ Update the way VSC formats code: it's breaking up long lines
- ☐ Update bash script with updates and lessons learned from this C project.