Instructions

In various cases, it is useful to determine if the current directory or some parent of it contains a particular file. For example, a repository using the Git version control system has a .git directory at its root, and sometimes we want to know if we are in a Git repository (and, if so, where the root it is).

Similarly, a project using the Gradle build tool usually has a gradlew shell script at its root, and to build we need to find and run that shell script.

For this drill, write a shell script called find-up.sh that takes file names to look for as its arguments, and does the following:

- 1. If no arguments are provided ("\$1" is empty), exit with an error message on stderr and an exit code of 2.
- 2. Print the relative path (using ./..) from the current directory for the first occurrence of any file on the command line and exit with code 0.
- 3. If no parent of the current directory contains any of the files, then exit with code 1 and produce no output.

So, if the user runs find-up.sh .git and the current directory contains a file called .git, it should print ./.git. If the parent directory contains .git, it should print ../.git, and ../../.git for the grandparent directory, and so on.

If multiple files are passed, then the first directory to contain any file is selected; for ./find-up.sh .git .hg, if the parent directory contains .hg and the grandparent .git, it should print ../.hg.

Use the -e operator of test or [to test if a file exists.

To see if you have found the root directory, use -ef; if you have built up a path in the variable dir, test "\$dir" -ef / will test if "\$dir" refers to the root directory. If it does, search that directory but no farther.

The attached tests will help you ensure your script's correctness.