At your convenience, please deliver to us a git repository containing a small project which implements three functions in Python:

- number_to_words(), which takes as an argument a string representing a US phone number and which outputs a string which has transformed part or all of the phone number into a single "wordified" phone number that can be typed on a US telephone (for example, a valid output of number_to_words("1-800-724-6837") could be "1-800-PAINTER"). If you find it makes things simpler, feel free to constrain this function to only output "wordifications" in English.

- words_to_number(), which does the reverse of the above function (for example, the output of words_to_number("1-800-PAINTER") should be "1-800-724-6837")

- all_wordifications(), which outputs all possible combinations of numbers and English words in a phone number.

These functions can leverage Python library functions, helper functions you author, or data stored in .py files or other files in your submission.

In addition to your final solution, we'll also be taking a look at how you use version control when doing programming, so please submit to us a git repository which you'd feel comfortable sharing with a colleague. We will read your commit messages, briefly examine the history of the repository, etc. You can deliver the git repository however you see fit.

If you write any files or functions which test these three functions, please include them in your repository as well.

This exercise is "open-book", so take the time you need to craft a careful and correct solution. Please feel free to use whatever tools, techniques, or materials you care to. Incorporating code from elsewhere is fine, but please credit the author(s).

If you have any questions about the exercise or would like further clarification on the requirements feel free to reach out to me!