**HW1 Pseudocode**

Cache = dynamically allocated hash table of a given fixed size (1D array of char\* pointers which should be initially null)

If collisions, replace existing word

No square brackets allowed

Detect square brackets:

grep -E ‘\[|\]‘ hw1.c

No use of malloc (only calloc and realloc)

Command line arguments: size of cache (use atoi or strtol to convert from string to integer), text file name (words have at least 2 alphanumeric characters, use isalnum() function)

Use 128 byte dynamically allocated buffer (char array)

Hash function: sum of each ASCII character in given word saved in int variable and then mod over cache array size

Output:

Process input file and write for example:

Word “Once” ==> 15 (calloc)

Upon finishing, then show contents of cache (non empty values only) for example:

Cache index 0 ==> “on”

Error handling:

Report error message to stderr if incorrect command-line arguments given (use perror or fprintf), only use perror if errno global variable set

Error message format is the following: ERROR: <erorr-text-here>

#ifdef DEBUG\_MODE

// debugging code here

#endif

gcc -Wall -Werror -D DEBUG\_MODE hw1.c // compiles with debug mode

Disable buffered output to stdout with the following (only for Submitty for grading as it slows down program): setvbuf(stdout, NULL, \_IONBF, 0)