

COMP1521 Week 8

Welcome!!!

Questions

- q1-6
- q9-16

Q2

```
int main(int argc, char *argv[]) {
    if (argc == 1) {
        // error
        fprintf(stream: stderr, format: "Usage: %s <pattern> <file>...\n", argv[0]);
    }
    if (argc == 2) {
        // process stdin
        process_file(file: stdin);
    }
    if (argc > 2) {
        // process each arg as a file
        // argv[0] == prog name
        // argv[1] == pattern
        // argv[2+] == files
        for (int i = 2; i < argc; i++) {
            FILE *input_file = fopen(filename: argv[i], modes: "r");
            if (input_file == NULL) {
                // error
                fprintf(stream: stderr, format: "Error opening file %s\n", argv[i]);
                exit(status: 1);
            }
            process_file(file: input_file);
            fclose(stream: input_file);
        }
    }
}
```



```
1  #include <stdio.h>
2  #include <stdlib.h>
3  #include <string.h>
4
5  void process_file(FILE *file, char *target) {
6      char buffer[4096];
7
8      while (fgets(s: buffer, n: 4096, stream: file) != NULL) {
9          if (strstr(haystack: buffer, needle: target) != NULL) {
10             // found the string
11             fputs(s: buffer, stream: stdout);
12         }
13     }
14 }
```



// error

fprintf(stream: stderr, format: "Error opening file %s %d\n", argv[i], errno);

exit(status: 1);

}