./prog -i <input\_file> -o <output\_file> -p <operation> -t <encryption\_type> -b <blacklist\_file>

* -i: Path to the input file (required).
* -o: Path to the output file (required).
* -p: Operation to perform (enc, dec, or censor) (required).
* -t: Encryption type (0, 1, 2, 3) (only required for encryption or decryption operations).
* -b: Path to the blacklist file (only required for the censor operation).

./prog -i encrypted.txt -o decrypted.txt -p dec -t 2

* Operation: Decrypt (dec).
* Input file: encrypted.txt.
* Output file: decrypted.txt.
* Encryption type: 2 (ENC\_TYPE\_SWAP\_3).

./prog –h

* argc = 2 (program name + -h flag)
* This is valid.

Breakdown of argc and argv:

* argc: 8 (total number of arguments, including the program name).
* argv:
  + argv[0]: "./prog" (the program name).
  + argv[1]: "-i" (flag for input file).
  + argv[2]: "input.txt" (input file path).
  + argv[3]: "-o" (flag for output file).
  + argv[4]: "output.txt" (output file path).
  + argv[5]: "-p" (flag for operation).
  + argv[6]: "enc" (operation type).
  + argv[7]: "-t" (flag for encryption type).
  + argv[8]: "1" (encryption type).

argv -> [ptr0] --> "./prog\0"

[ptr1] --> "-i\0"

[ptr2] --> "input.txt\0"

[ptr3] --> "-o\0"

[ptr4] --> "output.txt\0"

[ptr5] --> "-p\0"

[ptr6] --> "enc\0"

[ptr7] --> "-t\0"

[ptr8] --> "1\0"

[ptr9] --> NULL