

Assignment 0: Dog – Design Document

Goal: Replicate the function of 'cat' using the command 'dog'.

Design:

3 cases to consider:

Case A – one or multiple arguments after dog:

- For `int i = 0; i < argc; ++i`
- Open `argv[i]`; If `argv[i]` does not exist, output `perror()` and skip the file
- LOOP: Read `argv[i]` for every 32KiB
 - Write the data read from `argv[i]` to `stdout`
 - Reset the buffer
- After the loop, close the file `argv[i]`
- Goto the next file

Case B – '-' argument after dog:

- Open up `stdin` and await for the user input
- When the user hits return, read the input of the user
- The input should be read into a buffer of 32KiB in a looping fashion:

```
for(bytes=read(0, buffer, bufferSize; bytes > 0; bytes=read())) {
    write(1, buffer, bufferSize);
    Reset buffer/Empty buffer
}
```
- Watch out for the EOF character: if EOF is given, close the `stdin`
- Continue reading the reset of the arguments after '-' is finished

Case C – no argument is given after dog:

- Open up `stdin` and await for the user input
- When the user hits return, read the input(s) with a buffer
 - Write buffer out to the `stdout`
 - Reset buffer and loop back to `read()` until EOF