Design

Zhijun Yang
CruzID: zyang100

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1 Goal

The goal of this program is to create a program that is similar to *cat* command, and our programming assignment is *dog,* which is to copy data from each file and display the content. The program should print the data to standard output.

2 Assumptions

I think in order to complete this program, it is necessary to use open(), read(), write(), and close() for system calls.
If the files are existed, then dog should correctly copy all of the data to standard output. However, if no files are specified, then it is running a loop until it runs out of input.

3 Design

My approach is to check for valid inputs, and loop each input file read and write it as standard output. If the user does not specify the files or with (-), then it will copy what the user's input to standard output. However, if there is an error with a file, the program prints out an error message and skip the file. After all, close the file.

Pseudocode

```
define buffer size
check for inputs
if no inputs
        ask the user to input and program will show standard output
for file ← 1 to argc
        if '-' exists
        ask the user to input and program will show standard output
        open the file
        if file does not exist
                error

        while n=(read(file,buffer,buf_size)>0))
                write the content
        if n < 0
```

warn(3)
close the file
return 0