

Design Document: Dog

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1) Goals

The goal of this program is to perform functionality similar to that of the cat function in terminal. Dog will read the files entered and print out the contents of each file. Dog needs to be able to handle reading and out putting the contents of multiple files to the command line.

Dog needs to be able to handle dashes (-), process files one at a time, needs to process binary, and have error messages.

2) Design

Part 1: Handling and Reading the arguments

Part 2: Process each argument and print results

2.1 Handling and Reading the arguments

In this part of the program, we initialize our variables. We define our argument count, and we set up an array to hold the arguments.

Reminder: import needed libraries for allowed library functions

Input: Argument count: arg_count

Input: Array of arguments: arg

Output: contents of the files: std_out

```
1- int main (int arg_count, char *arg[ ]) *from stack overflow*
2- arg_count <- cmd line
3- char *arg[ ] <- datatype(char) args[arg_count]
4- int i <- 0
5- if arg_count = 1 then
6-     | goto take_stdin
7- else
8-     | for(i=1; i<=arg_count; i++)
9-         | if arg_count[i] = " - " <-char
10-            | goto take_stdin
11-            | else
12-                | Process each argument
```

function: take_stdin <- This will be in main()

```
1- goto take_stdin
2-   char in <- stdin
3-   while(in != eof *end of file*)
4-       | scanf("%c ", *in)
5-       | sprintf("%c ", in) <- stdout
```

2.2 Process each argument and print results

In this part of the program, we read each file one by one and take the contents of each file and print them to stdout. This part of the program determines the difference between txt and binary files. The contents of each file will get stored in a linked list.

Loop:

```
1- int <- j
2- for(j=1; j<=arg_count; j++)
3-     | read/open arg_count[ j ] <- file_#
4-     | store contents of file into linked list
5-     | print out contents of linked list from beginning - last
6-     | clear linked list
7- end
```