Asgn 0 Design Document

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1 Goal

The goal of this program is to replicate the linux command “cat.” The program should be able to read in files and copy its data and print it out to standard out. The program should also be able to take user input when no file is given or a “-” is given and print that out too. The program should handle errors as well (such as if a file specified doesn’t exist).

2 Assumptions

I’m assuming that the file size will not be so large that the program runs out of local memory to store it. I’m also assuming that the ability to read binary files works because it worked with .pdf files.

3 Design

The approach I’m taking is reading through the command itself and handling it in different cases. If the argv size is > 1, then I know there is input to be handled other than the command itself (./dog). I’ll iterate through argv and handle files and “-”s accordingly and handle errors along the way. If the argv size is not > 1, then I know the user just inputted the command itself, and you need to go to user input and print out what the user inputs, and catch termination signal.

4 Pseudocode

Procedure dog

```
    If command_input_size > 1
        Loop
            If command == "-"
                While eof signal has not been detected
                    Take user input and print it out
                End while
            End if

            Else
                Open file
                Check error for opening file
                Read file
                Check error for reading file
                Write file to std out
                Check error for writing file
                Close file
                Check error for closing file
            End else
        End loop
    End if

    Else
        While eof signal has not been detected
            Take user input and print it out
        End while
    End else
End procedure
```