Sample Design Document

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1. Goal

The goal of this program is to implement a basic **cat** program, without support for any flags. The code needs to copy data from each of the files specified on the command line to standard output.

2. Assumptions

I'm assuming we need to open the file and copy the content of the files to standard output. If there is no file in the argument, we will ask for the user input and copy it to the standard output.

3. Design

First, check the argument after dog, if there are no more arguments, then we need to read from standard input, then write to standard output. If there are one or more arguments, loop through the arguments. If the file exists, read the file and write it to standard output. If the file doesn't exist, write error message to standard output. If it's a -(dash), read standard input and write it to standard output.

4. Pseudocode

This is the core pseudocode for this program

Procedure Dog
    Declare buffer size of 32
    If no file
        Read stdin

Write stdout
       End if
       For every file
              If file == "-"
                     Read stdin
                     Write stdout
                     Continue to next file
              End if
              Open the file
              If file doesn't exist
                     Write error message to stdout
                     Continue to next file
              End if
              Read the file
              Write to stdout
       End for
       Close file
End procedure