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## 1 Goal

The goal of this program is to imitate the cat linux command. This program should read a file and print the contents of that file to stdout.

## 2 Assumptions

I am assuming that the files are valid. Meaning that it is not a directory or that the file does exist.

## 3 Design

The approach that I am taking is to first check if the argument that was passed was either blank or a "-". This is because in this case the program will copy from stdin and print to stdout. Then after opening the file i am reading 32kb of data until the eof. The eof is reached when the read() system call returns 0. Once it is done, it moves on to the next file and if there is no more files the program will terminate.

## 4 Psuedocode

```
//file dicreptor
Int fd
// number of bytes read
Int sz
//Buffer of size 32
Char *c
//flag to end loop
Int loopflag = 1
If no args given:
    Loop while(loopflag)
        Sz = read(fd, c, 32)
        If sz == 0
            Loopflag = 0
        Else
            Print c to stdout
    Endloop

Else
    Loop i < num of args passed
        If argument == '-'
            Do the same as when no args given
        Open the first file
        If no errors opening file
            If not a valid file to read from
                Print to stderr
            Else
                While sz != 0
                    Print the buffer c
                    Sz = read(fd, 0, 32)
                Close the file
            Else
                File does not exist
                warn()

End program
```