

Wayne State University

CSC 4421 - Winter 2017

Computer Operating Systems Labs

Lab 3 - Basic I/O

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Points Possible: 100  
Due: Feb 13, 2017 by 11:59 pm

## Tasks

### Task 1\*(50 points)

Implement a program to display a file's contents. It should be similar to the UNIX `cat` command when given a single file. Name your command `show`. It should have the following syntax:

```
$ ./show fileName
```

The above program displays the contents of the file named `fileName`.

**Each system call must have error checking, and print an error message if it occurs.  
You must use `open()`, `read()`, `write()` and `close()` system calls. 10 points each.**

### Task 2\*(50 points)

Modify the above program to implement a program called `body` similar to UNIX commands `head` or `tail`. It should print from the  $m^{\text{th}}$  line to the  $n^{\text{th}}$  line of the given file. It should have the following syntax:

```
$ ./body m n fileName
```

The above program displays the contents of the file named `fileName`, from line `m` to line `n`.

**Each system call must have error checking, and print an error message if it occurs.  
You must use `open()`, `read()`, `write()`, and `close()` system calls. 10 points each**