

Wayne State University

CSC 4421 - Winter 2020

Computer Operating Systems Labs

Lab 02 - Basic I/O

Instructor 001: Rui Chen

Points Possible: 100

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^{th} line to the n^{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**