

Result of Lab5a

```
hungaud@ubuntu:~/Documents/cscd340/Lab5$ gcc -o lab5a ./cscd340Lab5a.c
hungaud@ubuntu:~/Documents/cscd340/Lab5$ ls -l | wc -w
101
hungaud@ubuntu:~/Documents/cscd340/Lab5$ ./lab5a
101
hungaud@ubuntu:~/Documents/cscd340/Lab5$
```

containsPipe

```
==3210== Command: ./lab5
==3210==
command?: ls
There are 0 pipes
a.out          cscd340Lab5a.c  cscd340Lab5.c  lab5a          pipes
      tokenize      utils
cscd340_f17_lab5.pdf  cscd340Lab5a.o  lab5           Makefile  process
      Untitled Document
command?: ls | wc
There is 1 pipe
pre pipe command: ls
post pipe command: wc
      13      14      138
command?:
```

parsePrePipe

```
command?: ls -l | wc -w
There is 1 pipe
pre pipe command: ls -l
```

parsePostPipe

```
command?: ls -l | wc -w
There is 1 pipe
pre pipe command: ls -l
post pipe command: wc -w
```

basicPipeIt

```
hungaud@ubuntu:~/Documents/cscd340/Lab5$ valgrind ./lab5
==3100== Memcheck, a memory error detector
==3100== Copyright (C) 2002-2015, and GNU GPL'd, by Julian Seward et al.
==3100== Using Valgrind-3.11.0 and LibVEX; rerun with -h for copyright
info
==3100== Command: ./lab5
==3100==
command?: ls -l | wc -w
```

```
There is 1 pipe
pre pipe command: ls -l 2
post pipe command: wc -w 2
120
hungaud@ubuntu:~/Documents/cscd340/Lab5$
```

```
fixedPipeIt
command?: ls -l | pws
There is 1 pipe
pre pipe command: ls -l
post pipe command: pws
Command not found: pws
command?: pws | wc -w
There is 1 pipe
pre pipe command: pws
post pipe command: wc -w
Command not found: pws
```

Since exec changes the process image does your program leak memory?
mine did not

What happens when an invalid command is passed to the pipe either as prePipe or postPipe?
an error message will show what command was invalid starting with prePipe. if prePipe is invalid then the itll notify the user and prompt a new command without checking postpipe. If postpipe is invalid it'll notify the user and prompt a new command.

If prePipe or postPipe are invalid is memory leaked?
yes memory does leak, but the overall program doesnt leak memory