

CS 307

Programming Assignment 1

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1) Explanation of Command

Diff command is used for showing the differences between the files. Moreover -y flag can be used for showing the differences between files in two columns to enhance the readability.

I picked this command because I generally have many files or codes in my computer with small differences and similar names. Because of this I try to distinguish them by eye which is very hard. Diff -y can be used to solve this easier which is exemplified below.

According to the <http://itdoc.hitachi.co.jp/manuals/3021/3021336210e/JPAS0330.HTM> symbols in diff -y shows:

“””

The following symbols are displayed before the lines to indicate the difference:

- >: Line was added
- <: Line was deleted
- |: Line was changed
- \ (escape character): path-name-1 line contains no end-of-line code
- /: path-name-2 line contains no end-of-line code

“””

```
parallels@ubuntu-linux-20-04-desktop:~/Desktop$ diff -y -s file1 file2
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Submission includes:
pipeSim.c
report.pdf
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| Submission includes:
| command.txt
| pipeSim.c
<
```

2) Analysis of Command

As can be seen in the command.txt and pipeSim.c I used -e flag in the command which solves the problems with special characters. Moreover, I also use -a 2 flag in the command to show more lines with grep of man result for the given command.

3) Analysis of Program

```
9  int main(int argc, char *argv[])
10 {
11     printf("I'm SHELL process, with PID: %d\n", getpid());
12     int fd[2];
13     pipe(fd);
14     int rc1 = fork();
15     if (rc1 < 0) { ... }
16     else if (rc1 == 0) { ... }
17     else {
18         int rc2 = fork();
19         if (rc2 < 0) { ... }
20         else if (rc2 == 0) { ... }
21         else { ... }
22     }
23     return 0;
24 }
```

