Overview of Unix

Name	Demo 1
Review	☐
Status	Not started

Demo 1 - Overview of Unix

☐ **Task 1:** Accessing department Linux computer (e.g. apollo2) with your student account

☐ **Task 2:** Basic Unix Skills

```
ls: list all file & directory
ls -l: detailed info(access rights, owners group, modified time)
ls -a: invisible file & directory
ls -t: sort by modification time
ls -lat:
mkdir: make directory
touch: create empty contents
cd [directory_name]: change directory
cp [file_A] [directory]:
..: parent directory
.: current directory
cp -r: copy recursively
mv [file] [directory]:

rm [file]: delete a file
rm -rf [directory]: delete directory

who: show who is on system
whoami: username using

gcc:
vi [file]:
    "i" for insert to editing mode
    "esc" for escape to view mode
    ":w" for save
    ":q" for quit
    ":wq" for save and exit
    "a" for append after
    "dd" for delete current line
    "hijk" for move around
    "w" for move word by word
    "b" for move word by word backwards
    "dw" for delete word
```

```
cat [file]: print all content of file

man: like "--help"
```

- [ ] **Task 3**: Text Editing

```
vi
gedit
```

- [ ] **Task 4:** Shell output redirection e.g. who > users, who >> users

```
//shell output redirection
who > [file_name]: create name about output of "who"
                   (if file exist, delete original data then add)
who >> users: if file exist, append after all contents
```

- [ ] **Task 5:** Shell input redirection, e.g. wc –l < users.txt

```
wc: word count (line + word + characters)
wc -l: line count
wc -l < [file]: line count for file
operation "<" file
```

- [ ] pipelining

```
cat output.txt | wc -l < [file]
```

- [ ] sort

```
sort -u [file]: no duplication
```

- [ ] **Task 6:** Write, compile, and execute a C program

```
gcc -o [executable name] [c program name]
./[executable name]
```

- [ ] Task 7: Install Linux (Ubuntu 32 bit) on VirtualBox using the prepared image

ctrl + alt + T: start shell

☐ Task 8: Install Linux (e.g. kernel version 4.4.231, i.e. Ubuntu 16.04 LTS) on VirtualBox using image downloaded from Ubuntu website https://ubuntu.com

☐ Task 9: Download Linux kernel source code (e.g. version 4.4.231) from http://kernel.org