

# Chapter 1 - Unix Basic

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## Telnet setup

Telnet is a protocol that is needed to connect to a Unix Server (or SSH). It provides an interactive text-oriented communication using a terminal.

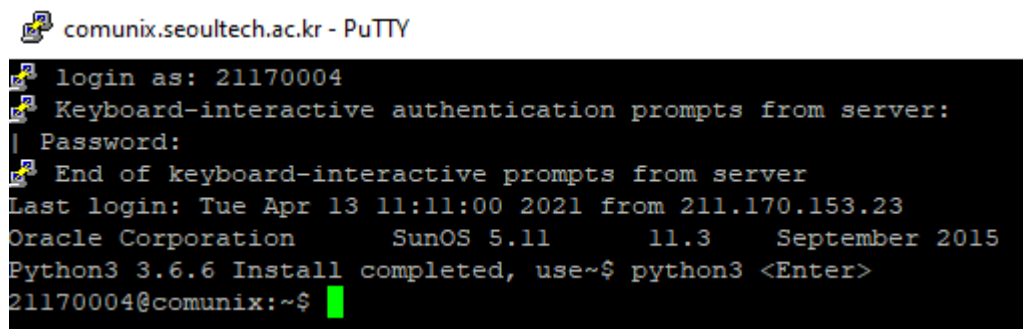
```
$ ipconfig # shows IP configuration of current machine

$ ping 10.10.54.75 # Sends ICMP Packages to destination and checks if the server
is reachable

$ telnet 10.10.54.75 # Starts a Telnet Connection
```

## Login

The Server prompts the username and password. If entered successfully the user will be able to use the Unix-Server. Output:



```
comunix.seoultech.ac.kr - PuTTY
login as: 21170004
Keyboard-interactive authentication prompts from server:
Password:
End of keyboard-interactive prompts from server
Last login: Tue Apr 13 11:11:00 2021 from 211.170.153.23
Oracle Corporation      SunOS 5.11      11.3      September 2015
Python3 3.6.6 Install completed, use~$ python3 <Enter>
21170004@comunix:~$
```

```
$ exit # Exits the (telnet) session
```

## Unix Command Syntax

Unix Command Syntax works as follows:

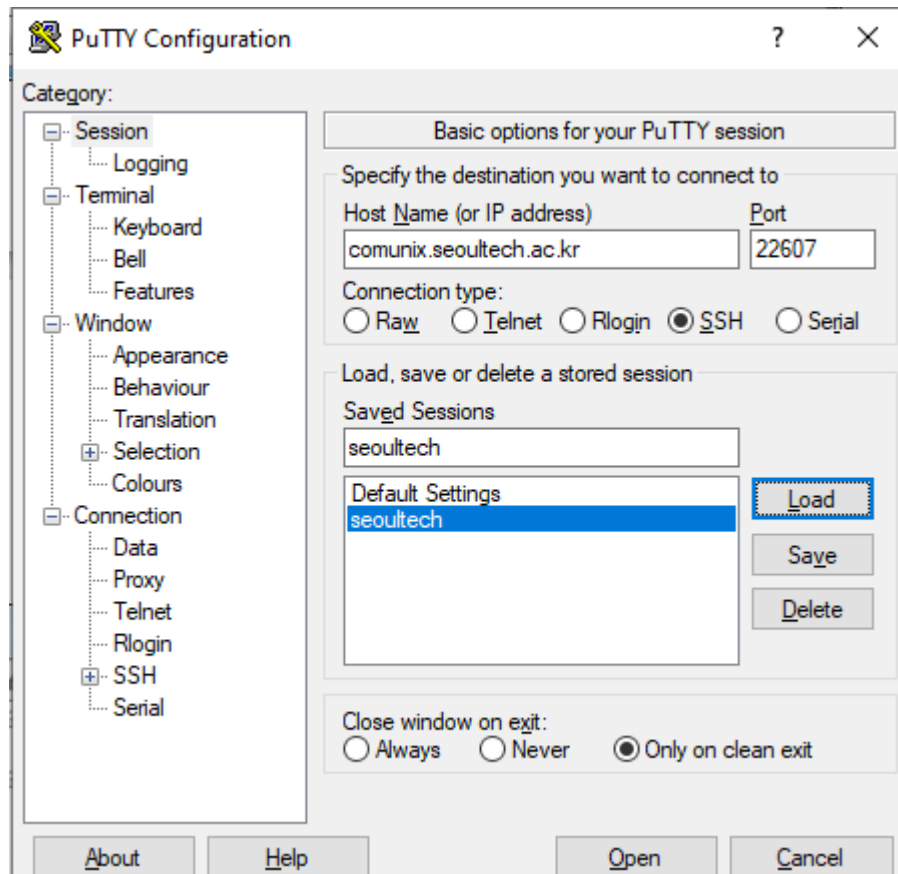
```
$ command [option] [arguments]
$ ls -sCF /usr/bin # Example
```

## SSH

SSH works similar to connecting to a server with Telnet but the messages are encrypted.

```
$ ssh 10.10.54.75
```

Putty is a program that allows to connect via SSH or Telnet:



## Basic Commands

```
uname -a
```

## Operating System information

Output: `SunOS communix 5.11 11.3 i386 i86pc`

```
date
```

## Shows the current date

Output: `Wednesday, March 24, 2021 02:30:47 PM KST`

```
id
```

Shows User ID and Group ID Output: `uid=1563(21170004) gid=500(studs)`

```
groups
```

Output: `stud` //current group

```
who
```

Shows who is connected on which terminal

Output:

```
21170004@comunix:~$ who
20101202 pts/3 Mar 24 10:54 (121.163.249.250)
19101186 pts/4 Mar 24 13:11 (211.170.153.111)
19101227 pts/5 Mar 24 13:41 (84.54.122.17)
18101237 pts/6 Mar 24 13:47 (124.51.193.126)
19101227 pts/7 Mar 24 14:00 (84.54.122.17)
21170004 pts/8 Mar 24 14:27 (210.108.124.207)
17101223 pts/9 Mar 24 14:49 (14.38.13.95)
```

```
who | grep khlee
```

Output:

```
21170004@comunix:~$ who | grep khlee
khlee pts/15 Apr 13 20:56 (117.17.198.87)
```

```
finger [id]
```

Output:

```
21170004@comunix:~$ finger
Login      Name           TTY           Idle    When      Where
18101201 dustnrkfnfn    pts/1         6:51   Tue 13:07  1.231.8.91
19100197 wjdghdb001201 pts/16                Tue 20:02  220.116.118.24
20101281 rosa7536      pts/3         20     Tue 23:46  120.142.100.142
21170004 pmoritzer     pts/4                Wed 00:09  211.170.153.23
khlee     Khlee_Pf      pts/15         3:11   Tue 20:56  117.17.198.87
```

```
w
```

Output:

```
21170004@comunix:~$ w
 12:12am  up 47 day(s),  6:50,  5 users,  load average: 0.00, 0.00, 0.00
User      tty          login@    idle   JCPU   PCPU   what
18101201 pts/1        1:07pm   6:52    1      -bash
20101281 pts/3        11:46pm   21      -bash
21170004 pts/4        12:09am           w
khlee     pts/15       8:56pm   3:12    rlogin -l unix100 117.17.198.
24
```

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## Terminal Setting

```
$ tty #shows current terminal
$ stty -a #shows more terminal settings
$ stty erase #Rebinds/Deletes terminal setting
$ echo hello | write unix300 pts/7 # Writes a message to user unix300 on terminal
pts/7
```

## Password Change

```
$ passwd # prompts to enter old and new password
```