Homework #1

1. Start a Terminal (Applications→Accessories→Terminal)

2. Change the root password to "1234" by using "sudo passwd".

3. Compare the command "echo Hello" and "Echo Hello"

   (1) Take a screenshot

   (2) Explain the reason of the result

4. Press "CTRL+d" or "ALT+F4"

   (1) Describe what happens

5. Start a Terminal, then do "su" (enter the password, "1234"), then do "groupadd defender", then do "groupadd attacker", then do "groupadd neverland", then do "useradd peterpan -m -s /bin/bash -G defender,neverland", then do "useradd hook -m -s /bin/bash -G neverland", then do "passwd peterpan" (set new password (1234)), then do "passwd hook" (set new password(1234)), then do "usermod -a -G attacker hook", then do "tail /etc/passwd", then do "tail /etc/group", then do "id peterpan", then do "id hook", do "exit"

   (1) Take a screen shot

   (2) Describe the meaning of the commands

     (a) "useradd peterpan -m -s /bin/bash -G defender,neverland"

     (b) usermod -a -G attacker hook

   (3) Describe GID and members of new groups (defender, attacker and neverland), UID of new users (peterpan, hook)

6. Do "clear", and do "whoami" command, then do "su peterpan" (enter the password), then do "whoami", then do "su hook" (enter the password), then do "whoami", then "su" and enter root password (1234), then do "whoami", then do "exit", then do "exit", then do "exit" , then do "whoami"

   (1) Take a screen shot

   (2) Explain the functionality of "su" and "whoami"

   (3) Explain why three times of doing "exit" is required.

7. Do "last" command, then take a screen shot

Problems

1. Create a new user "wendy". (Conditions : "Wendy" is included in two groups, "neverland" and "defender". The home directory of "Wendy" will be "/home/wendy", and the shell will be "/bin/bash".)
 (1) List the required commands sequentially, and describe their roles.
 (2) For validating the operations of the commands, print the contents of "/etc/passwd" file and "/etc/group" file by tail and take the screenshot. 📷

2. Describe what is /etc/login.defs file, and list the important configuration parameters with simple explanation.

3.
(1) Create the following 3 users
   - tester1 : UID = 2001, default-group = class1
   - tester2 : UID = 2003, default-group = class1, other-groups = class2
   - tester3 : UID = 2005, default-group = class2, other-groups = class1, class3
  To verify the results, print the contents of "/etc/passwd" file and "/etc/group" file by tail and take the screenshot. 📷
(2) Then, set a group password for class2 as "13579".
 After then, switching user to "tester1" (su) and initiating a new session with class2 GID (newgrp).
 To check the session run "id" command.
 To verify the results, take the screenshot of this procedure. 📷
 (3) Describe the meaning of the result (1) and (2)

4. Describe why "newgrp" command is required. When you can use this command? Provide a scenario for using "newgrp" command.