**Instructions:**

**Diagram

Description automatically generatedThis handout is just for practice. It is the responsibility of the student to attend class to mark their own work in class when your professor takes up this exercise.**   
  
For each of the following questions, use a pathname starting from  
the **root** directory (i.e. “/”).

**Questions:**

1. Write a single Linux command to create the directory structure starting from your **home** directory from the diagram displayed on the right.

mkdir -p practice/concepts/history practice/concepts/directories practice/project/1 practice/project/2

**when not start from home directory**mkdir -p ~/practice/concepts/history ~/practice/concepts/directories ~/practice/project/1 ~/practice/project/2

1. Write a Linux command to display a detailed listing of   
   the **history** directory.  
     
   ls -l practice/concepts//history/  
     
   How would this command differ if you wanted to also view **hidden** files as well?
2. ls -a

-a, --all

do not ignore entries starting with .

-A, --almost-all

do not list implied . and ..

1. Write a Linux command to change to the **project** directory.

cd practice/project/ OR cd practice/project

What command would you issue to return to your **home** directory?  
  
cd

1. Write a Linux command to copy the **project** directory and its contents to the **history** directory.  
     
   cp -r ~/practice/project ~/practice/concepts/history

1. Write a Linux command to move the directory called **directories** to the **history** directory.  
     
   mv ~/practice/concepts/directories ~/practice/concepts/history
2. Write a Linux command to remove both directories called **1** and **2**.  
     
   rmdir ~/practice/concepts/history/project/?

rmdir ~/practice/concepts/history/project/\*

1. Write a Linux command to remove the **concepts** directory and its contents.

rm -r ~/practice/concepts OR rm -r ~/practice/concepts/

1. Write a Linux command to remove the **concepts** directory and prompt the user if they want to remove this directory’s contents.

rm -r -i ~/practice/concepts OR rm -r -i ~/practice/concepts/

1. Write a single Linux command to create the following empty files in the **concepts** directory:  
   **myfile.txt  
   yourfile.txt  
   thefile.txt**

touch ~/practice/concepts/myfile.txt ~/practice/concepts/yourfile.txt ~/practice/concepts/thefile.txt

1. Write a Linux command to view the contents of the **myfile.txt** text file to prove it is empty.  
     
   cat ~/practice/concepts/myfile.txt

What is the difference between the commands: **cat**, **more** and **less**?  
cat  
Display text file’s contents without editing (small files)

more / less

Display/navigate within large text files without editing

1. Write a Linux command to sort the contents of a file called **practice/customers.txt**

sort ~/practice/customers.txt (DISPLAY sorted result only)

sort -o ~/practice/customers.txt ~/practice/customers.txt (Write sorted result to itself contents)

1. Write a Linux command to display the **first 4 lines** of a file called **practice/customers.txt**

head -4 ~/practice/customers.txt

1. Write a Linux command to display the **last line** of a file called **practice/customers.txt**

tail -1 ~/practice/customers.txt

1. Write a Linux command to match a line containing the pattern **Linux** in a file called **practice/customers.txt**

grep Linux ~/practice/customers.txt

1. Write a Linux command to display **unique occurrences** of consecutive lines in a file called **practice/customers.txt**

sort ~/practice/customers.txt | uniq (WORK FOR UNSORTED TEXT)

uniq ~/practice/customers.txt (WORK FOR SORTED TEXT ONLY)

1. Display only unique lines (the lines that are repeated or duplicated will not show):

sort ~/practice/customers.txt | uniq -u (WORK FOR UNSORTED TEXT)

uniq -u ~/practice/customers.txt (WORK FOR SORTED TEXT ONLY)

1. Create a **table** listing each Linux command, useful options that are displayed near the top of this tutorial labelled: **Tutorial Reference Material**