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| Bahrain Polytechnic |
| Unix Systems |
| Lab Session 3 |
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# Lab session 3 – Using a text editor in Unix/linux

## Introduction

The lab work consists of practical tasks. All answers to tasks should be submitted in a text document, uploaded to Moodle.

You must submit the following:

* A single compressed file containing the correct files, uploaded to Moodle

**Note: Each Lab session is worth 1% of your final mark**

### **Learning Outcomes Assessed**

The following learning outcomes are being assessed in this lab session:

* Use the command-line on a UNIX system
* Manage a Linux server system (including files, processes, users)

## Lab3 – Part 1 Create/Edit

For part 1 of this lab, use the guides and cheat sheets available on Moodle to help you.

1. Create a new directory called **lab3** in **your** home directory

**Mkdir lab3**

**Cd lab3**

1. Using vi, create a new file named lab3\_part1\_*studentID*.txt. Edit the new file and insert the following text:

“Vi editors can be tricky to use but they are very useful for administrive tasks such as editing configuration files and writing scripts. Linux administrators need to be able to use GUIs, command-line and text editors.”

**Vi** **lab3/lab3\_part1\_202201043.txt**

**You will enter vi mode**

**Press I to enter insert mode and type**

1. Save the file on the Unix server, in the **lab 3** directory. The file should be named ‘lab3\_part1\_*studentID*.txt’. You will use this file in part 3 of the lab. Continue to part 2.

**Press esc**

**:wq to write/save and quit**

**More lab3/lab3\_part1\_202201043.txt**

## Lab3 – Part 2 Search and Replace

For part 2 of this lab, use the guides and cheat sheets available on Moodle to help you.

1. There is a file located at /home/lab\_files named ‘lab3\_part2.txt’. **Copy** this file from the home/lab\_files directory to your own folder, e.g. /home/ A*studentID*.

**Cp (copy) /home/lab\_files/lab3\_part2.txt (from) /home/A202201043/lab3 (to)**

Check that the file is there using the appropriate command.

**Ls**

1. Edit the file using vi and add the following sentence to the end of the text:

“Bahrain Poly IT students are the best in the industry.” Save the file. Check that you have updated the file correctly.

**Vi lab3/lab3\_part2.txt**

**Shift G or /A**

**Press i**

**Type the text or press right click**

**esc**

**:wq**

**More lab3\_part2.txt**

1. Delete the sentence:

“Bahrain Poly is located in Manama”. Save the file and check that it has been updated correctly.

**Vi lab3/lab3\_part2.txt**

**Press dd on the line that needs to be deleted**

**:wq**

1. Throughout the file, the word “Poly” appears many times. Using the vi editor; perform a search and replace, change the word “Poly” to “Polytechnic”.

**Vi lab3/lab3\_part2.txt**

**:%s/Poly/Polytechnic/g**

**OR :%s/\<Poly\>/Polytechnic/g (to only change words that say Poly)**

**:wq**

1. Rename the file to ‘lab3\_part2\_*studentID*.txt’.

**Mv lab3\_part2.txt lab3\_part2\_202201043.txt**

**Ls -l lab3**

## Lab3 – Part 3 Backup

1. Create a backup of the files:
   1. Lab3\_part1\_*studentID*.txt

**Cp --backup lab3\_part1\_202201043.txt lab3\_part1\_202201043\_051022.bak**

* 1. Lab3\_part2\_*studentID*.txt

**Cp --backup lab3\_part2\_202201043.txt lab3\_part2\_202201043\_051022.bak**

Use the .bak extension and name the files as ‘lab3\_partX\_*studentID*\_ddmmyy.bak’. Where ‘X’ is part 1 or 2 and ddmmyy represents the date, month and year in that format.

You should now have a total of 4 files.

**Ls -l**

## Lab3 – Part 4 Archive

1. Archive all 4 files to create one file named ‘lab3\_*studentID.tar*’. You should have the following files:
   1. Lab3\_part1\_*studentID*.txt
   2. Lab3\_part2\_*studentID*.txt
   3. Lab3\_part1\_*studentID*\_ddmmyy.bak
   4. Lab3\_part2\_*studentID*\_ddmmyy.bak

**Tar cvf lab3\_202201043.tar \*.txt \*.bak**

**Or type each file name**

**Or cd ..**

**Tar cvf lab3\_202201043.tar lab3**

**To view the contents of the archieve: Tar tvf lab3\_202201043.tar lab3**

## Lab3 – Part 5 Compress

1. Compress the lab3\_*studentID*.tar file using the appropriate commands

**Zip lab3\_202201043.zip lab3\_202201043.tar**

**Ls -l**

1. Retrive the compressed file ‘lab3\_*studentID.zip*’ (OR ‘lab3\_*studentID.tar.gz’*) from the Unix server.

This file has to be uploaded to Moodle.

**Open psftp**

**Open student2.bptest.cloud**

**A202201043**

**041112253**

**Lcd C:\Users\USER\Documents**

**Get lab3\_202201043.zip**

## Lab3 – What you need to submit

Submit the following file on Moodle:

1. The compressed file ‘lab3\_*studentID.zip*’ (OR ‘lab3\_*studentID.tar.gz’*).

The full name of the file will depend on the compression used.

Connect to Moodle using the standard web browser (<http://www.tinyurl.com/moodlepoly>) or (http://webdev.polytechnic.bh/moodle) and then upload the saved document to the ‘Lab 3 file upload’ area in the Unix Systems Moodle course.