Course: Operating Systems
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Lab-3

Objectives

1. Updating and Upgrading System
2. Installation of a tool using command line
3. Introduction to Vim Editor
4. Compile and Run a C Program
5. Self-Learning & Sharing

Update and Upgrade and Installation

$ sudo apt-get update

$ sudo apt-get upgrade

$ sudo apt install <tool name>

Installation of vim editor

Vim text editor

The ubiquitous text editor Vim is a highly configurable text editor built to make creating and changing any kind of text very efficient. It is included as "vi" with most UNIX systems and with Apple OS X. Vim is rock stable and is continuously being developed to become even better.

$ sudo apt install vim

Exploring vim editor

Check the version of installed tool use which command:

$ which vim

Create a file with vim

$ vim filename

Command mode is available when you press escape **ESC** key on your keyboard

Editor mode is available for inserting text when you press **i** key on your keyboard

Some commands of vim editor:

:q

:w

:wq

:set number

Deleting line: On a particular line press dd to delete, press it multiple times to delete multiple lines, or 3dd for deleting three consecutive lines

Undo Action: press **u** to undo the previous action

Redo Action: press **Ctrl+r** to redo the action

Find

:/<word to search>

Replace

:%s/<word>/<new word>/gc   //ask for each replacement entry

:%s/<word>/<new word>/gc   // doesn't ask, just replace everything

Compile and Run a C Program

Step 1: Use a text editor to create the C source code

Type the command
vim first.c

Enter the C source code below:

```
#include <stdio.h>
main() {
printf("Hello World \n");
}
```

Save and close the file.

Step 2: Compile the program.
Type the command
gcc -o first first.c

This command will invoke the GNU C compiler to compile the file first.c and output (- o) the result to an executable called hello.

Step3: Execute the program

Type the command
./first

This should result in the output Hello World

Self-Learning and Experience Sharing Part:
Explore any 10 new options of vim editor, and discuss in next lab session.