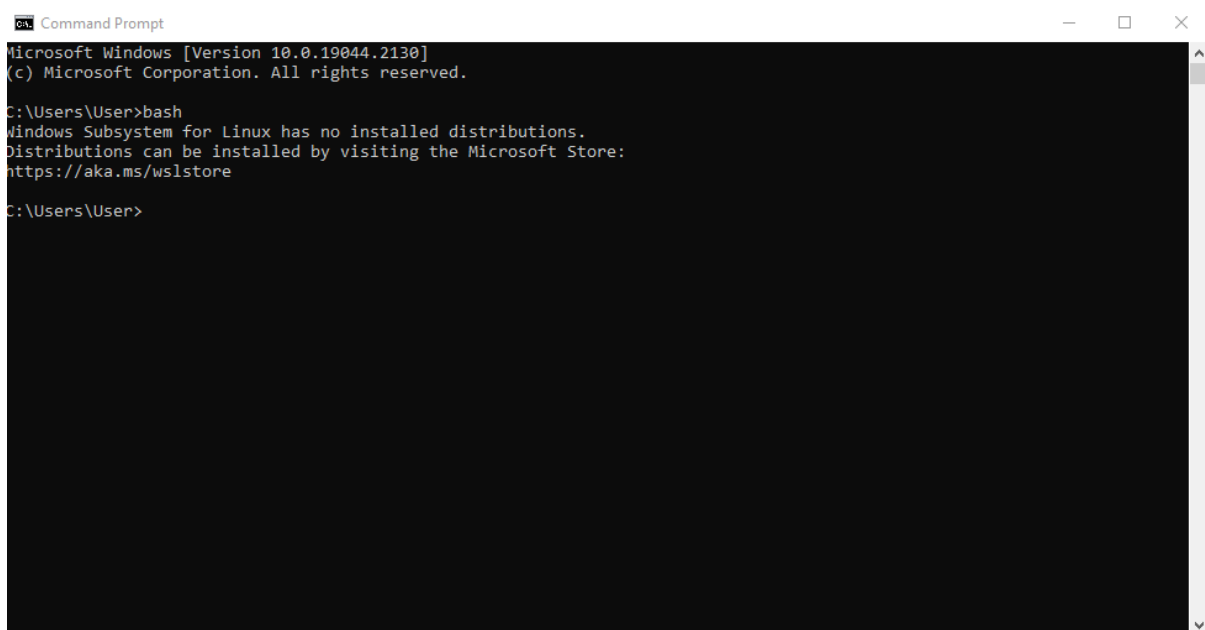


Linux for Windows

Installation

1. Click on Windows bar
2. Search for *Turn Windows On Or Off*, which is in the Control Panel
3. Scroll and select *Windows subsystem for Linux*
4. Restart PC
5. Open Command Prompt and enter *bash*



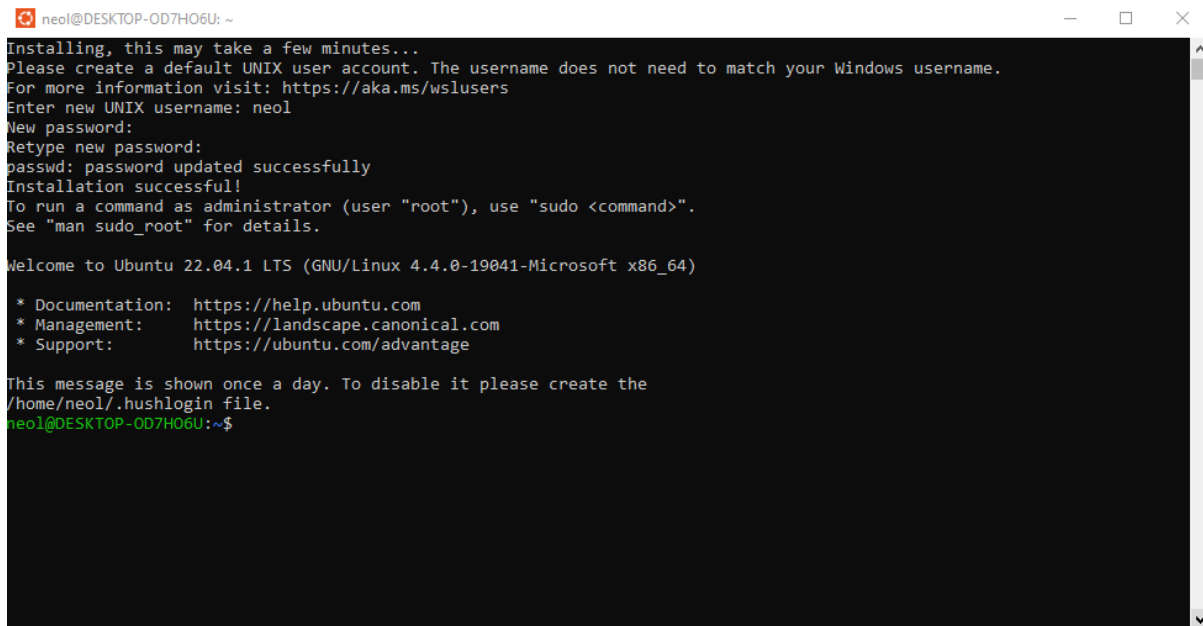
```
Command Prompt
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\User>bash
Windows Subsystem for Linux has no installed distributions.
Distributions can be installed by visiting the Microsoft Store:
https://aka.ms/wslstore

C:\Users\User>
```

Figure 1: Command Prompt

6. Either go to link presented in Command Line or Microsoft store
7. Search for and install *Ubuntu*
8. Once installation is complete, open the application
9. Follow the prompts by entering your name, choosing a password and confirming your password
10. Once in the Linux environment, insert the following prompts. The prompt and a brief explanation are included:



```
neol@DESKTOP-OD7H06U: ~
Installing, this may take a few minutes...
Please create a default UNIX user account. The username does not need to match your Windows username.
For more information visit: https://aka.ms/wslusers
Enter new UNIX username: neol
New password:
Retype new password:
passwd: password updated successfully
Installation successful!
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

Welcome to Ubuntu 22.04.1 LTS (GNU/Linux 4.4.0-19041-Microsoft x86_64)

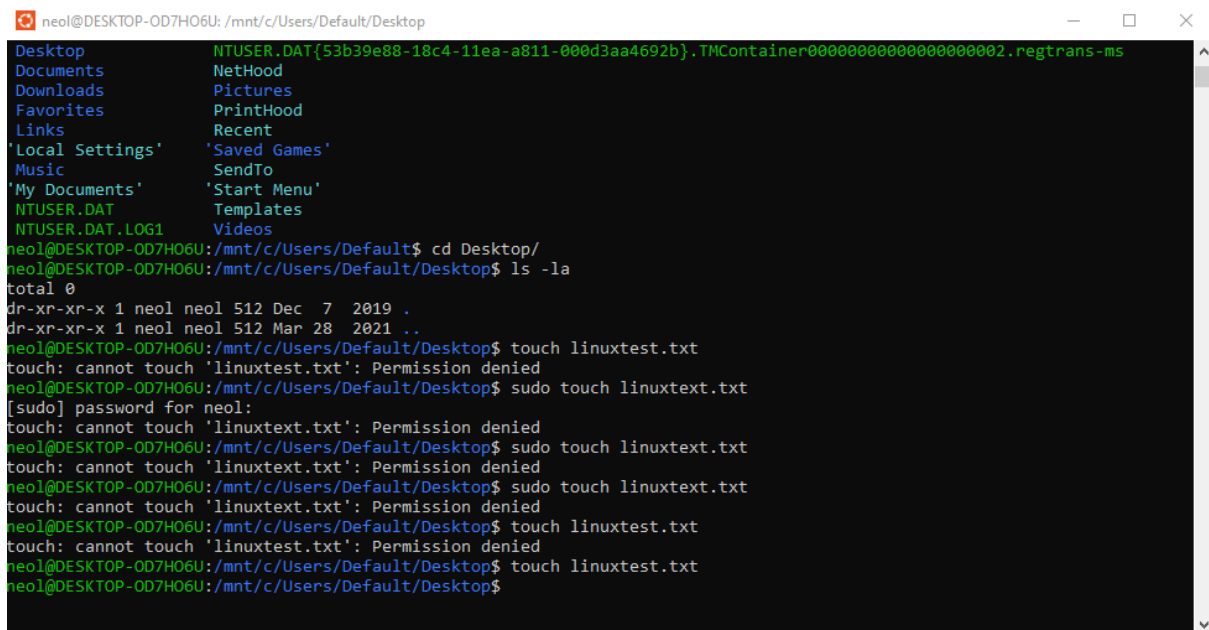
 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

This message is shown once a day. To disable it please create the
/home/neol/.hushlogin file.
neol@DESKTOP-OD7H06U:~$
```

Figure 2: Linux Interface

- pwd (print working directory)
- ls -la (all files within the working directory are listed)
- ls /mnt (Mount point under which you mount your filesystems or devices)
- cd /mnt/c (Change into C: drive)
- ls -la
- cd Users/ - (Change directory into Users)
- cd Desktop/ - (Change directory into Desktop folder)
- cd into (your) specific folder (mine was called 'Default')
- ls
- touch *linuxtest.txt* – (Creating a file named linuxtest.txt in selected folder)

Note: I experienced issues when using the touch command and received a “permission denied” error. This was resolved by amending Security issues in Desktop folder.



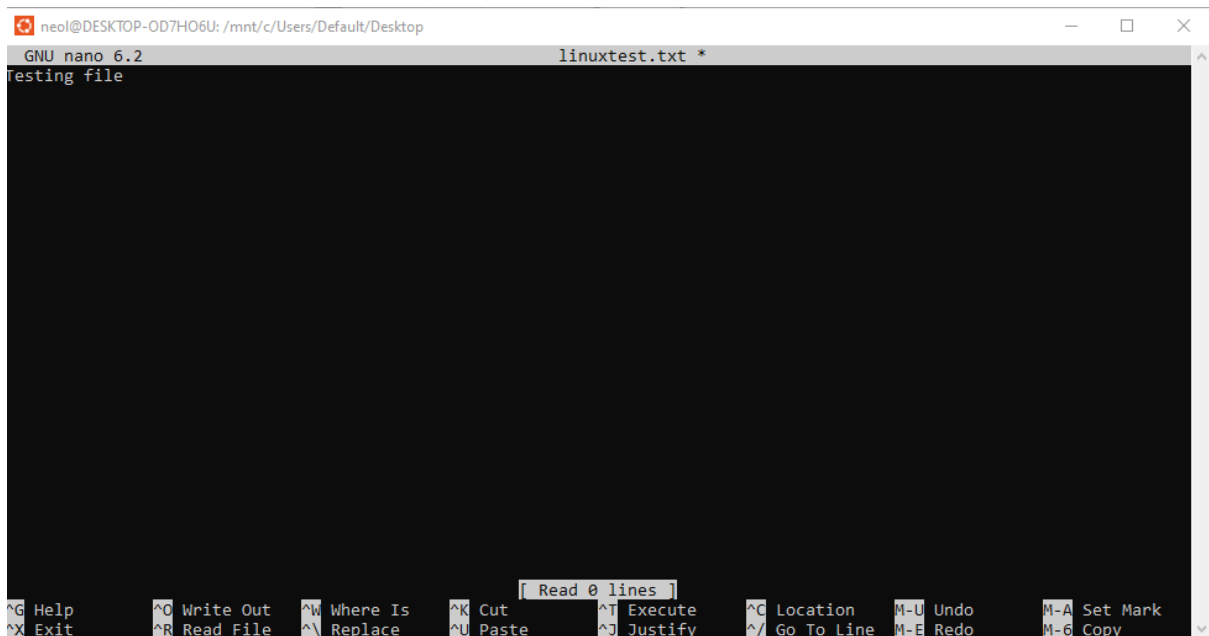
```
neol@DESKTOP-OD7H06U: /mnt/c/Users/Default/Desktop
Desktop      NTUSER.DAT{53b39e88-18c4-11ea-a811-000d3aa4692b}.TMContainer000000000000000002.regtrans-ms
Documents    NetHood
Downloads    Pictures
Favorites    PrintHood
Links        Recent
'Local Settings' 'Saved Games'
Music        SendTo
'My Documents' 'Start Menu'
NTUSER.DAT   Templates
NTUSER.DAT.LOG1 Videos
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default$ cd Desktop/
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ ls -la
total 0
dr-xr-xr-x 1 neol neol 512 Dec  7 2019 .
dr-xr-xr-x 1 neol neol 512 Mar 28 2021 ..
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ sudo touch linuxtest.txt
[sudo] password for neol:
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ sudo touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ sudo touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ touch linuxtest.txt
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$
```

Figure 3: Linux interface revealing all commands

File created in Desktop folder

- nano *linuxtest.txt* – (To edit file)

The below window will open:



```
neol@DESKTOP-OD7H06U: /mnt/c/Users/Default/Desktop
GNU nano 6.2 linuxtest.txt *
Testing file

Read 0 lines
^G Help      ^O Write Out ^W Where Is  ^K Cut       ^T Execute  ^C Location  M-U Undo     M-A Set Mark
^X Exit      ^R Read File ^N Replace   ^U Paste     ^J Justify  ^_ Go To Line M-E Redo     M-6 Copy
```

Figure 4: Writing to file created

```
neol@DESKTOP-OD7H06U: /mnt/c/Users/Default/Desktop
Downloads      Pictures
Favorites      PrintHood
Links          Recent
'Local Settings' 'Saved Games'
Music          SendTo
'My Documents'  'Start Menu'
NTUSER.DAT     Templates
NTUSER.DAT.LOG1 Videos
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default$ cd Desktop/
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ ls -la
total 0
dr-xr-xr-x 1 neol neol 512 Dec  7 2019 .
dr-xr-xr-x 1 neol neol 512 Mar 28 2021 ..
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ sudo touch linuxtest.txt
[sudo] password for neol:
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ sudo touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ sudo touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ touch linuxtest.txt
touch: cannot touch 'linuxtest.txt': Permission denied
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ nano linuxtest.txt
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$ cat linuxtest.txt
Testing file
neol@DESKTOP-OD7H06U:/mnt/c/Users/Default/Desktop$
```

- `cat linux.txt` – returns what's in the file

Running updates

Following commands are used to when running upgrades:

- `sudo apt-get upgrade` – upgrade software
- `sudo apt-get update` – update software
-

Tree installation

Tree – listing of files in current directory

- `sudo apt-get install tree`

