**Objectives**

1. Research information about software for a specific operating system (OS) environment. You will be assigned one of the operating systems form the list of: Windows, Mac OS, Linux. You will also be provided with a list of topics to investigate.
2. Organize your rough research information into a list of topics, sub-topics and facts. This process will involve identifying sub-topics, rearranging your rough research notes, and selecting (or highlighting) interesting facts.
3. Report a summary of your research in the form of a “concept map”. Use the PowerPoint template provided as a starting point. The concept map should only include the best and most interesting information from your organized research notes.

Your assigned operating system is:

* Windows (safe marking)
* Mac OS (safe marking)
* Linux (double bonus marking)
* iOS (bonus marking)
* Android (bonus marking)

The concept map template can be downloaded from the “Topic A” folder on the class GitHub repository.

**Step 1 – Rough Research**

Research information about the software for your assigned operating system (OS) environment.

* Guide your research according to the suggested topic list below
* Feel free to copy-and-paste as long as you keep track of your bibliographic references.
* Do not be too picky or concerned about formatting as you will organize this information later in step 2
* Select things that look interesting and don’t forget to include graphics images as well
* Upload your rough research notes to your repository when you are done.

Topic A – Productivity & Application Software

* + What is the best Linux software?
    - VLC is most commonly known for being a media player, although it does much more than this. ...
    - Firefox is the default web browser for a number of Linux distros such as Ubuntu and Linux Mint. ...
    - GIMP (GNU Image Manipulation Program) is a free image editor. ...
    - Thunderbird is a free and powerful email client.
    - …

Topic B – Entertainment & Media Software

* + Thunderbird. From the guys that brought us Firefox, Thunderbird is Mozilla's email client. ...
  + Geary. The default email client that comes with the GNOME 3 Desktop environment. ...
  + Evolution. ...
  + Firefox or Chrome. ...
  + LibreOffice. ...
  + gscan2pdf. ...
  + KeePass. ...
  + VirtualBox.

Topic C – Programming Tools & Environment

**Bluefish** is a powerful editor targeted towards programmers and web developers, with many options to write websites, scripts and programming code. ... **Bluefish** is a multi-platform application that runs on most desktop operating systems including **Linux**, FreeBSD, MacOS-X, Windows, OpenBSD and Solaris.

<https://www.google.ca/search?client=safari&channel=iphone_bm&biw=1440&bih=862&ei=spLrW9W0NZGg5wK24YzAAQ&q=what+is+Linux+bluefrish&oq=what+is+Linux+bluefrish&gs_l=psy-ab.3..33i160k1.431495.440996.0.441580.42.37.1.0.0.0.164.3924.13j22.35.0....0...1c.1.64.psy-ab..26.16.1486...0j35i39k1j0i67k1j0i20i263k1j0i22i30k1j33i21k1.0.1BPEe6bdoUk>

Topic D – System Tools

**Nmon** (stands for Nigel's **performance Monitor**) tool, which is used to monitor all Linux resources such as CPU, Memory, Disk Usage, Network, **Top** processes,**NFS**, Kernel and much more.

<https://www.google.ca/search?safe=strict&rlz=1C5CHFA_enCA822CA822&ei=TGXrW4qgMYWG5wK_4LXwAQ&q=what+is+Linux+System+Tools&oq=what+is+Linux+System+Tools&gs_l=psy-ab.3...23186.24754.0.25650.2.2.0.0.0.0.148.272.0j2.2.0....0...1c.1j2.64.psy-ab..0.0.0....0.F-eQWnRd_MA>

Topic E – Software Security & Updates

Among **Linux**-based tools for **security**, ClamAV is an antivirus **software** program written exclusively for a **Linux** distro. It is designed to detect Trojans, viruses, malware and other threats on the system.

<https://www.google.ca/search?safe=strict&rlz=1C5CHFA_enCA822CA822&ei=TGXrW4qgMYWG5wK_4LXwAQ&q=what+is+Linux+Software+Security+%26+Updates&oq=what+is+Linux+Software+Security+%26+Updates&gs_l=psy-ab.3...48942.48942.0.50251.1.1.0.0.0.0.162.162.0j1.1.0....0...1c.2.64.psy-ab..0.0.0....0.Ly55cqCYA8U>

Topic F – File System & User Accounts

Linux/Unix operating systems have the ability to **multitask** in a manner similar to other operating systems. However, Linux's major difference from other operating systems is its ability to have multiple users. Linux was designed to allow more than one user to have access to the system at the same time.

<https://www.google.ca/search?safe=strict&rlz=1C5CHFA_enCA822CA822&ei=z2brW-q0Es2P5wK1472wDg&q=what+is+Linux+File+System+%26+User+Accounts&oq=what+is+Linux+File+System+%26+User+Accounts&gs_l=psy-ab.3...51498.51498.0.52519.1.1.0.0.0.0.157.157.0j1.1.0....0...1c.2.64.psy-ab..0.0.0....0.pBwotZnOmHU>

Topic G – Special Features of your OS

**As an Operating System, some of Linux features are:**

* **Portable**(Multiplatform)
* Multitasking.
* Multi User.
* Multiprocessor (SMP) Support.
* Multithreading Support.
* Virtual **Memory**.
* Hierarchical File System.
* Graphical User Interface (X Window System, Wayland)

<https://www.google.ca/search?safe=strict&rlz=1C5CHFA_enCA822CA822&ei=aWbrW4eDB-OG5wL1-4PgDA&q=what+is+Linux+Special+Features+of+your+OS&oq=what+is+Linux+Special+Features+of+your+OS&gs_l=psy-ab.3...97840.100073.0.101349.2.2.0.0.0.0.163.289.0j2.2.0....0...1c.1j2.64.psy-ab..0.1.126...0j35i39k1j0i67k1.0.U_b9mVZJs-s>

Topic H – Limitations of your OS

**Operating system limitations**—**Linux**. ArcGIS Engine-related products are only supported on **Linux** CPUs that adhere to **the** x86 architecture with supported **Linux**releases. It is a requirement that **the OS** (binary) not be modified. Esri does not support a developer's release of any **operating system**.

<https://www.google.ca/search?safe=strict&rlz=1C5CHFA_enCA822CA822&ei=BGfrW76GK4OJ5wKHsI74CA&q=what+is+Linux+Limitations+of+your+OS&oq=what+is+Linux+Limitations+of+your+OS&gs_l=psy-ab.3...104330.106477.0.107304.3.3.0.0.0.0.157.391.1j2.3.0....0...1c.1j2.64.psy-ab..0.2.253...0j35i39k1j0i67k1j0i20i263k1.0.Zx9rjgEh7oQ>

**Step 2 – Organized Research**

Organize your rough research information to provide more stricture and meaning.

* Re-read your rough research to identify (highlight) important sub-topics and facts
* Rearrange (cut–and-paste) your rough research so that related sub topics and facts are next to each other.
* Your finished organization should look like the template provided below.
* Upload your rough research notes to your repository when you are done.

Suggested organization template:

* Topic A – Productivity & Application Software
  + - VLC is most commonly known for being a media player, although it does much more than this. ...
    - Firefox is the default web browser for a number of Linux distros such as Ubuntu and Linux Mint. ...
* Topic B – Entertainment & Media Software
  + Evolution. ...
  + Firefox or Chrome. ...
  + LibreOffice. ...
  + gscan2pdf. ...
  + KeePass. ...
  + VirtualBox.
* Topic c
* **Bluefish** is a powerful editor towards programmers and web developers, .**Bluefish** have a lot of platform application that runs on most desktop operating systems that including **Linux**, FreeBSD, MacOS-X, Windows, OpenBSD and Solaris.
* Topic D – System Tools
* **Nmon** is tool, which used to monitor all Linux resources like CPU, Memory, Disk Usage, Network, **Top** processes, Kernel and much more.
* Topic E – Software Security & Updates
* **Linux** tools for **security** is ClamAV is an antivirus **software** program written for **Linux** . It is designed to detect Trojans, viruses, malware and other threats on Linux system.
* Topic F – File System & User Accounts
* Linux operating systems have multitask in a manner similar to other operating systems. Linux was designed to allow more than one user to have access to the system at the same time.

Topic G – Special Features of your OS

**As an Operating System, some of Linux features are:**

* **Portable**(Multiplatform)
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**Step 3 – Concept Map**

Create a “concept map” as a final report of your organized research.

Use the PowerPoint template provided as a starting point.

You can use PowerPoint or another concept mapping tool of your choice.

Select the best and most interesting information from your organized research.

Summarize and edit your information to fit on the concept map.

Share your finished concept map with Mr. Nestor at p0079141@pdsb.net

The concept map template can be downloaded from the “Topic A” folder on the class GitHub repository

