**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
* Mac OS
* Linux

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

Topic B – Entertainment & Media Software

Topic C – Programming Tools & Environment

Topic D – System Tools

Topic E – Software Security & Updates

Topic F – File System & User Accounts

Topic G – Special Features of your OS

Topic H – Limitations of your OS

Step 2 – Organized Research

Step 3 – Concept Map

A2. describe the different types of software products, and assess the software needs of users;

A2.1 explain the difference between software used

for applications *(e.g., word processor, spreadsheet,*

*email client)*, programming *(e.g., an integrated*

*development environment)*, and systems

*(e.g., operating system tools such as a registry*

*editor and a defragmenting tool)*;

A2.2 assess user computing needs and select

appropriate software for different situations

*(e.g., a student on a fixed budget, a home business*

*user, a gaming enthusiast, a photographer, a*

*home video enthusiast, a distance education user,*

*a human resources manager, an accountant)*.

A3. use the basic functions of an operating system correctly;

A3.1 describe operating system functions that

meet various user needs *(e.g., running applications,*

*organizing files, managing users, configuring*

*peripherals)*;

A3.2 use file management techniques to organize

and manage files *(e.g., copy, move, delete,*

*rename files; create shortcut)*;

A3.3 use general keyboard shortcuts to perform

common tasks *(e.g., cut, copy, paste, print, print*

*window, print screen)*;

A3.4 describe the features and limitations of various

operating systems.

A5. explain the importance of software updates and system maintenance to manage the performance

and increase the security of a computer.

A5.2 explain the importance of maintaining software

updates *(e.g., operating system updates,*

*application software updates, virus definitions)* to

increase computer security and maintain hardware

and software compatibility;

A5.3 explain the importance of preventive maintenance

*(e.g., defragmenting a hard drive,*

*deleting unused software and data files)* to

manage computer performance.