**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)

A concept map can be created using the “Smart Ideas” application or PowerPoint or other applications.

**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.

https://en.wikipedia.org/wiki/List\_of\_features\_in\_Android

Topic A – Productivity & Application Software

Topic B – Entertainment & Media Software

* Google Play Books Google Play, Google's marketplace for many different Android apps, offers a marketplace for fiction, nonfiction and poetry. The New York Times and most other journalism outlets are available by subscription as well. Each interface offers a customizable setup, so each reader can choose his or her ideal digital atmosphere before they settle down for a good read.
* Spotify gives you access to millions of different songs-including almost all contemporary artists-for free. To get it on a tablet or mobile phone, you have to shell out $10 a month, but you're able to use it for free on a notebook or desktop-provided you can deal with the commercials. If you subscribe to Spotify Premium, you'll get to listen commercial-free and access its music library from anywhere with 3G, 4G or Wi-Fi. You can create and share playlists with your Facebook friends, listen to their radio app and make use of many other features too. These Android entertainment apps-whether you like to listen to music, watch movies, read or play games-are just the tip of the iceberg as far as entertainment apps are concerned. App marketplaces like Google Play have thousands of entertainment apps available to users. Some cost a few bucks, but there are so many free Android entertainment apps that most of the time, you won't have to spend a cent.
* Play music is a great app, base androids get such as Samsung’s get it allows you to have the ability to download and play music or even buy it.

Topic C – Programming Tools & Environment

Topic D – System Tools

Topic E – Software Security & Updates **A whole new security-  
update programme**

Security has always been a major focus for Android. We designed the system to protect users with multiple layers of protection in the platform and built-in security services.

But we’re never satisfied.

To make Android even safer, we share source code for security fixes every month with our partners and users. We also have an established monthly update cycle for Nexus and Pixel devices and partners.

Topic F – File System & User Accounts

Topic G – Special Features of your OS

**Near Field Communication (NFC)**

Most Android devices support NFC, which allows electronic devices to easily interact across short distances. The main aim here is to create a payment option that is simpler than carrying credit cards or cash, and while the market hasn’t exploded as many experts had predicted, there may be an alternative in the works, in the form of [Bluetooth Low Energy](http://developer.android.com/guide/topics/connectivity/bluetooth-le.html) (BLE).

**No-Touch Control**

Using Android apps such as [Wave Control](https://play.google.com/store/apps/details?id=com.MarksThinkTank.WaveControl&hl=en), users can control their phones touch-free, using only gestures.

**Custom ROMs**

This is a big one. Because the Android operating system is open source, developers can tweak the current OS and build their own versions, which users can download and install in place of the stock OS. Some are filled with features, while others change the look and feel of a device. Chances are if there’s a feature you want, someone has already built a custom ROM for it.

 Storage and Battery Swap

Android phones also have unique hardware capabilities. Google’s OS makes it possible to remove and upgrade your battery or to replace one that no longer holds a charge. In addition, Android phones come with SD card slots for expandable storage.

Widgets

Apps are versatile, but sometimes you want information at a glance instead of having to open an app and wait for it to load. Android widgets let you display just about any feature you choose, right on the home screen—including weather apps, music widgets, or productivity tools that helpfully remind you of upcoming meetings or approaching deadlines.

<https://www.gazelle.com/thehorn/2014/02/10/the-android-operating-system-10-unique-features/>

(Will all be reworded in step 2)

Topic H – Limitations of your OS

* This freedom of customization is bound to create some problems in the near future. When a user can customize the phone to his/her heart's content, he/she is bound to make a mess. Before buying an Android smartphone, it is wise to have technical knowledge about the functioning of the system.
* Dates are not formatted according to user's format selection.
* Application icons are incorrect and non-functional. Clicking on one of the incorrect icons displays the error,

**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
  + Sub-Topic 1
    - Fact 1
    - Fact 2
    - …
  + Sub-Topic 2
    - …
  + …
* Topic B – Entertainment & Media Software
  + …

**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

A concept map can be created using the “Smart Ideas” application or PowerPoint or other applications. A concept map template can be downloaded from the “Topic A” folder on the class GitHub repository

