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Link : https://github.com/id4516/Assignment4/wiki/Assignment%234

# Summarizing what I've learned this semester <br>

![image 1](https://github.com/id4516/Assignment4/blob/master/Assignment4/Documentation/digital-technologies.jpg)

## Abstract : <br>

What I've learned from this course this year and how it helped me to have more knowledge in the work of computer science.<br>

## Introduction : <br>

I will talk about how the class affected me in the right way and how much it helped me to learn and correct a lot of new/old pieces of information. and what I've learned from the chapters we studied. <br>

## Chapter 1 : <br>

Chapter 1 was an introduction to today's technologies: <br>

first, we started by understanding the difference between a laptop, a computer, a tablet, and a server, then we shifted to understanding the purpose of use of those technologies such as the use of a smartphone, digital camera, e-book readers, and game devices, we described the definition between a data and a piece of information, we also went over and explained the different input types. We understand the difference between the web and the internet and we went over the relation between web, webpages, website, and web servers. and the last thing was to explain what a browser is, what is a search engine, and what is an online social network. <br>

## Chapter 2 : <br>

Chapter 2 was connecting and communicating online: <br>

First, we started by discussing the evolution of the internet, we also described the different broadband internet connections then we described what is the purpose of an IP address and the relationship that the IP have with the Domain name. We also described the features of a browser and identified the components of a web address then at the end of the chapter we went over and described the ways to write an effective text search <br>

## Chapter 3 : <br>

Chapter 3 was Discovering Computers Technology in a World of Computers, Mobile Devices, and the Internet <br>

First, we started by discussing and describing the characteristics and how to use a desktop, a laptop, a tablet, then we described the characters and the types of servers, we differentiate between POS terminal and Atm and self kiosk then we described the cloud servers and how they're used and the last thing in this chapter was describing the characteristics of the use of a smartphone, digital camera, portable media players and ebook reader. <br>

![image 2](https://github.com/id4516/Assignment4/blob/master/Assignment4/Documentation/csis-banner.jpg)

## Chapter 4 : <br>

Chapter 4 was Programs and apps <br>

First, we identified the different categories of program and apps then we described the interaction of an operating system with applications and hardware then we differentiate the ways to acquire programs and apps, we identified the key features of the applications than at the end we identified the features of multi-media and graphics applications. <br>

## chapter 5 : <br>

Chapter 5 was Digital safety and security <br>

First, we started by identifying how to keep hardware safe from theft, vandalism, and failure, then we explained how is possible the options available for backing up then we identified all the risks and the safeguards that are associated with all types of wireless communications, we identified green computing, codes of conduct and property of right and at the end of the chapter, we discussed the problem that faces the information privacy. <br>

![image 3](https://github.com/id4516/Assignment4/blob/master/Assignment4/Documentation/cis-hero1.jpg)

## Chapter 6 : <br>

Chapter 6 is computing components <br>

in this chapter we started by describing the device cases for mobile and computer and the content that they protect then then we went over multi-core processors, components of the processor, and what are the four steps in a machine circle, we also identified the character of the personal computer CPUs that are available in the market and the way they are cooled, we also went over the services of cloud computing then we defined what a bit is and how a regrouping of bits represent a data, we explained how program and application instructions move to and out of the memory, we differentiate the types of memories and we describe the use of adapter card, USB adapters, the function of a bus and power supply and batteries than at the end we described how to care for computer and mobile devices <br>

## chapter 7 : <br>

in chapter 7 we will talk about a different type of input and output,

first, we started by talking about a different type of keyboards and how they work, then we spoke about pointing devices then we moved on to different types of mouses and joysticks then we spoke about the sources of data information and the magnetic ink character, then we talked about scanners, and optical character recognition devices as a barcode reader or textbook readers then at the end we spoke about voice input and output

## chapter 8 : <br>

chapter 8 is digital storage <br>

we started by differentiating between what is stored and what is a memory, then we described the functions of internal hard disk and solid states drives then we identified uses of external hard disks and raids and we knew the difference of the different type of memory card then we discussed the benefits and uses of storage cloud storages, we described the characteristics and we knew the different types of optical discs, then at the end, we explained the types of storages that an enterprise have and we identified the use of magnetic cards, smart cards, NFC and RFID tags <br>

## chapter 9 : <br>

Chapter 9 is operating systems <br>

we started our chapter by explaining the purpose of an operating system, we described what is a start-up process and what are the shutdown options on computer and mobile devices, then explained how the interface is provided by the operating system and how it operates and manage memory and coordinate tasks, then described how the operating system gives the right to the user to configure the device and make an internet connection and monitor performance then identified file management. then explained how an operating system enables users to control a network and security then we went over the features of several desktop operating systems and we briefly described different types of server operating systems and in the end, we just summarized the features and users of mobile operating systems. <br>

![image 4](https://github.com/id4516/Assignment4/blob/master/Assignment4/Documentation/computinginfotechprogram.jpg)

## chapter 10 : <br>

Chapter 10 is communicating digital content <br>

in this chapter we started by discussing the purpose of all the components that are required for successful communication then we knew what is the difference between a Wan, Lan, Man, Pan, then we saw the difference between client and server and peer to peer network then we explained the purpose of the communication software and the network communication standards. we saw a description of different types of communication lines then we describe the most used communication devices and the way to set up a home network, we saw the difference between physical media transmission and wireless media transmission

## Chapter 11 : <br>

Chapter 11 is talking about building solutions <br>

the chapter started by giving the difference between character, record, field, and data file then we saw the difference between file processing systems and data approach, then the description of web use of a database, types of database, and big data. we discussed the common functions of most database management system, we define system development and gave the phases of system development and we identified the guidelines for system development, then we discussed the importance of project management and also feasibility assessment and documentation then we discussed the purpose of all the tasks made in each system, development phase; we saw the difference between low level and procedural level then we went over the benefits of objects oriented programming and development tools. at the end of the chapter, we saw the various ways to develop web pages and web applications. <br>

## Chapter 12 : <br>

Chapter 12 is number system <br>

in this chapter we started by talking about the nonpositional number and positional number then we moved to a binary and decimal number, octal and hexadecimal number, we went over converting a number's base and this means to transfer a base to a decimal base and a decimal base to any other type of base then the last thing was some base to any other type of bases, then we went over methods for converting binary to octal number, then octal to a binary number and then binary to hexadecimal and verse versa and the last thing in this chapter was to know the fractional number in the binary system. <br>

##chapter 13 : <br>

chapter 13 is registers . <br>

In this chapter we will only speak about CPU , Memory , Registers , Clock speed , cache memory and data bus <br>

![image 5](https://github.com/id4516/Assignment4/blob/master/Assignment4/Documentation/computer-information-systems-vs-information-technology-illustration.jpg)

## Assignments :

Assignment number 1 i worked on Android Vs IOS applications <br>

Assignment number 2 i worked on Multithreading in Operating Systems <br>

Assignment number 3 i worked on Ms-Access Database With MySql Queries <br>

## Project : <br>

I'm with a group of people and we will work on the development of 5G all over the world.

## Methodology: <br>

I've learned a lot in this class from slides , exam and the assignments we did in this class and also the project about 55G that im worked on with my classmates

## Result : <br>

Improve My knowledge and refreshed my information about computer information science with doing assignments , working on a project and going over the slides in class and outside of the class. <br>

## Conclusion : <br>

I concluded that this class was a great one this semester i've learned a lot of new stuff that i will use in mu future classes in the CIS field

## Future Works : <br>

Taking more classes in CIS to have more knowledge in this field <br>

## References : <br>

Slides and knowledge in class <br>