Module 2 Glossary

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New terms and their definitions: Course 1 Week 2

Address bus: Connects the CPU to the MCC and sends over the location of the data, but not the data itself

ATA: The most common interface that hard drives use to connect to our system

ATX (Advanced Technology eXtended): The most common form factor for motherboards

Backward compatible: It means older hardware works with newer hardware

Bios (Basic Input Output Services): The BIOS is software that helps initialize the hardware in our computer and gets our operating system up and running

BYOD (Bring Your Own Device): Refers to the practice of allowing people to use their own personal devices for work

Cache: The assigned stored location for recently or frequently accessed data; on a mobile app it is where anything that was changed or created with that app is stored

Charge cycle: One full charge and discharge of a battery

Chipset: It decides how components talk to each other on our machine

Clock cycle: When you send a voltage to the clock wire

Clock speed: The maximum number of clock cycles that it can handle in a set in a certain time period

Clock wire: When you send or receive data, it sends a voltage to that clock wire to let the CPU know it can start doing calculations

CPU: Central processing unit

CPU sockets: A CPU socket is a series of pins that connect a CPU’s processor to the PC’s motherboard

Data sizes: Metrics that refer to data sizes including bit, byte, kilobyte, kibibyte, and megabyte

DDR SDRAM (Double Data Rate SDRAM): A type of RAM that is faster, takes up less power, and has a larger capacity than earlier SDRAM versions

Desktop: The main screen where we can navigate our files, folders, and applications

DIMM: Dual Inline Memory Module

Display port: Port which also outputs audio and video

DRAM: Dynamic Random Access Memory

Drivers: The drivers contain the instructions our CPU needs to understand external devices like keyboards, webcams, printers

DVI: DVI cables generally just output video

Electrostatic discharge: Electrostatic discharge is a sudden and momentary flow of electric current between two electrically charged objects caused by contact, an electrical short or dielectric breakdown

External Data Bus (EDB): It's a row of wires that interconnect the parts of our computer

Factory reset: Resetting a device to the settings it came with from the factory

Form factor: A mathematical way to compensate for irregularities in the shape of an object by using a ratio between its volume and height

Hard drive: It is a long term memory component that holds all of our data, which can include music, pictures, applications

Hardware: External or internal devices and equipment that help you perform major functions

HDD (Hard disk drive): Hard disk drives, or HDDs, use a spinning platter and a mechanical arm to read and write information

HDMI: A type of cable that outputs both video and audio

Heatsink: It is used to dissipate heat from our CPU

Instruction set: A list of instructions that our CPU is able to run

ITX (Information Technology eXtended): A form factor for motherboards that is much smaller than ATX boards

Land Grid Array (LGA): It is a type of CPU socket that stick out of the motherboard

Lightning adaptor: One of the standard power, data and display connector types used in mobile devices

Mb/s: megabit per second, which is a unit of data transfer rate

Memory controller chip (MCC): A bridge between the CPU and the RAM

Micro display port: One of the standard power, data and display connector types used in mobile devices

Micro HDMI: One of the standard power, data and display connector types used in mobile devices

Micro USB: One of the standard power, data and display connector types used in mobile devices

Mini HDMI: One of the standard power, data and display connector types used in mobile devices

Mini USB: One of the standard power, data and display connector types used in mobile devices

Motherboard: The body or circulatory system of the computer that connects all the pieces together

Northbridge: interconnects stuff like RAM and video cards

NVMe (NVM Express): interface standard which allows greater throughput of data and increased efficiency

Overclocking: it increases the rate of your CPU clock cycles in order to perform more tasks

PCI Express: Peripheral Component Interconnect Express

Peripherals: the external devices which we connect to our computer that add functionality, like: a mouse, a keyboard, and a monitor

Pin Grid Array (PGA): CPU socket where the pins are located on the processor itself

Ports: Connection points that we can connect devices to that extend the functionality of our computer

POST (Power On Self Test): It figures out what hardware is on the computer

Power supply: Converts electricity from our wall outlet onto a format that our computer can use

Programs: Basic instructions that tell the computer what to do

RAM: Random Access Memory

Registers: An accessible location for storing the data that our CPU works with

Reimaging: The process of reimaging involves wiping and reinstalling an operating system using a disk image which is a copy of an operating system

Return merchandise authorization (RMA): The process of receiving returned merchandise and authorizing a refund

ROM chip (Read Only Memory): A read-only memory chip where the BIOS is stored

RPM: Revolutions per minute

Safe operating temperature: The temperature range in which rechargeable batteries must be kept in order to avoid demanage

SATA: The most popular serial ATA drive, which uses one cable for data transfers

SDRAM: It stands for Synchronous DRAM, this type of RAM is synchronized to our systems' clock speed allowing quicker processing of data

SOC (System On a Chip): Packs the CPU, Ram, and sometimes even the storage onto a single chip

Southbridge: It maintains our IO or input/output controllers, like hard drives and USB devices that input and output data

SSD: Solid State Drive

Standoffs: Used to raise and attach your motherboard to the case

Thermal paste: A substance used to better connect our CPU and heat sink, so the heat transfers from to the other better

Type-C connector: A type of USB connector meant to replace many peripheral connections

UEFI: United Extensible Firmware Interface

USB (Universal Serial Bus): A connection standard for connecting peripherals to devices such as computers

USB-C adapter: One of the standard power, data and display connector types used in mobile devices

Terms and their definitions from previous weeks

A

Abstraction: To take a relatively complex system and simplify it for our use

Algorithm: A series of steps that solves specific problems

ASCII: The oldest character encoding standard used is ASCII. It represents the English alphabet, digits, and punctuation marks

B

Binary system: The communication that a computer uses is referred to as binary system, also known as base-2 numeral system

Byte: A group of 8 bits

C

Character encoding: Is used to assign our binary values to characters so that we as humans can read them

Computer: A device that stores and processes data by performing calculations

Cryptography: The overarching discipline that covers the practice of coding and hiding messages from third parties

D

Decimal form- base 10 system: In the decimal system, there are 10 possible numbers you can use ranging from zero to nine

Digital divide: The growing skills gap between people with and without digital literacy skills

I

Information technology: The use of digital technology, like computers and the internet, to store and process data into useful information

L

Linux OS: Linux is one of the largest an open source operating systems used heavily in business infrastructure and in the consumer space

Logic gates: Allow transistors to do more complex tasks, like deciding where to send electrical signals depending on logical conditions

O

Open source: This means the developers will let other developers share, modify, and distribute their software for free

P

PDA (Personal Digital Assistant): Allows computing to go mobile

Punch cards: A sequence of cards with holes in them to automatically perform calculations instead of manually entering them by hand

R

RGB model: RGB or red, green, and blue model is the basic model of representing colors

U

UTF-8: The most prevalent encoding standard used today

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