How to build a computer:

* Planning (Part selection)
  + Intro: Budget and overview of parts
    - 3-6 hundred for an office computer (w/out GPU)
    - 7-12 hundred for gaming computer
    - 12-30 hundred for enthusiast gaming computer
  + CPU
    - What is a CPU?
    - We will be sticking with AMD due to their best price to performance
    - If you are not making a computer with a gpu you will need an APU rather than a CPU
    - Ryzen series / models
    - CPU Cores
    - Clock Speed
  + RAM
    - What is Ram?
    - Capacity (How much do you need?)
    - How many sticks do you need?
    - What clock speed do you need?
  + GPU
    - What is a GPU?
    - If you are using an APU you can skip this step
    - We will be using NVIDIA because they offer the best performance for gaming
    - RTX vs GTX
    - Clock Speed
    - Memory
    - Normal Vs Super Vs TI
    - GTX 1600 series overview
      * 1650
      * 1660
    - RTX 2000 and 3000 series overview
      * 60s
      * 70s
      * 80s
      * 90s
  + Storage
    - What are the types of storage?
      * Hard drive vs SSD vs Hybrid
        + Hard drive Speed (Faster is better)
      * Interface/form factor
      * Capacity
  + Cooling / Case / Power
    - Most electronics damage around 85 – 100 degrees Celsius (185 -212 Fahrenheit)
    - Think Aerodynamics for cooling
      * fans create a positive pressure in front of them and a negative pressure behind
      * Air wants to travel from high to low pressure
      * Research whether the cooler included is enough for the CPU
        + If it is not, buy a better one. Some recommended brands are Arctic and Noctua.
        + Most CPU Coolers will come with thermal paste. If yours does not, be sure to buy some. A recommended brand is Noctua.
      * All GPUs and Power supplies will come with their own cooler, but you still want to maximize airflow to them
    - Power
      * What is a power supply?
      * Use a power supply calculator such as outervision.com to calculate the recommended wattage of your power supply
      * Power supplies are the most likely part of the system to fail, so do not buy a power supply under 50 dollars.
      * A failing power supply has a high chance to damage or destroy other components
      * Some recommended brands for a power supply are Corsair, Be quiet, EVGA, and Fractal Design
      * Efficiency is measured in percentage – High efficiency power supplies will waste less electricity, thereby being more environmentally friendly and less expensive to run.
  + Motherboard/RGB
    - What is a Motherboard?
    - AM4 Socket
    - DDR4 Ram
    - ATX Form Factor
    - Chipset
    - What connectivity do you need?
      * PCIE
      * SATA
      * M.2
    - Are you going to be connecting RGB?
  + Cases
    - Ensure your case is the same form factor as your motherboard (ATX, Mini-ATX, etc.)
    - If your case has RGB, make sure that your motherboard has RGB Ports
    - cases with more airflow allow for more cooling, but are usually more expensive
    - Find a case with either included case fans or the ability to mount them