1. A computer is a rock(silicone) which is tricked into following directions and conduct calculations using electricity. The main components of a computer hardware is the CPU, bus, RAM, Hard drive like an SSD or HDD or NVME, a motherboard, network card, io ports(the thing that connects the computer to a mouse and keyboard and lastly for some reason, not mentioned on the textbook a GPU. A separate GPU or one that's built into the CPU is necessary for an output into a monitor.
2. The compilation process turns a high level language like java into binary which a computer can read and vice versa.
3. An interpreter is what the computer or IDE uses to translate binary language into a complex language like Python. A compiler does turn a complex language into binary as a computer can only read 1s and 0s.
4. A Java Virtual Machine turns Java code into Java bytecode which allows the code to be run on different platforms and operating systems. It is why the Java code can be run on a browser.
5. Definitions
   a. High level language is something that humans can read and understand easily, like how Python is similar to English.
   b. Machine Language is 1s and 0s which a machine can understand, like Assembly.
   c. Software Development is the process of asking a client what they want, writing a contract on the requirements, designing and then making the code and lastly, maintaining the code.
   d. Programming is just the writing of code using a KEYBOARD. Copying and pasting doesn't count.
   e. An algorithm is a code that can do stuff like calculating what 2+2 is.
   f. A compiler is what the computer uses to translate between Python and Assembly as the user cannot understand Assembly and the computer cannot understand Python.
   g. Java virtual machine is basically running code on a cloud instead of your hardware, this allows you to run the same code on multiple platforms and operating systems like on Linux and Windows.
   h. Source file is where the main code comes from. Basically the .Java file.
   i. Object file is the file that contains the machine language, basically bytecode like the .class files.
   j. Operating system is what is used to run your hardware the most efficiently, like windows, linux and macos.
   k. A Java library is a premade code(tool) you can call and use like java.util.Scanner.