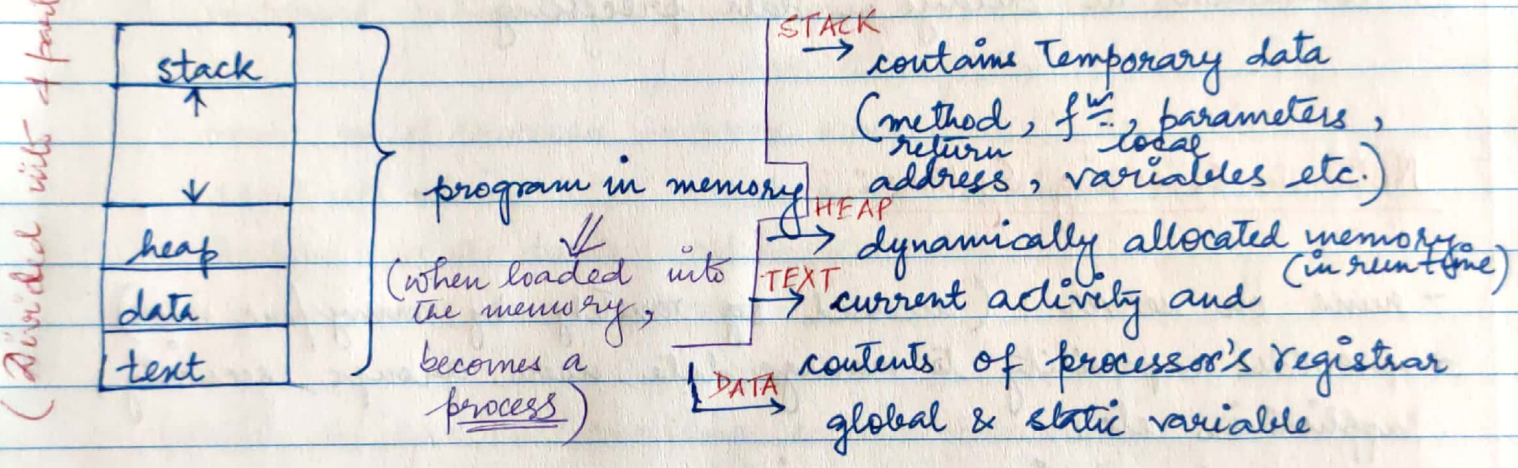
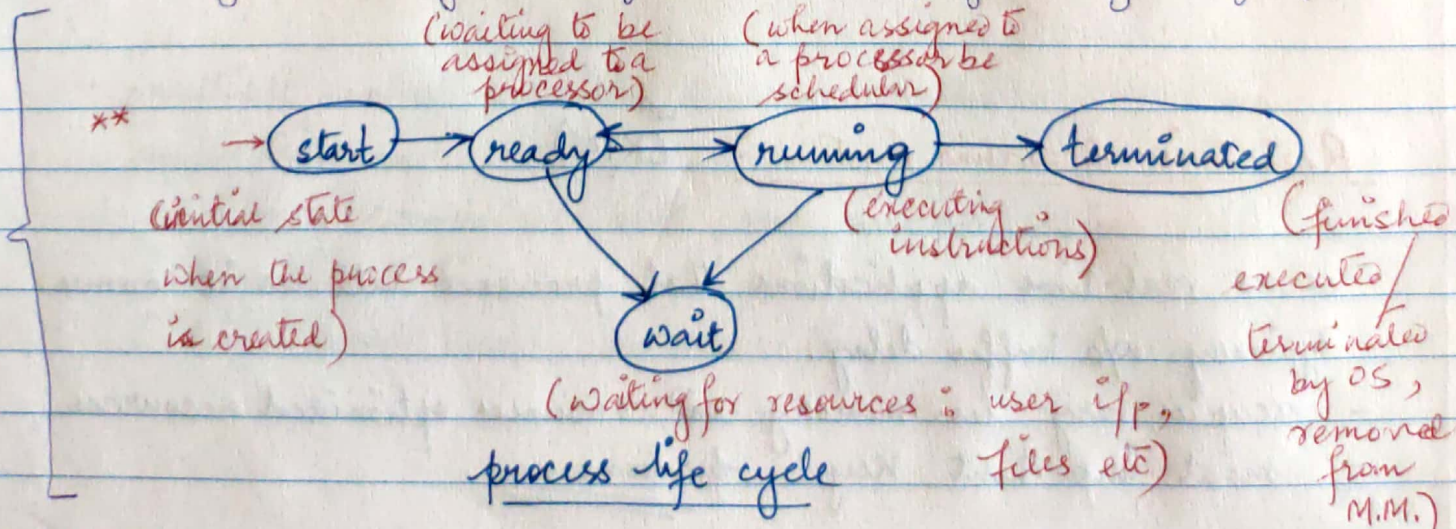
Process: - dynamic instance of a program.
- program in execution
- entity which represents the basic unit of work to be implemented in the system.

↗ basic unit of work

eg.
suppose write a computer program in .txt file. When it is executed it ~~is~~ becomes a process which performs all tasks mentioned in the program code.



Program: - piece of code (single line or multiple line)
- collection of instructions that performs specific task when executed by computer.
- usually written by a programmer in programming language.



process life cycle

PCB : (Process Control Block)

- data structure maintained by OS for every process (like id card)
- identified by PID.
- keeps all details of process.
- gets deleted only when the process is terminated.

properties:
- process state (ready/running/waiting etc)
- process privileges (allow/disallow to access system resources)
- PID (unique)
- pointer (pointer to parent process)
- program counter (pointer to address of next instruct^{n})
- CPU Registers
- CPU scheduling info (process priority etc)
- Memory mgmt info (page table, mem. limit, segment table)
- Accounting info (amount of CPU used, time limit, execution ID)
- I/O status info (list of I/O devices allocated)

NOTE:
- A part of a program, which performs a well-defined task, called algorithm.
- A collection of computer program, libraries, and related data are reffered to as s/w.