**DAY01**

Compilation System:  
\*preprocessing Phase: it includes header and expand macros, which means exporting the libraries of the header  
\*Compilation Phase: it checks semantic and syntax errors  
\*Assembly Phase: converts into binary form which is not runnable  
\*Linking Phase: file is ready to be loaded into the main memory and excuted  
->Process: tasks under execution  
->Thread: it is a light weight process and it is a part of process. Each process may contain multiple threads  
->multitasking: when we want to perform multiple task under one processor.  
->multiprocess: when we want to execute more than one process  
->multithreading: when we want to execute more than one function with in a single process  
->comments go under text segment in memory  
->functions are instack memory  
->Between software and hardware there will be an Operating System  
-> UNIX OS is made up of 3 parts :  
\*Kernel : Kernel is the part of os. It act as interface between hardware and process of computer.  
\*shell: shell is command interpreter of UNIX. . It act as interface between user and kernel.  
\*user:  
->Booting Process: It is the process which takes place when we off the and on the computer.  
Files:  
->file is a collection of data  
->file content are treated as series of bytes  
->devices are also treated as special file, file size can grow dynamically.  
->internally each file is assigned a unique identification number called INODE(Information node 0r index node).  
File Naming Conventions:  
->maximum file length depends upon the kernel configuration(255)  
->file names are case sensitive  
->embedded spaces and tab names are not allowed  
-> A file consists of only one INODE.

->INODE structure used to maintain information about the file  
Directory:  
->All the files are grouped together in the directory.  
->Factors that comes under etc,bin,usr,dev,lib,tmp,home.  
->bin under root is a executable file within os and bin under user is executable file install from third parties.  
Links-Hard Link:  
->hard links can be apply only on files.  
->it act as physical file  
-> if we delete the original file it will not effect the copy file  
Soft Link or Symbolic Link:  
->soft link can be apply for both file and directory  
->it act as short cut file  
-> if we delete the original file it will effect the copy file  
UNIX COMMANDS:  
->~$ ll = it will give the all available files and to see authentication of a file or to see a file is in which  
mode.  
->~$ mkdir sammu: Here sammu is the directory name which we want to create.

->$ cd sammu: change directory is used to change the directory to the current directory.  
\*Here we can see the directory is changed to current directory.  
->~/sammu$ touch file.txt: Here we are creating a txt file inside sammu directory.  
->~/sammu$ vi file.txt: The file will be open in vi editor and we can write.  
->~/sammu$ ls -l: It give non-hidden files .  
->~/sammu$ ls -la: it gives hidden files.  
->~/sammu$ ls -li: To know the INODE number of a file.  
\* Here 2597618 is the INODE number of a file file.txt.  
->~/sammu$ man mkdir: It will give us the manual page information about any command, like how to  
use the commonds.  
File Permissions in UNIX: There are three file permissions in unix  
\*read=x