

CSCM603127 System Programming

Week 3 – Logbook

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Stat System Call

- Stat() is a special system call that returns the information of a file attribute which is available in the inode table.
- In Unix, there are 3 main stat() function, stat() itself, lstat(), and fstat().
- The lstat() command is a special stat system call that if it receives a symbolic link in the pathname argument, it will return the attribute of the link. While stat() command will return the target of the symbolic link if given the symbolic link.
- The fstat() command is a special system call that receives a file descriptor argument which then returns the attribute of the file itself.

File Type and Permissions

- S_ISREG: regular file
- S_ISDIR: directory
- S_ISCHR: character device
- S_ISBLK: block device
- S_ISFIFO: named pipe
- S_ISLNK: symbolic link
- S_ISSOCK: socket

File Descriptors

- An identifier of a currently open file in a computer