

# SEMINAR 7

## FILE AND FD ATTRIBUTES

**STAT**

**SHOWS INFO  
ABOUT FILE**

# INFO VIA SYSCALLS

- > STAT
- > FSTAT
- > LSTAT

# TYPES OF FILES

- > REGULAR FILE
- > DIRECTORY
- > SYMBOLIC LINK
- > BLOCK AND CHARACTER DEVICES
  - > FIFOS AND SOCKETS

USEFUL CONSTANTS  
AND MACROS  
MAN 7 INODE

**ACCESS OFFERS  
SIMPLER WAY  
OF CHECKING PERMISSIONS**

# OTHER USEFUL SYSCALLS

- > **LINK** – CREATE NEW HARD LINK
  - > **UNLINK** – REMOVE
- > **SYMLINK** – CREATE NEW SYMLINK
  - > **READLINK** – READ SYMLINK
- > **MKDIR** – CREATE DIRECTORY
  - > TBC

# OTHER USEFUL SYSCALLS (PART II)

- > **RMDIR** – REMOVE EMPTY DIR
- > **CHMOD** – CHANGE ACCESS MODE
  - > **RENAME** – MOVE FILE



**FCNTL** ALLOWS  
TO MANIPULATE  
FILE DESCRIPTORS

**FLOCK** LETS YOU  
**LOCK** FILE  
TO OBTAIN EXCLUSIVE ACCESS

**DEMO**

**RACE CONDITION**