Review for Midterm #1

- Date: 10/9/24
- Covers:Note #1, 2, 3, 4, 5, 6, 7, 8, 9

Review for Midterm #1

- What is Linux
- What is GNU/Linux Project
- Introduction to C Programming
- C System Environment
- C compilers in Linux
- Linux System Roadmap
  - Header files
  - Libraries
    - Static Libraries: how to create static library with arv
    - Shared Libraries: how to create shared library with gcc

Review for Midterm #1

- Linux System Roadmap
- What is the shell
- Simple Bash Commands
- Redirecting Input and Output
- Pipeline
- Shell Scripts

Review for Midterm #1

- Shell Scripts
  - How to make executable
  - How to change mode
- Shell Syntax
  - Variables
  - Quoting
  - Environment Variables
  - Parameter Variables
  - Condition
    - The test or "[" command

Review for Midterm #1

- Control Structures in shell script
  - if statement
  - if-else-if statement
  - for loop statement
  - while loop statement
  - until loop statement
  - case statement

Review for Midterm #1

- Functions
  - Function with local variable
  - Function with return value
  - Bash recursive function
- Other Commands
  - break Command
  - continue Command
  - eval
  - exit
  - export
  - expr
  - printf
  - set
  - shift

Review for Midterm #1

- File System
  - File Name, File Structure, File Types, File Access, File Attributes, File Operation
- Directories
  - Directory Operations
- File System Layout
- Implementing File
  - Contiguous Allocation
  - Linked List Allocation
  - Linked List Allocation with File Allocation Table
  - Index-Node
- Implementing Directories
- Linux File Structure
- File Implementation in Linux

Review for Midterm #1

- System Call
- Library Functions
- File Descriptors for a Process
- System Call for Managing Files
  - write
  - read
  - open
  - close
  - lseek

Review for Midterm #1

- lseek() System call
- pread() pwrite System call
- File copy
- File Sharing
- dup() and dup2() System Cal
- Command Line Argument
- sat, fsat, lsat system Call
- ID's for a process
- File Access permission
- umask() System Call