

Please note that for LAB work book titled “*Unix Concepts and Applications, 4<sup>th</sup> Edition by Sumitabha Das*” will be followed. And the below mentioned assignments has been drafted from the different chapters of the above said book.

**LAB Assignment No.-1**  
**Operating Systems**  
**(UCS – 303)**

**In details explanation of the following commands and topics:**

1. Introduction to operating system
2. Introduction to Linux/Unix.
3. Architecture of Linux.
4. System Call execution.
5. Command structure.
6. **Chapter 1 and 2 from the above mentioned book.**

**LAB Assignment No.-2**  
**Operating Systems**  
**(UCS – 303)**

**In details explanation of the following commands and topics:**

1. Concept of Shell.
2. Types of Shell.
3. **ls** command and its options.
4. **>** option for directing the output of a command.
5. Introduction and options for **Cat** command
6. Feeding output of one command to another by pipeline.
7. Ways for signing off from Linux.
8. Locating commands
9. PATH and SHELL variable
10. Combining the commands.
11. **echo** and **echo -e**
12. **Cal** and **Date** command with its different options.
13. **man** and **help** command
14. Using escape sequence.
15. **Printf** in Linux
16. **Chapter 1 and 2 from the above mentioned book.**

**At least 5 Example programs from the mentioned book and from your own side.**

**LAB Assignment No.-3**  
**Operating Systems**  
**(UCS – 303)**

**In details explanation of the following commands and topics:**

1. Internal and External commands
2. Commands - passwd, who, uname, tty, stty
3. Types of files and file system in Linux.
4. Directory structure in Linux
5. HOME variable
6. Commands - pwd, cd, mkdir, rmdir,
7. Absolute and relative pathname
8. Using . and ..
9. Commands - Cat, cp, rm, mv, wc, comm, cmp, diff
10. Compressing and archiving files (zip, tar).
11. **Chapter 3 and 4 from the above mentioned book.**

**At least 5 Example programs from the mentioned book and from your own side.**

**LAB Assignment No.-4**  
**Operating Systems**  
**(UCS – 303)**

**In details explanation of the following commands and topics:**

1. Basic file attributes: ls -l, -d option.
2. File permissions and changing the access rights.
3. Relative and absolute permission.
4. Directory permission.
5. Changing file ownership.
6. Changing group of a particular file.
7. **Chapter 3 and 4 from the above mentioned book.**

**At least 10 Example programs from the mentioned book and from your own side.**

**LAB Assignment No.-5**  
**Operating Systems**  
**(UCS – 303)**

**In details explanation of the following commands and topics:**

1. **vi** Editor and its basics.
2. Repeat factor.
3. Input mode and insertion of text.
4. Saving text and quitting.
5. Navigation.
6. Editing text.
7. Undo last editing.
8. Repeating last command.
9. Searching for a pattern.
10. Substitution – search and replace.
11. **Chapter 5 and 6 from the above mentioned book.**

**At least 3 Example programs from the mentioned book and from your own side.**