

# Shell Programming

A Necessity for all Programmers

## sort, cut, and grep commands

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# You will learn how to use ...

- sort
- cut
- grep

- sort lines of text in ascending or descending order
- **sort** <Options> <File(s)>
- Options
  - without options: sorts lines of a text in ascending order
  - -o outputfile: copies the sorted contents to the output file
  - -u: output only unique lines after sorting
  - -m: merge the sorted files
  - -r: reverse sort
  - +n -(n+1): sort on the nth column
  - -n: numeric sort

- The cut command can be used to view certain fields
- **cut <Options> <File>**
- Options
  - -f : for extracting certain fields
  - -c: for extracting columns
  - Example 1: **cut -f 1,4 students.txt**
  - Example 2: **cut -f 1-3 students.txt**
  - Example 3: **cut -c 1-4 students.txt**

- grep searches for pattern in each file
- **grep <Options> <Pattern> <File>**
- Options
  - -c : counts the number of lines where such a pattern occurs
  - -v: displays those lines which do not contain the pattern
  - -i: ignores case while searching
  - -n: displays line number
  - -l: displays files containing the text

- Search Patterns

- `.(dot)`: matches any one character
- `.*`: zero or any number of characters
- `[chars]` : matches any one of a set of characters
- `[char-char]`: matches any one of a range of characters
- `^ chars`: matches a set of characters occurring at the beginning of each line
- `[^ char-char]`: matches any character other than specified in the character set
- `chars$`: matches a set of characters occurring at the the end of each line

# Now, you can use...

- `sort`: to sort the contents of the file in a lexicographic order
- `cut`: to extract certain fields from the file content
- `grep`: to extract lines containing specified patterns

# Thank you

