sed and awk
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sed description
- pattern a text → add to output
- address s /regex/replacement/
- address d → delete line
- delete lines 1-10: sed -e '1,10d'
- delete comments: sed -e '/^#/d'
- print only matching: sed -n -e
  '/regexp/p
- convert Unix to DOS: sed -e
  's/$/\r/' myunix.txt > mydos.txt

awk
- Special-purpose language for line-oriented pattern processing
- pattern {action}
- action =
  • if (conditional) statement else statement
  • while (conditional) statement
  • break
  • continue
  • variable-expression
  • print expression-list

awk examples
- Add up first column, print sum and average
  \{s += $1 \} END \{print "sum is", s, "average is", s/NR\}
- Print all lines between start/stop words: /start/,/stop/
- Print all lines whose first field differs from previous one:
  $1 != prev \{print; prev = $1\}
awk applications

- Unix file processing, e.g., as part of a pipe
- avoid read loop in shells, Perl
- more intuitive syntax than shell scripts
- best limited to line-at-a-time processing