



ALBERT-LUDWIGS-
UNIVERSITÄT FREIBURG

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Distributed Storage and

Computer Forensics

SED



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- ❑ To automate editing actions on one or more files.
- ❑ To simplify the task of performing the same edits on multiple files.
- ❑ To write conversion programs.

AWK



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- ❑ Transforms data into a formatted report
- ❑ Use variables to manipulate the database.
- ❑ Use common programming constructs such as loops and conditionals.
- ❑ Work more easily with multiple input streams.

Sample Mailing List



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John Daggett, 341 King Road, Plymouth MA

Alice Ford, 22 East Broadway, Richmond VA

Orville Thomas, 11345 Oak Bridge Road, Tulsa OK

Terry Kalkas, 402 Lans Road, Beaver Falls PA

Eric Adams, 20 Post Road, Sudbury MA

Hubert Sims, 328A Brook Road, Roanoke VA

Amy Wilde, 334 Bayshore Pkwy, Mountain View CA

Sal Carpenter, 73 6th Street, Boston MA



Multiple substitutions

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- MA → Massachusetts
- PA → Pennsylvania
- CA → California

1. `#sed 's/ MA/, Massachusetts/; s/ PA/, Pennsylvania/; s/ CA/, California/' list`
2. `#sed -e 's/ MA/, Massachusetts/' -e 's/ PA/, Pennsylvania/' -e 's/ CA/, California/' list`
3. `#sed '
s/ MA/, Massachusetts/
s/ PA/, Pennsylvania/
s/ CA/, California/' list`

Print



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- Print entries from MA
- Print first name from MA
- *# awk ,/MA/ ' list*
- *# awk ,/MA/ { print \$1 } ' list*

Sample File



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Muenchen - Nuernberg	3 : 2	34000 Zuschauer
Kaiserslautern - Moenchengladbach	2 : 1	28260 Zuschauer
Uerdingen - Homburg	3 : 0	10000 Zuschauer
St.Pauli - Bremen	0 : 0	20600 Zuschauer
Leverkusen - Dortmund	1 : 0	22000 Zuschauer
Stuttgart - Karlsruhe	2 : 0	34000 Zuschauer
Bochum - Koeln	0 : 1	21000 Zuschauer
Frankfurt - Waldhof	3 : 1	20000 Zuschauer
Duesseldorf - HSV	1 : 1	35000 Zuschauer

Other usefull AWK fields



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- ❑ NF: Number of fields
- ❑ \$NF: Content of the last field
- ❑ \$NR: Number of the record

AWK can more



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- ❑ Print all teams that have won in the home town
- ❑ Print all games that have no score draw
- ❑ Print all games where the home team won and there where more than 20.000 viewer
- ❑ Count the nummer of games that was one by the guest team
- ❑ # awk , \$4 > \$6 {print \$1}' bundesliga
- ❑ # awk , \$4 == \$6 { print \$1, „ – „, \$3, \$4 „:“ \$6 }‘
- ❑ # awk , \$4>6 && \$7>200000‘
- ❑ \$6 > \$4 {guest = guest +1}
END { print guest, „ guest teams have won“ }