BASIC LINUX COMMANDS

Execution of commands in linux Terminal:DAY-1 COMMANDS

Date & Time Commands, Math & Calculator Commands, File and Directory Commands, Sequence & Pattern Generation, File Permission & Listing, Piping & Redirection.

```
mariapunya@LAPTOP-9BH6N
mariapunya@LAPTOP-9BH6M92I:~/new$ history
        passwd
    2
        sudo su
        passwd
        sudo su
        sudo apt update
        sudo apt update
        sudo apt upgrade
        cd stepin
   10
        cat sample.txt
        nano f1
   11
        nano f2
   12
   13
        cat f1
        cat f2
        paste f1 f2
paste -d ':' f1 f2
paste -s f1 f2
   15
   16
   17
        nano sed_test
        car sed_test
   19
        cat sed_test
sed 's/Hello/Hi/' sed_test
sed 's/hello/Hi/' sed_test
sed -i 's/hello/Hi/' sed_test
   20
   21
   23
        cat sed_test
sed 's/!/$/g/' sed_test
sed 's/!/$/g' sed_test
   24
   25
26
        cat sed_test
        sed '/simple/d' sed_test
sed '/Hi/a welcome to sed/' sed_test
   28
   29
   30
        cd
   31
        clear
        ls -l
ls -l
   33
        chmod u+x
   34
        chmod o-r f1
ls -l f1
   35
   36
        chmod 462 f1
   37
   38
        ls -l f1
        history
   39
   40
        date
   41
        sudo apt update
        sudo apt upgrade
   43
   44
        clear
        echo $SHELL
   45
   46
        printenv SHELL
        .
whoami
   47
   48
        whatis echo
        whatis printenv
   49
   50
        whatis whoami
        whatis cat
   52
        whereis cat
        whereis gcc
   53
        info cat
        sudo apt install gcc
```

```
mariapunya@LAPTOP-9BH6N ×
                                            +
      sudo apt install gcc
  55
  56
      clear
      sudo apt install build-essential
  57
  58
      date
  59
      date "+%D"
      date "+%D%T"
  60
      date --date "tomorrow"
date --date "2 years ago"
  61
  62
  63
       man date
  64
      clear
 65
      cat
 66
      cal
       sudo apt install ncal
  67
  68
      cal
      cal 7 2025
cal 2025
cal -3 2025
cal -3
  69
  70
  71
 72
  73
      clear
  74
      ps
       .
exit
  75
  76
      bc
      bc<<<"12/5"
  77
  78
      uname
  79
       uname -o
  80
       uname -i
  81
      uname -n
  82
       uname -v
      uname -s
 83
      uname -m
 84
       uname -r
 85
  86
      uname -a
      echo "Welcome to Linux"
echo -e"Hello \t World"
echo -n"Hello World"
echo 'date'
echo "This is
  87
  88
 89
 90
  91
  92
       linux
      training
  93
  94
      for
      notchuo
 95
       july 2025"
 96
 97
       echo
 98
      seq
  99
      clear
      ls -l
ls -a
ls -R
 100
 101
 102
 103
       nano demo
 104
       wc demo
 105
       touch newfile.txt
      nano newfile.txt
cat newfile.txt
cat newfile.txt
cat output.txt
 106
 107
 108
 109
```

```
mariapunya@LAPTOP-9BH6N X
     mkdir training
112 cp newfile output.txt training
113 cp newfile.txt output.txt training
114 cd training
116
      cd
      ld
117
118
      ls
119 ls -R
     co -r new training
120
121 cp -r new training
122 mv output.txt out
123 ls
124 mov out training
126
     cd new
127 ls
128
     cd
129
      vi sum.c
      history
130
131
     vi sum.c
132 gcc sum.c && ./a.out
133 find ~ -name "sum.c"
134 cd ~/notchupJul25
135
      ls
136
      gcc sum.c -o sum && ./sum
      vi sum.c
137
138 sudo apt install update
139 sudo apt install gcc
140 gcc ifelse.c
141 107 touch newfile.txt
                                            # Creates an empty file named newfile.txt
      108 nano newfile.txt
                                            # Opens file in nano editor (edit/save using Ctrl+O, Ctrl+X)
142
143
      109 cat newfile.txt
                                            # Displays contents of newfile.txt
      110 cat newfile.txt > output.txt # Copies contents into output.txt
144
                                           # Shows content of output.txt
# Shows contents of 'demo' file with line numbers (file must exist)
145
      111 cat output.txt
      112 cat -n demo
touch newfile.txt
nano newfile.txt
146
147
148
      cat newfile.txt
149
      vi sum.c
echo $SHELL
150
151
152
      whoami
153
      whatis cat
154
      whatis gcc
155
      whereis cat
156
      whereis gcc
157
      info cat
158
      sudo apt update
      sudo apt upgrade
159
      sudo apt install build-essential
sudo apt install gcc
160
161
     sudo apt install gcc
sudo apt install g++
date; uname -r; whoami
date && whoami
date "+%D"
162
163
164
165
```

```
+ ~

    mariapunya@LAPTOP-9BH6N 

    ×
167
     date "+%Y - %m - %d"
     date "+%Y/%m/%d"
168
     date "+%d/%m/%Y"
169
     date "+%A %B %d %Y %T"
170
     info date
171
     date --date "tomorrow"
date --date "2 years ago"
172
173
174
     cal
175
     cal 10 2025
176
     cal 2025
177
     cal -3
178
     bc
     bc <<< "12/5"
179
180
     bc <<< "2^10"
181
     uname -o
     uname -i
182
     uname -n
uname -v
183
184
     uname -s
185
186
     uname -m
187
     uname -r
188
     uname -a
189
     echo "Welcome to Linux Training"
     echo -e "Hello \t World"
190
     echo -n "Hello world"
191
192
     echo "Welcome to \"Linux Training\""
     echo 'date'
193
     echo "Welcome to
194
     Linux
195
196
     Training"
     echo "Welcome to
197
198
     \"Linux\"
199
     Training"
200
     seq 1 10
     seq 1 3 10
201
     seq 10 -1 1
202
203
     seq 20 -2 1
     seq -s " " 10
204
         " " 5 10
205
     -5
     -s " " 5 3 15
206
     rev <<< linux training
207
     seq -s " " 5 10
208
     seq -s " " 5 3 15
209
210 history
     seq 1 3 10
date --date "2 years ago"
211
212
     echo $?
213
214
     unam -r
215
     echo $?
216
     date
     echo $?
217
218
     man cat
219
     nano test
220
     echo $?
     unam -r
221
     echo $?
222
```

```
223 date
224 echo $?
225 man cat
226 ls
227 cd train
228 ls
229 cd new
230 cd ..
231 cd new
232 cd
233 cd -
       ls
cd training
234
       pwd
cd -
235
236
       pwd
237
       cd
238
239
       mkdir stepin
       cd stepin
240
       ls
241
      cd sdlc
242
       mkdir -p models/agile
243
244
       cd models
245
246
       cd
247
248
       ls -a
ls -R
249
250
251
252
253
254
       cd stepin
       cd agile
       cd models
cd agile
255
256
257
       wc cicd
266 wc this is day 2 of the training
wc this is day 2 of the training
wc cicd
258
259
260
       nano cicd
261
262
       WC
       echo "this is day 2 of the training" | wc
263
264
265
       touch newfile.txt
266
       ls
267
       nano newfile.txt
       cat newfile.txt
268
269
270
271
272
273
274
       nano cicd
cat cicd
cat cicd > new.txt
       cat new.txt
cat newfile.txt >> new.txt
275
276
277
278
       cat new.txt
       cat cicd > new.txt
       cat new.txt
       cat -n cicd
```

```
mariapunya@LAPTOP-9BH6N X
 278 cat -n cicd
 279
      cd ..
 280
      ls
 281
      cd..
 282
      cd
 283
      ls
 284
      pwd
ls
 285
 286
      nano demo
      nano newfile
 287
 288
      touch demo newfile
      cp demo newfile stepin/
 289
      mkdir -p stepin
 290
      cp demo newfile stepin
 291
 292
      ls
 293
      cd stepin
 294
 295
      cp -r training stepin
 296
 297
      ls
      cp -r training stepin/
echo "This is training content"
 298
 299
      cp -r training stepin/
cp demo newfile stepin
ls
 300
 301
 302
 303
      cd stepin
 304
      ls
 305
      cp -r training stepin
 306
      cd ~
      cp -r training stepin
cd stepin
 307
 308
 309
 310
      cd
 311
      ls
 312
      cd stepin
 313
      ls
 314
      mv newfile git
      ls
 315
      cd git
 316
 317
 318
      mv newfile Day2
      ls
 319
      rm Day2
ls
 320
 321
 322
      cd
 323
      ls
 324
      rm n∗
      ls
 325
 326
      rmdir new
      cd new
 327
 328
      pwd
 329
 330
      find ~ -type d -name "new"
     mkdir new
 331
 332 cd new
 333 rmdir new
   333
           rmdir new
   334
            cd new
335 history
mariapunya@LAPTOP-9BH6M92I:~/new$ |
```

DAY-2 COMMANDS

File Editing & Viewing, Pattern Searching, Data Extraction & Reporting (awk), File Permissions

```
mariapunya@LAPTOP-9BH6N X
     nano filecmd
355
      more filecmd
 356
 357
      less filecmd
     head filecmd
 358
     head -n 5 filecmd
359
     tail filecmd
360
 361
      tail +5 filecmd
 362
      nano sample.txt
 363 cat sample.txt
 364 cut -c 1-3 sample.txt
365 cut -c 4-10 sample.txt
366 cat sample.txt
     cut -d ':' -f2 sample.txt
cut -d ':' -f2,3 sample.txt
367
 368
 369
      ls
 370
     cat demo
     nano f1
371
372
     nano f2
 373
     cat f1
 374
      catf2
 375
     cat f2
 376 paste fi f2
377 paste f2 f1
378 cat sample.txt
 379 sort sample.txt
     sort sample.txt -r
 380
     sort -t ':' -k2 sample.txt
sort -t ':' -k3 sample.txt
 381
 382
     sort -t ':' -k4 sample.txt
383
     sort -t ':' -k3 sample.txt -r
384
385
     cat sample.txt
      tr ':' '|' < sample.txt
 386
 387
      cat sample.txt
 388
     ls
     tr ':' '|' < sample.txt > s1.txt
389
390
 391
      cat s1.txt
     tr ':0' '|$' < sample.txt
 392
 393 cat sample.txt
     tr -s '0' < sample.txt
 394
 395
      cat sample.txt
```

```
396 tr -d '0' < sample.txt
  397 nano example.txt
  398
        cat example.txt
  399
        uniq example.txt
  400
        sort example.txt | uniq
  401
        nano example.txt
  402
        cat example.txt
  403
        uniq example.txt
        sort example.txt | uniq
        cmp sample.txt s1.txt
        diff sample.txt s1.txt
  406
  407
        nano test.c
  408
        cat test.c
  409
        grep main test.c
        grep ^main test.c
  410
       grep ^int test.c
  411
        grep \; test.c
  413
        grep printf test.c
  414
        nano sed_test
  415
        cat sed_test
        sed 's/Hello/Hi/' sed_test
  416
        sed -i 's/Hello/Hi/' sed_test
  417
        cat sed_test
  418
        sed 's/!/$/g' sed_test
  419
        sed '/simple/d' sed_test
  420
  421
        sed '/Hi/a Welcome to sed' sed_test
  422
        sed -n '/Hi/p' sed_test
  423
        nano employees.txt
  424
        cat employees.txt
        awk '{print $0}' employees.txt
  425
        awk '{print $0}' employees.txt
awk '{print $1, $3}' employees.txt
awk '$3 > 50000 {print $1, $3}' employees.txt
awk 'BEGIN {print "Name:, Salary:"} {print $1, $3}' employees.txt
awk 'BEGIN {print "Name Salary"} {print $1, $3}' employees.txt
awk 'BEGIN {print "Name Age Salary"} {print $1, $2, $3}' employees.txt
awk 'BEGIN {print "Name Age Salary"} {print $1, $2, $3}' employees.txt
awk '{total += $3} END {print "Total Salary=", total}' employees.txt
  426
  427
  428
  429
  430
  431
        awk '{print $0}' employees.txt
        awk '{print NR, $1}' employees.txt
  433
  434
        awk '{print NR, $0}' employees.txt
        awk '/Alice/' employees.txt
awk '$2 < 30 {print $1, $2}' employees.txt
  435
  436
        awk '$2 < 30 {print $1, $2}' employees.txt
awk '{printf "Name: %s, Age: %d, Salary: %d\n", $1, $2, $3}' employees.txt
        awk 'END {print "Total employees= ", NR}' employees.txt
  439
        ls -l
        ls -l s1.txt
  440
  441
        chmod u+x s1.txt
  442
        ls -l s1.txt
  443
        chmod o-r s1.txt
  444
        ls -l s1.txt
        chmod 462 s1.txt
  446 ls -l s1.txt
  447 history
mariapunya@LAPTOP-9BH6M92I:~$
```