Regular Expression

root@ubuntu:~/Desktop/shell_scripts# cat Chap*

Hello 1

Hello 2

Hello 3

Hello 4

Hello 5

root@ubuntu:~/Desktop/shell_scripts#

///////////////////////Regular Expression//////////////

Basic Regular Expression:BRE

Extended Regular Expression: ERE

root@ubuntu:~/Desktop# grep [Aa] test_file1

Elegant honeyeater

Elegant imperial pigeon

Elegant parrot

Elegant pitta

Elegant quail

Elegant sunbird

Elegant tern

Elegant tit

Elegant trogon

Elegant woodcreeper

Eleonora's falcon

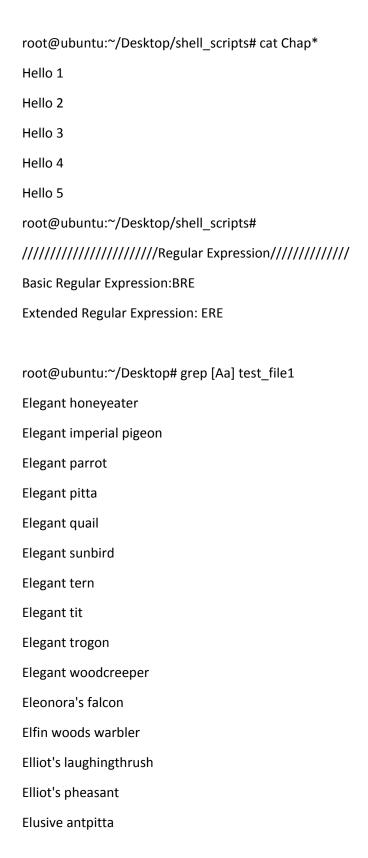Elfin woods warbler

Elliot's laughingthrush

Elliot's pheasant
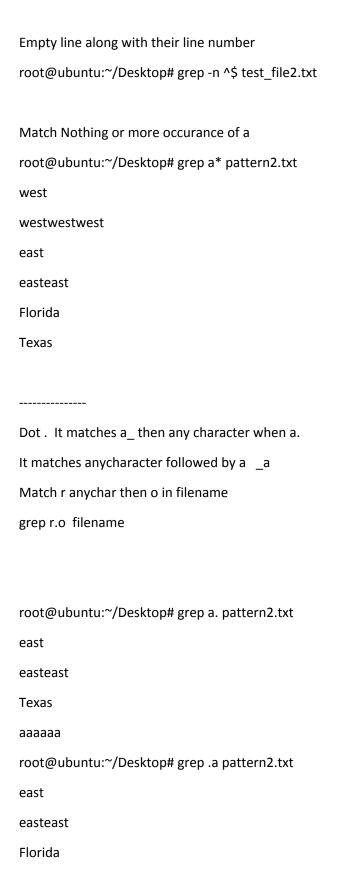
Elusive antpitta

Emei leaf warbler

Emei Shan liocichla

Emerald starling

Emerald tanager

Emerald toucanet

Emerald-bellied puffleg

Emerald-chinned hummingbird

Emerald-spotted wood dove

Emperor bird-of-paradise

Emperor fairywren

Empress brilliant

Enggano cuckoo-dove

Enggano hill myna

Enggano scops owl

Enggano thrush

Epaulet oriole

Equatorial akalat

Equatorial greytail

Esmeraldas antbird

Esmeraldas woodstar

Española cactus finch

Ethiopian boubou

Ethiopian cisticola

Ethiopian oriole

Ethiopian siskin

Ethiopian swallow

Euler's flycatcher

Eungella honeyeater

Eurasian bittern

Eurasian blackcap

Eurasian blue tit

Eurasian bullfinch

Eurasian collared dove

Eurasian coot

Eurasian crag martin

Eurasian curlew

Eurasian dotterel

Eurasian eagle-owl

Eurasian golden oriole

Eurasian hobby

Eurasian hoopoe

Eurasian jay

Eurasian magpie

Eurasian nuthatch

Eurasian oystercatcher

Eurasian penduline tit

Eurasian pygmy owl

root@ubuntu:~/Desktop# grep [ae][ad] test_file1   matching options are aa, ad, ea,ed

Elegant honeyeater

Elliot's pheasant

Emei leaf warbler

Emerald-bellied puffleg

Emerald-chinned hummingbird

Emerald-spotted wood dove

Emperor bird-of-paradise

Erect-crested penguin

Eungella honeyeater

Eurasian collared dove

Eurasian eagle-owl

Eurasian reed warbler

Eurasian teal

Eurasian three-toed woodpecker

root@ubuntu:~/Desktop#

Eurasian reed warbler

Eurasian rock pipit

Eurasian scops owl

Eurasian siskin

Eurasian skylark

Eurasian sparrowhawk

Eurasian spoonbill

Eurasian stone-curlew

Eurasian teal

Eurasian three-toed woodpecker

Eurasian tree sparrow

Eurasian treecreeper

Eurasian whimbrel

Eurasian wigeon

Eurasian woodcock

Eurasian wren

Eurasian wryneck

European bee-eater

European crested tit

European golden plover

Evening grosbeak

Zero or More Occurance *

root@ubuntu:~/Desktop# grep west* pattern2.txt

west

westwestwest

root@ubuntu:~/Desktop#

Begins with Eastern

root@ubuntu:~/Desktop# grep ^Eastern test_file2.txt

Eastern alpine mannikin

Eastern barn owl

Eastern bearded greenbul

Eastern black-eared wheatear

Eastern black-headed batis

Ends with parrot

root@ubuntu:~/Desktop# grep parrot$ test_file2.txt

Eastern ground parrot

Eclectus parrot

Only word parrot in the entire line

root@ubuntu:~/Desktop# grep ^parrot$ test_file2.txt

Empty line along with their line number

root@ubuntu:~/Desktop# grep -n ^$ test_file2.txt

Match Nothing or more occurance of a

root@ubuntu:~/Desktop# grep a* pattern2.txt

west

westwestwest

east

easteast

Florida

Texas

Dot . It matches a_ then any character when a.

It matches anycharacter followed by a   _a

Match r anychar then o in filename

grep r.o filename

root@ubuntu:~/Desktop# grep a. pattern2.txt

east

easteast

Texas

aaaaaa

root@ubuntu:~/Desktop# grep .a pattern2.txt

east

easteast

Florida

Texas

aaaaaa

Either i or a

root@ubuntu:~/Desktop# grep [ia] pattern2.txt

east

easteast

Florida

Texas

Indiana

Match characters within this range

root@ubuntu:~/Desktop# grep [a-c] pattern2.txt

east

easteast

Florida

Texas

Indiana

root@ubuntu:~/Desktop# grep [c-f] pattern2.txt

west

westwestwest

east

easteast

Florida

Texas

Indiana

root@ubuntu:~/Desktop# grep [c-d] pattern2.txt

Florida

Indiana

root@ubuntu:~/Desktop#

------------------Number Match-----------

root@ubuntu:~/Desktop# grep [1-9] pattern2.txt

546678

29

2456

root@ubuntu:~/Desktop# grep [7-9] pattern2.txt

546678

29

root@ubuntu:~/Desktop# grep [3-4] pattern2.txt

546678

2456

root@ubuntu:~/Desktop# grep [0-1] pattern2.txt

0

Match Non alphabet character

root@ubuntu:~/Desktop# grep [^a-zA-Z] pattern2.txt

546678

29

0

2456

root@ubuntu:~/Desktop#

root@ubuntu:~/Desktop# grep -n [^0-9] pattern2.txt

1:west

2:westwestwest

3:east

4:easteast

5:Florida

6:Texas

7:Indiana

root@ubuntu:~/Desktop#

root@ubuntu:~/Desktop# ls -l | grep ^d   show the directories or starting with d

drwxr-xr-x 3 atrayee atrayee   4096 Sep 4 2017 inst

drwxr-xr-x 5 root   root   4096 Oct 27 2019 kSar-5.0.6

drwxr-xr-x 6 root   root   4096 Oct 27 2019 ksar-master

root@ubuntu:~/Desktop# ls -l | grep ^-   show files only

-rwxr-xr-x 1 root   root   8808 Aug 2 23:00 fork1

-rw-r--r-- 1 root   root   371 Aug 2 23:00 fork1.c

-rw-r--r-- 1 root   root   30996 Jun 22 2021 history_commands.txt

-rw-r--r-- 1 root   root   533 Jun 15 2021 mesh_table

-rw-r--r-- 1 root   root   631 Jun 19 2021 mesh_tableCHA1

-rw-r--r-- 1 root   root   38 Aug 10 21:17 pattern1.txt

-rw-r--r-- 1 root   root   72 Aug 10 21:58 pattern2.txt

-rw-r--r-- 1 root   root   32 Aug 10 22:59 pattern3.txt

-rw-r--r-- 1 root   root   1984 Aug 10 21:00 test_file1

-rw-r--r-- 1 root   root   1465 Aug 10 21:02 test_file2.txt

root@ubuntu:~/Desktop# ls -l | grep ^[^d]   show not starting with directory means files

total 4496

-rwxrw-rw- 1 root   root   4510382 Mar 31 2021 2020JournalHealth Technol.pdf

-rwxr-xr-x 1 root   root   8808 Aug 2 23:00 fork1

-rw-r--r-- 1 root   root   371 Aug 2 23:00 fork1.c

```
-rw-r--r-- 1 root   root    30996 Jun 22  2021 history_commands.txt

-rw-r--r-- 1 root   root      533 Jun 15  2021 mesh_table

-rw-r--r-- 1 root   root      631 Jun 19  2021 mesh_tableCHA1

-rw-r--r-- 1 root   root       38 Aug 10 21:17 pattern1.txt

-rw-r--r-- 1 root   root       72 Aug 10 21:58 pattern2.txt

-rw-r--r-- 1 root   root       32 Aug 10 22:59 pattern3.txt

-rw-r--r-- 1 root   root     1984 Aug 10 21:00 test_file1

-rw-r--r-- 1 root   root     1465 Aug 10 21:02 test_file2.txt

root@ubuntu:~/Desktop#
```