Linux Command Assignment

command:

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curl -s http://public-dns.info/nameserver/br.csv | cut -d, -f1 | shuf | tail -n 50 | xargs -i timeout 1 ping -c1 -w 1 {} | grep "time=" | awk '{print substr($7, 6, length($7)) " " substr($4, 1, length($4) -1)}' | sort -n | awk '{print $2 " " $1 "ms"}' | head -n 10
```

The above commands are meant as follows:

1)**curl -s** xyz.csv :curl command is used to transfer data through any supported protocols, in this case its HTTP.the csv file data is transfered and piped into the next Command.

-s:silent mode doesnt show progress meter and errors.

2)**pipe** operator:(’|’):this command takes input from one command and send the output as an input to the next command.

3)**cut** :cut is used to parse the input,(“ -d , “) uses comma as a delimiter ,-f stands for the field and 1 means the first field.There are ip address in the first field.

-d:specifying delimeter.
-f:allows us to specify which feilds to display.

4)**shuf**:This command is used to shuffle the lines of a file in a random fashion.(ip address int this case).

5)**tail -n 50**:this commands takes the input file and outputs the last 50 lines(last 50 ip addresses).

-n:number of lines

6)**xargs**:this command is used for building and executing commands form standard input.

-i:replaces {} with string.

7)**timeout** command kills the process if the process keeps running more than the time specfied.

8)**ping** is a utility to determine whether a specific Ip address is accessible. It works by sending a packet to the specified address and waiting for a reply.

-c specifies the number of packets to send
-w stands for deadline for each packet sent.

9)**grep** stands for global regular expression print.This returns all the strings which mach the regular expression.(returns strings with”time=”).

10)**awk** is a text processing utility.here 2 substrings of the output form ping are appended,One is the ip address and the other is the round trip time. i.e the time taken for the packet to reach the destination server and viceversa.

awk ‘{print}’ : is used to print every line of data from the specified file.

In each line, the awk command splits the record delimited by whitespace character by default and stores it in the $n variables. If the line has 4 words, it will be stored in $1, $2, $3 and $4 respectively. Also, $0 represents the whole line.

substr(s,a,b) : used to get ‘b’ no. of charatcers from string ‘s’ starting from position ‘a’.
length(a) : returns the size of the field ‘a’.

11)**sort -n** stands for numeric sort the ip addresses are being sorted in the acsending order of their time.

12)the final output is the first 10 ip addresses followed by their roundtrip time.in the asecnding order of their round trip time.