Assignment 5: Network Operations

1.Write a script that checks if a list of remote servers is reachable over SSH

```
#!/bin/bash

FILE="$1"

if [ ! -f "$FILE" ]; then

   echo "Server list not found!"

   exit 1

fi

while read -r server; do

   echo "Checking SSH on $server..."

   if ssh -o BatchMode=yes -o ConnectTimeout=5 "$server" exit 2>/dev/null; then

      echo "$server is reachable via SSH"

   else

      echo "$server is NOT reachable via SSH"

   fi

done < "$FILE"
```
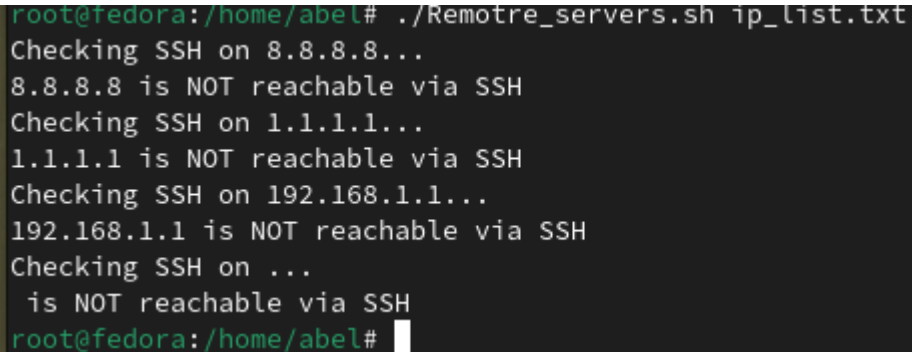
```
root@fedora:/home/abel# ./Remotre_servers.sh ip_list.txt
Checking SSH on 8.8.8.8...
8.8.8.8 is NOT reachable via SSH
Checking SSH on 1.1.1.1...
1.1.1.1 is NOT reachable via SSH
Checking SSH on 192.168.1.1...
192.168.1.1 is NOT reachable via SSH
Checking SSH on ...
 is NOT reachable via SSH
root@fedora:/home/abel#
```

2. Ping IPs and Report Average Response Time

```bash
#!/bin/bash


FILE="$1"


if [ ! -f "$FILE" ]; then

   echo "IP list not found!"

   exit 1

fi


while read -r ip; do

   echo "Pinging $ip..."

   avg=$(ping -c 4 "$ip" | grep 'rtt' | awk -F'/' '{print $5}')

   if [ -n "$avg" ]; then

      echo "$ip average response time: ${avg} ms"

   else

      echo "$ip is unreachable"

   fi
done < "$FILE"
```

```
root@fedora:/home/abel# ./ping.sh ip_list.txt
Pinging 8.8.8.8...
8.8.8.8 average response time: 22.245 ms
Pinging 1.1.1.1...
1.1.1.1 average response time: 21.434 ms
Pinging 192.168.1.1...
192.168.1.1 is unreachable
Pinging ...
ping: : No address associated with hostname
  is unreachable
root@fedora:/home/abel# 
```

3. Website Status with HTTP Request

```bash
#!/bin/bash

URL="$1"

if [ -z "$URL" ]; then
    echo "Usage: $0 <website_url>"
    exit 1
fi

status=$(curl -s -o /dev/null -w "%{http_code}" "$URL")

if [ "$status" -eq 200 ]; then
    echo "$URL is UP"
else
    echo "$URL is DOWN (Status Code: $status)"
fi
```
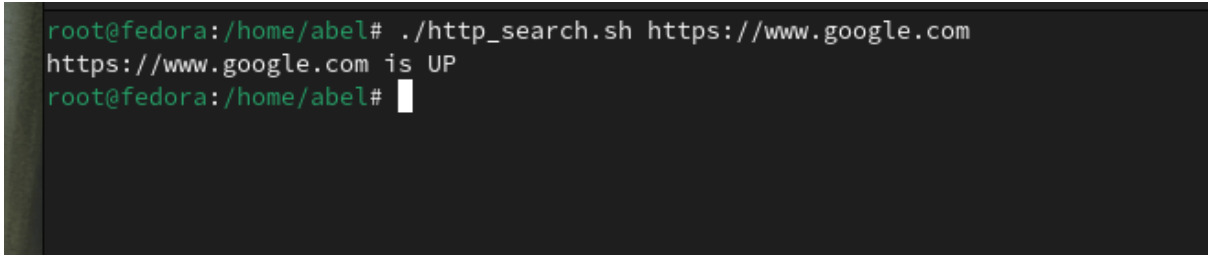
```
root@fedora:/home/abel# ./http_search.sh https://www.google.com
https://www.google.com is UP
root@fedora:/home/abel#
```