

Home task A.

Create a script that uses the following keys:

1. When starting without parameters, it will display a list of possible keys and their description.

```
ams@ams-virtual-machine:~/ht1$ ./a.sh
You should type argument: --aa|--target
```

2. The --all key displays the IP addresses and symbolic names of all hosts in the current subnet

```
ams@ams-virtual-machine:~/ht1$ ./a.sh --all
--all command
Hosts in the current subnet:
Starting Nmap 7.80 ( https://nmap.org ) at 2022-10-28 11:48 EEST
Nmap done: 256 IP addresses (0 hosts up) scanned in 104.25 seconds
ams@ams-virtual-machine:~/ht1$
```

3. The --target key displays a list of open system TCP ports. The code that performs the functionality of each of the subtasks must be placed in a separate function

```
ams@ams-virtual-machine:~/ht1$ ./a.sh --target
--target command
open TCP ports are:

tcp      0      0 127.0.0.1:33060      0.0.0.0:*            LISTEN
tcp      0      0 127.0.0.53:53        0.0.0.0:*            LISTEN
tcp      0      0 127.0.0.1:631        0.0.0.0:*            LISTEN
tcp      0      0 127.0.0.1:3306       0.0.0.0:*            LISTEN
tcp6     0      0 :::1:631             :::*                 LISTEN
```

B.

Using Apache log example create a script to answer the following questions:

1. From which ip were the most requests?

```
ams@ams-virtual-machine:~/ht1$ ./b.sh
B-task
1. From which ip were the most requests?
The most frequent ip is: 94.78.95.154, it appeared 29 times
```

2. What is the most requested page?

```
2. What is the most requested page?
./b.sh: line 64: ((: counts[/]++: bad array subscript (error token is "counts[/]++")
The most frequently visited page is: /ukhod-za-soboj/pokhudenie/furosemid-dlya-pokhudeniya.html,
it appeared 33 times
```

3. How many requests were there from each ip?

```
3.      How many requests were there from each ip?
      IP 92.42.128.111 appears 3 time(s)
      IP 62.192.249.56 appears 2 time(s)
      IP 213.87.160.85 appears 1 time(s)
      IP 94.23.230.134 appears 2 time(s)
      IP 91.121.209.185 appears 10 time(s)
      IP 91.109.19.24 appears 1 time(s)
      IP 80.234.24.195 appears 3 time(s)
      IP 80.250.69.80 appears 2 time(s)
      IP 176.60.176.90 appears 2 time(s)
      IP 109.254.49.140 appears 1 time(s)
      IP 91.185.224.252 appears 2 time(s)
      IP 62.182.200.117 appears 2 time(s)
      IP 176.59.192.252 appears 1 time(s)
      IP 174.129.126.65 appears 1 time(s)
      IP 147.30.136.250 appears 2 time(s)
      IP 213.186.8.43 appears 3 time(s)
      IP 207.46.13.3 appears 4 time(s)
      IP 185.145.254.110 appears 2 time(s)
      IP 95.91.244.229 appears 2 time(s)
      IP 194.186.174.171 appears 1 time(s)
      IP 5.164.154.6 appears 2 time(s)
      IP 188.170.200.96 appears 1 time(s)
      IP 195.170.39.107 appears 1 time(s)
      IP 46.211.154.121 appears 3 time(s)
      IP 213.87.128.54 appears 1 time(s)
      IP 150.129.64.157 appears 3 time(s)
      IP 81.200.244.154 appears 1 time(s)
      IP 85.26.183.33 appears 5 time(s)
      IP 31.173.100.163 appears 1 time(s)
      IP 178.216.120.195 appears 5 time(s)
      IP 185.86.5.199 appears 2 time(s)
      IP 178.123.215.207 appears 2 time(s)
      IP 31.8.40.150 appears 2 time(s)
      IP 85.140.0.112 appears 1 time(s)
      IP 217.69.133.240 appears 6 time(s)
      IP 82.145.221.243 appears 1 time(s)
      -- -- -- -- --
```

4. What non-existent pages were clients referred to?

```
4.      What non-existent pages were clients referred to?
      String 622 /register.aspx 404
      String 621 /ehsteticheskaya-medicina/register.aspx 404
      String 938 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 620 /ehsteticheskaya-medicina/injekcii/register.aspx 404
      String 312 /wp-content/themes/cassia/css/fonts/flexslider-icon.svg 404
      String 311 /wp-content/themes/cassia/css/fonts/flexslider-icon.ttf 404
      String 310 /wp-content/themes/cassia/css/fonts/flexslider-icon.woff 404
      String 490 / 404
      String 248 /LISU.ttf 404
      String 247 /LISU.woff 404
      String 529 /rtc_wizard_index.htm 404
      String 148 /apple-touch-icon-precomposed.png 404
      String 149 /apple-touch-icon.png 404
      String 821 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 822 /ukhod-za-soboj/pokhudenie/diet/map.css 404
      String 779 /wp-content/plugins/stats-counter/img/icon.png 404
      String 219 /ukhod-z 404
      String 878 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 755 /google89150ef520da50eb.html 404
      String 956 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 568 /otzivl-obzori/yuvderm-otzivl-obzori/yuvderm-ne-ochen-dovolna-22-goda.html 404
      String 357 /.svn/format 404
      String 356 /.svn/wc.db 404
      String 355 /.hg/hgrc 404
      String 354 /.git/config 404
      String 359 /.bash_history 404
      String 358 /.bzip2/branch-format 404
      String 618 /ehsteticheskaya-medicina/injekcii/biorevitalizaciya/preparaty-dlya-biorevitalizac
      String 619 /ehsteticheskaya-medicina/injekcii/biorevitalizaciya/register.aspx 404
      String 909 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 554 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 150 / 404
      String 790 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 258 /LISU.woff 404
      String 259 /LISU.ttf 404
      String 382 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 383 /wp-content/themes/cassia/css/fonts/flexslider-icon.eot? 404
      String 366 /.bzip2/branch-format 404
      String 367 /.bash_history 404
      String 364 /.svn/wc.db 404
      String 365 /.svn/format 404
      String 362 /.git/config 404
      String 363 /.hg/hgrc 404
      -- -- -- -- --
```

5. What time did site get the most requests?

```
5.      What time did site get the most requests?
      The most used time is: 25/Apr/2017:11:36, it has 18 requests
```

6. What search bots have accessed the site? (UA + IP)

```
6.      What search bots have accessed the site? (UA + IP)
      +http://yandex.com/bots)"      has IP: 93.170.253.156
      +http://www.bing.com/bingbot.htm)"      has IP: 46.158.68.55
      (+http://search.msn.com/msnbot.htm)"      has IP: 185.168.187.11
      +http://go.mail.ru/help/robots)"      has IP: 217.69.133.236
      +http://ahrefs.com/robot/)"      has IP: 80.250.69.80
      "Twitterbot/1.0"      has IP: 93.185.218.39
      http://mj12bot.com/)"      has IP: 212.115.253.100
      +http://www.google.com/bot.html)"      has IP: 95.65.45.111
      Googlebot)"      has IP: 217.69.133.237
```

C.

Create a data backup script that takes the following data as parameters:

1. Path to the syncing directory.
2. The path to the directory where the copies of the files will be stored. In case of adding new or deleting old files, the script must add a corresponding entry to the log file indicating the time, type of operation and file name. [The command to run the script must be added to crontab with a run frequency of one minute