LINUX

Download the file web_scraper.sh . Make the file executable. The file takes any wikipedia webpage as an argument. Run the process on multiple sites like Wikipedia:Stub - Wikipedia , India - Wikipedia at the same time and

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ ./web_scraper.sh "https://en.wikipedia.org/wiki/Wikipedia:Stud" & ./web_scraper.sh
 "https://en.wikipedia.org/wiki/India" &
[1] 2081
[2] 2082
Fetching: https://en.wikipedia.org/wiki/Wikipedia:Stud
Fetching: https://en.wikipedia.org/wiki/India
./web_scraper.sh: line 41: wget: command not found
./web_scraper.sh: line 41: wget: command not found

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ All links have been fetched.
Stored 1 pages in memory.
All links have been fetched.
Stored 1 pages in memory.
$
```

Find all the processes running on the system.

```
Stored 1 pages in memory.
$ ps -ef
     UID      PID    PPID TTY          STIME COMMAND
AzureAD+    2030       1 ?         20:52:03 /usr/bin/mintty
AzureAD+    2031    2030 pty0      20:52:03 /usr/bin/bash
AzureAD+    2096    2031 pty0      21:44:28 /usr/bin/ps
[1]-  Done                    ./web_scraper.sh "https://en.wikipedia.org/wiki/Wikipedia:Stud"
[2]+  Done                    ./web_scraper.sh "https://en.wikipedia.org/wiki/India"
```

Find all running processes:

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ ps aux
     PID    PPID    PGID  WINPID   TTY         UID    STIME COMMAND
    1391       1    1391   21476   ?          4096 22:40:35 /usr/bin/mintty
    1392    1391    1392    2464   pty0       4096 22:40:35 /usr/bin/bash
    1464    1392    1464   16652   pty0       4096 00:12:17 /usr/bin/ps
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
```

Find which version of java is installed on the system

```
$ java --version
java 21.0.6 2025-01-21 LTS
Java(TM) SE Runtime Environment (build 21.0.6+8-LTS-188)
Java HotSpot(TM) 64-Bit Server VM (build 21.0.6+8-LTS-188, mixed mode, sharing)
```

Print the HTTP response code obtained from google.com.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ curl -o /dev/null -s -w "%{http_code}\n" https://www.google.com
200
```

Write a script that finds all files larger than 100MB in a directory and lists them.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ find . -type f -size +100M
./AppData/Local/Microsoft/Edge/User Data/Default/Cache/Cache_Data/data_3
```

To find current time zone

```
AzureAD+SantoshBabu@IN-KA-FCEZWL
$ date +"%Z %z"
IST +0530
```

Find time in other time zones

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64
$ TZ="America/New_York" date
Wed May 28 19:02:22 GMT 2025
```

Connect to google.com and copy the output to a text file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ curl https://www.google.com -o google_output.txt
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 19442    0 19442    0     0  50186      0 --:--:-- --:--:-- --:--:-- 50630
```

Kernel Version

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ uname -r
3.5.7-463ebcdc.x86_64
```

Find the IP address of the system.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ ipconfig

Windows IP Configuration


Ethernet adapter Ethernet:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 1:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter Local Area Connection* 2:

   Media State . . . . . . . . . . . : Media disconnected
   Connection-specific DNS Suffix  . :

Wireless LAN adapter WiFi:

   Connection-specific DNS Suffix  . :
   IPv4 Address. . . . . . . . . . . : 192.168.68.111
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 192.168.68.1
```

Listing sorted by size

```
AzureAD+SantoshBabu@IN-KA-FCE2WL MINGW64 ~
$ ls -ls
total 8337
-rw-r--r-- 1 AzureAD+SantoshBabu 4096 4980736 May 28 17:05  NTUSER.DAT
-rw-r--r-- 1 AzureAD+SantoshBabu 4096 1355776 May 22 16:52  ntuser.dat.LOG2
-rw-r--r-- 1 AzureAD+SantoshBabu 4096 1048576 May 22 16:52  ntuser.dat.LOG1
-rw-r--r-- 1 AzureAD+SantoshBabu 4096  524288 May 22 16:52  NTUSER.DAT{75172bbf-eb5e
-11ef-b695-700810dfd62f}.TMContainer00000000000000000001.regtrans-ms
-rw-r--r-- 1 AzureAD+SantoshBabu 4096  524288 May 22 16:52  NTUSER.DAT{75172bbf-eb5e
-11ef-b695-700810dfd62f}.TMContainer00000000000000000002.regtrans-ms
-rw-r--r-- 1 AzureAD+SantoshBabu 4096   65536 May 22 16:52  NTUSER.DAT{75172bbf-eb5e
-11ef-b695-700810dfd62f}.TM.blf
-rw-r--r-- 1 AzureAD+SantoshBabu 4096   19442 May 29 00:36  google_output.txt
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      72 May 22 16:52  NetHood -> '/c/Users/San
toshBabu/AppData/Roaming/Microsoft/Windows/Network Shortcuts'/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      72 May 22 16:52  PrintHood -> '/c/Users/S
antoshBabu/AppData/Roaming/Microsoft/Windows/Printer Shortcuts'/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      65 May 22 16:52  'Start Menu' -> '/c/Users
/SantoshBabu/AppData/Roaming/Microsoft/Windows/Start Menu'/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      64 May 22 16:52  Cookies -> /c/Users/Sant
oshBabu/AppData/Local/Microsoft/Windows/INetCookies/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      64 May 22 16:52  Templates -> /c/Users/Sa
ntoshBabu/AppData/Roaming/Microsoft/Windows/Templates/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      61 May 22 16:52  Recent -> /c/Users/Santo
shBabu/AppData/Roaming/Microsoft/Windows/Recent/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      61 May 22 16:52  SendTo -> /c/Users/Santo
shBabu/AppData/Roaming/Microsoft/Windows/SendTo/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      36 May 22 16:52  'Application Data' -> /c/
Users/SantoshBabu/AppData/Roaming/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      34 May 22 16:52  'Local Settings' -> /c/Us
ers/SantoshBabu/AppData/Local/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096      30 May 22 16:52  'My Documents' -> /c/User
s/SantoshBabu/Documents/
-rw-r--r-- 1 AzureAD+SantoshBabu 4096      20 May 22 16:52  ntuser.ini
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:52  AppData/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:52  Contacts/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 23 13:56  Desktop/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 28 22:47  Documents/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 29 00:23  Downloads/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:52  Favorites/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 23 14:23  IdeaProjects/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:52  Links/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:52  Music/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:32  OneDrive/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 23 17:20  Pictures/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 23 13:54  Postman/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096       0 May 22 16:52  'Saved Games'/
```

List files in human readable format

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ ls -lh
total 8.4M
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:52  AppData/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   36 May 22 16:52 'Application Data' -> /c/Use
rs/SantoshBabu/AppData/Roaming/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:52  Contacts/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   64 May 22 16:52  Cookies -> /c/Users/Santosh
Babu/AppData/Local/Microsoft/Windows/INetCookies/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 23 13:56  Desktop/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 28 22:47  Documents/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 29 00:23  Downloads/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:52  Favorites/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 23 14:23  IdeaProjects/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:52  Links/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   34 May 22 16:52 'Local Settings' -> /c/Users
/SantoshBabu/AppData/Local/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:52  Music/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   30 May 22 16:52 'My Documents' -> /c/Users/S
antoshBabu/Documents/
-rw-r--r-- 1 AzureAD+SantoshBabu 4096 4.8M May 28 17:05  NTUSER.DAT
-rw-r--r-- 1 AzureAD+SantoshBabu 4096  64K May 22 16:52  NTUSER.DAT{75172bbf-eb5e-11
ef-b695-700810dfd62f}.TM.blf
-rw-r--r-- 1 AzureAD+SantoshBabu 4096 512K May 22 16:52  NTUSER.DAT{75172bbf-eb5e-11
ef-b695-700810dfd62f}.TMContainer00000000000000000001.regtrans-ms
-rw-r--r-- 1 AzureAD+SantoshBabu 4096 512K May 22 16:52  NTUSER.DAT{75172bbf-eb5e-11
ef-b695-700810dfd62f}.TMContainer00000000000000000002.regtrans-ms
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   72 May 22 16:52  NetHood -> '/c/Users/Santos
hBabu/AppData/Roaming/Microsoft/Windows/Network Shortcuts'/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:32  OneDrive/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 23 17:20  Pictures/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 23 13:54  Postman/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   72 May 22 16:52  PrintHood -> '/c/Users/Sant
oshBabu/AppData/Roaming/Microsoft/Windows/Printer Shortcuts'/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   61 May 22 16:52  Recent -> /c/Users/SantoshB
abu/AppData/Roaming/Microsoft/Windows/Recent/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:52 'Saved Games'/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 22 16:54  Searches/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   61 May 22 16:52  SendTo -> /c/Users/SantoshB
abu/AppData/Roaming/Microsoft/Windows/SendTo/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   65 May 22 16:52 'Start Menu' -> '/c/Users/Sa
ntoshBabu/AppData/Roaming/Microsoft/Windows/Start Menu'/
lrwxrwxrwx 1 AzureAD+SantoshBabu 4096   64 May 22 16:52  Templates -> /c/Users/Santo
shBabu/AppData/Roaming/Microsoft/Windows/Templates/
drwxr-xr-x 1 AzureAD+SantoshBabu 4096    0 May 26 16:17  Videos/
-rw-r--r-- 1 AzureAD+SantoshBabu 4096    0 May 29 00:33  errors.txt
-r--r--r-- 1 AzureAD+SantoshBabu 4096    0 May 29 00:37  example.txt
-rw-r--r-- 1 AzureAD+SantoshBabu 4096  19K May 29 00:36  google_output.txt
```

Print Hostname

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ hostname
IN-KA-FCEZWL
```

Given a log file:

Find all the errors in the log and dump them to a new file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ touch mylog.log

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ vi mylog.log

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ grep -i "error" mylog.log > errorfile.log

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ cat errorfile.log
2025-02-18 08:47:34 ERROR Failed to connect to database
2025-02-18 08:47:34 ERROR Details:
2025-02-18 08:47:34 ERROR Connection timeout after 30 seconds
2025-02-18 08:51:45 ERROR Unable to write to log file
2025-02-18 08:51:45 ERROR Details:
2025-02-18 08:51:45 ERROR Disk write permission denied
2025-02-18 08:56:45 ERROR Network timeout
2025-02-18 08:56:45 ERROR Details:
2025-02-18 08:56:45 ERROR Server did not respond within the allotted time
2025-02-19 09:07:12 ERROR Failed to connect to database
2025-02-19 09:07:12 ERROR Details:
2025-02-19 09:07:12 ERROR Connection timeout after 30 seconds
2025-02-19 09:11:45 ERROR Unable to write to log file
2025-02-19 09:11:45 ERROR Details:
2025-02-19 09:11:45 ERROR Disk write permission denied
2025-02-19 09:16:45 ERROR Network timeout
2025-02-19 09:16:45 ERROR Details:
2025-02-19 09:16:45 ERROR Server did not respond within the allotted time
2025-02-19 09:29:45 ERROR Application crash
2025-02-19 09:29:45 ERROR Details:
2025-02-19 09:29:45 ERROR Null pointer exception in module X
2025-02-20 10:07:12 ERROR Failed to connect to database
2025-02-20 10:07:12 ERROR Details:
2025-02-20 10:07:12 ERROR Connection timeout after 30 seconds
2025-02-20 10:11:45 ERROR Unable to write to log file
2025-02-20 10:11:45 ERROR Details:
2025-02-20 10:11:45 ERROR Disk write permission denied
2025-02-20 10:16:45 ERROR Network timeout
2025-02-20 10:16:45 ERROR Details:
2025-02-20 10:16:45 ERROR Server did not respond within the allotted time
2025-02-20 10:29:45 ERROR Application crash
2025-02-20 10:29:45 ERROR Details:
2025-02-20 10:29:45 ERROR Null pointer exception in module X
```

What events occurred between 09:10 and 09:19?

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ grep "09:1[0-9]" mylog.log
2025-02-19 09:10:15 INFO User login successful: user2
2025-02-19 09:11:45 ERROR Unable to write to log file
2025-02-19 09:11:45 ERROR Details:
2025-02-19 09:11:45 ERROR Disk write permission denied
2025-02-19 09:12:30 INFO User logout: user1
2025-02-19 09:13:50 WARN High memory usage detected
2025-02-19 09:14:22 INFO User login successful: user3
2025-02-19 09:15:33 INFO File upload completed: file1.txt
2025-02-19 09:16:45 ERROR Network timeout
2025-02-19 09:16:45 ERROR Details:
2025-02-19 09:16:45 ERROR Server did not respond within the allotted time
2025-02-19 09:17:56 INFO User logout: user2
2025-02-19 09:18:12 INFO User login successful: user4
2025-02-19 09:19:23 INFO Scheduled maintenance started
```

How many INFO messages are in the log file?

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ grep -c "INFO" mylog.log
51
```

Print the first 5 lines of the file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ head -n 5 mylog.log

2025-02-18 08:45:12 INFO Starting the application
2025-02-18 08:46:23 WARN Low disk space on /dev/sda1
2025-02-18 08:47:34 ERROR Failed to connect to database
2025-02-18 08:47:34 ERROR Details:
```

Print the last 5 lines of the file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ tail -n 5 mylog.log
2025-02-20 10:29:45 ERROR Application crash
2025-02-20 10:29:45 ERROR Details:
2025-02-20 10:29:45 ERROR Null pointer exception in module X
2025-02-20 10:30:56 INFO User logout: user5
```

Print lines if the lines contain error, fail, or warning.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ grep -iE "error|fail|warning" mylog.log
2025-02-18 08:47:34 ERROR Failed to connect to database
2025-02-18 08:47:34 ERROR Details:
2025-02-18 08:47:34 ERROR Connection timeout after 30 seconds
2025-02-18 08:51:45 ERROR Unable to write to log file
2025-02-18 08:51:45 ERROR Details:
2025-02-18 08:51:45 ERROR Disk write permission denied
2025-02-18 08:56:45 ERROR Network timeout
2025-02-18 08:56:45 ERROR Details:
2025-02-18 08:56:45 ERROR Server did not respond within the allotted time
2025-02-19 09:07:12 ERROR Failed to connect to database
2025-02-19 09:07:12 ERROR Details:
2025-02-19 09:07:12 ERROR Connection timeout after 30 seconds
2025-02-19 09:11:45 ERROR Unable to write to log file
2025-02-19 09:11:45 ERROR Details:
2025-02-19 09:11:45 ERROR Disk write permission denied
2025-02-19 09:16:45 ERROR Network timeout
2025-02-19 09:16:45 ERROR Details:
2025-02-19 09:16:45 ERROR Server did not respond within the allotted time
2025-02-19 09:29:45 ERROR Application crash
2025-02-19 09:29:45 ERROR Details:
2025-02-19 09:29:45 ERROR Null pointer exception in module X
2025-02-20 10:07:12 ERROR Failed to connect to database
2025-02-20 10:07:12 ERROR Details:
2025-02-20 10:07:12 ERROR Connection timeout after 30 seconds
2025-02-20 10:11:45 ERROR Unable to write to log file
2025-02-20 10:11:45 ERROR Details:
2025-02-20 10:11:45 ERROR Disk write permission denied
2025-02-20 10:16:45 ERROR Network timeout
2025-02-20 10:16:45 ERROR Details:
2025-02-20 10:16:45 ERROR Server did not respond within the allotted time
2025-02-20 10:29:45 ERROR Application crash
2025-02-20 10:29:45 ERROR Details:
2025-02-20 10:29:45 ERROR Null pointer exception in module X
```

Rename the file to new_log.log.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ mv mylog.log newlog.log

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ head -n 10 newlog.log

2025-02-18 08:45:12 INFO Starting the application
2025-02-18 08:46:23 WARN Low disk space on /dev/sda1
2025-02-18 08:47:34 ERROR Failed to connect to database
2025-02-18 08:47:34 ERROR Details:
2025-02-18 08:47:34 ERROR Connection timeout after 30 seconds
2025-02-18 08:48:45 INFO User login successful: user1
2025-02-18 08:49:56 INFO Scheduled backup completed
2025-02-18 08:50:15 INFO User login successful: user2
2025-02-18 08:51:45 ERROR Unable to write to log file
```

Edit the log file and add the string "hello, world!" at the beginning of the file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ echo "hello, world!" | cat - newlog.log > temp && mv temp newlog.log

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ head -n 1 newlog.log
hello, world!
```

Delete the old log file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ rm -f mylog.log

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ cat mylog.log
cat: mylog.log: No such file or directory
```

Filter entries containing the "INFO" string for a particular date for a given   log file, you can use the sample log file given below.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ grep "2025-02-19" newlog.log | grep "INFO"
2025-02-19 09:05:23 INFO Starting the application
2025-02-19 09:08:34 INFO User login successful: user1
2025-02-19 09:09:56 INFO Scheduled backup completed
2025-02-19 09:10:15 INFO User login successful: user2
2025-02-19 09:12:30 INFO User logout: user1
2025-02-19 09:14:22 INFO User login successful: user3
2025-02-19 09:15:33 INFO File upload completed: file1.txt
2025-02-19 09:17:56 INFO User logout: user2
2025-02-19 09:18:12 INFO User login successful: user4
2025-02-19 09:19:23 INFO Scheduled maintenance started
2025-02-19 09:20:34 INFO User logout: user3
2025-02-19 09:21:45 INFO Application shutdown initiated
2025-02-19 09:22:56 INFO Application shutdown completed
2025-02-19 09:23:45 INFO System reboot initiated
2025-02-19 09:24:56 INFO System reboot completed
2025-02-19 09:25:34 INFO User login successful: admin
2025-02-19 09:27:56 INFO User logout: admin
2025-02-19 09:28:34 INFO User login successful: user5
2025-02-19 09:30:56 INFO User logout: user5
```

Write a command to continuously monitor what is being appended to the file and output if you find the string "Error".

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ tail -f newlog.log | grep --line-buffered "Error"
```

Connect to google.com and copy the output to a text file.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ curl https://www.google.com -o google_output.txt
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100 19850      0 19850    0       0  57325      0 --:--:-- --:--:-- --:--:-- 57871
```

Create a file called example.txt. Write a script to make it read-only for all users.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ touch example.txt

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ chmod 444 example.txt
```

Write a script that changes the permissions of a script named myscript.sh to make it executable by the owner, group, and others.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ chmod +x web_scraper.sh

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ chmod 755 web_scraper.sh
```

Recursively make all the files readable in a directory.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ find . -type f -exec chmod a+r {} \;
```

List out all the files that end with ".log" in a directory.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ find . -type f -name "*.log"
./AppData/Local/Atlassian/SourceTree/81d19eeb-925f-4cf9-a4c4-f69f7e1a8a2esourcetree.
log
./AppData/Local/Atlassian/SourceTree/settings.log
./AppData/Local/Atlassian/SourceTree/sourcetree.log
./AppData/Local/DesktopCentral_Agent/dcagenttrayicon.log
./AppData/Local/DesktopCentral_Agent/dcagenttrayicon1.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/0de0-4807-9184-bc2
54bda865f-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/194e-41c8-a047-12a
c8606396c-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/2017-4d4f-b4d3-3fd
fc053a70f-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/3cb0-4896-8c36-35b
e5cab2ed5-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/5fdf-47ff-aa9f-2d1
e1dd63ebf-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/619a-4561-ad54-666
a9a82db78-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/6a3d-49a2-96dc-400
9878c6b2a-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/784b-43c2-9937-5c2
bed94c4d2-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/90f3-4b66-80c7-e65
437218a5e-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/9692-45c6-a2a4-928
c0ff2467d-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/9cd8-4e66-9295-a8b
1efe7ca79-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/a164-4f31-ba1f-62f
f8c552dfd-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/ac2e-45a9-841e-3d3
2cc582bb2-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/b51e-42af-aba3-524
675363a36-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/dd8a-4bd9-9cc6-cf1
bdf062b46-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/event-log-data/logs/IJ_MAP/e9cc-4bd5-8d01-1c0
eed61fdd8-251.25410.129-release.log
./AppData/Local/JetBrains/IdeaIC2025.1/log/build-log/build.log
./AppData/Local/JetBrains/IdeaIC2025.1/log/idea.log
./AppData/Local/JetBrains/IdeaIC2025.1/log/telephony.log
./AppData/Local/JetBrains/IdeaIC2025.1/tmp/statistics-uploader/idea_statistics_uploa
der.log
./AppData/Local/JetBrains/IdeaIC2025.1/tmp/statistics-uploader/idea_statistics_uploa
der_events_v1.log
```

List files/Directories sorted by size

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ du -ah . | sort -rh
```

Kill a process by PID

```
AzureAD+SantoshBabu@
$ kill -9 <PID>
```

Create two files test1.txt and test2.txt with some content and merge it to a single file test.text

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ echo "Text1">txt1.txt

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ echo "Text2">txt2.txt

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ cat txt1.txt txt2.txt > txt3.txt

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ cat txt3.txt
Text1
Text2
```

Create a shell script test.sh with the content given at the bottom and execute it.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ cat << 'EOF' > test.sh
> num=10
> for((i=1;i<num;i++))
> do
>    (sleep 60) &
>    echo "Created process with PID: $!"
> done
> EOF

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ chmod +x test.sh

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ ./test.sh
Created process with PID: 2840
Created process with PID: 2841
Created process with PID: 2842
Created process with PID: 2843
Created process with PID: 2844
Created process with PID: 2845
Created process with PID: 2846
Created process with PID: 2847
Created process with PID: 2848
```

Test.sh creates mutiple process , wrtie command to kill some specific process with given pid.

```
AzureAD+SantoshBabu
$ kill -9 2840
```

Write a shell script which take your name as input and it will dispaly Hello your name.

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ cat << 'EOF' > hello.sh
> read -p "Enter your name: " name
> echo "Hello $name"
> EOF

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ chmod +x hello.sh

AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ ./hello.sh
Enter your name: Santosh
Hello Santosh
```

Write a command to download file.zip from

https://github.com/github/gitignore/archive/refs/heads/main.zip

```
AzureAD+SantoshBabu@IN-KA-FCEZWL MINGW64 ~
$ curl -L -o file.zip https://github.com/github/gitignore/archive/refs/heads/main.zi
p
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--     0
100  122k    0  122k    0     0   108k      0 --:--:--  0:00:01 --:--:--  108k
```