Лабораторная рабта №6

Арифметические операции в NASM

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Цели и задачи

 \cdot Освоение арифметических инструкций языка ассемблера NASM

Выполнение лабораторной работы

1. Вошла в систему, используя свой пароль. Записываю в файл file.txt названия файлов, содержащихся в каталоге /etc. Дописываю в этот же файл названия файлов, содержащихся в домашнем каталоге.

```
sgnorsoyan@dk8n63 ~ $ ls /etc > file.txt
sgnorsoyan@dk8n63 ~ $ ls ~ >>file.txt
sgnorsoyan@dk8n63 ~ $
```

Рис. 1: Записала в файл названия файлов из каталога /etc

2. Вывожу имена всех файлов из file.txt, имеющих расширение .conf, после чего записалf их в новых текстовый файл conf.txt



```
mailutils.
make.
man_db
metalog
mke2fs
modprobe
 modules
mplayer
 nsswitch
ntp.c
ntp.c
ntpd.
pear.
pe-format2_conf
prelink.conf.d
request-key
resolv.
rofi-pass
rsyslog
sudo e
sudo_logsrvd.conf
systemconfig
updatedb
 ktdoies.com
sgnorsoyan@dk8n63 ~ $ grep .conf file.txt > conf.txt
sgnorsoyan@dk8n63 ~ $
```

Рис. 3: Расширение .conf.txt

3. Определила, какие файлы в домашнем каталоге имеют имена, которые начинаются с символа с. Привела несколько примеров, как это сделать.

```
sgnorsoyan@dk8n63 ~ $ ls -l | grep c*
sgnorsoyan@dk8n63 ~ $ find ~/c* -name "c*" -print
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/cbir
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/chisla.cpp
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/conf.txt
sgnorsoyan@dk8n63 ~ $
```

Рис. 4: Файлы с буквы с

4. Вывела на экран имена файлов из каталога /etc, начинающиеся с символа h

```
[1]+ Остановлен ls --color=auto -l | grap h* | less
sgnorsoyan@dk8n63 ~ $
```

Рис. 5: Файлы с буквы h

```
sgnorsoyan@dk8n63 ~ $ find ~ -name "log*" -print > ~logfile &
[2] 7006
sgnorsoyan@dk8n63 ~ $ rm -r logfile
rm: невозможно удалить 'logfile': Нет такого файла или каталога
[2]- Завершён find ~ -name "log*" -print > ~logfile
sgnorsoyan@dk8n63 ~ $
```

Рис. 6: Весь каталог

5. Запустила в фоновом режиме процесс, который будет записывать в файл ~/logfile файлы, имена которых начинаются с log.

```
sgnorsoyan@dk8n63 ~ $ find ~ -name "log*" -print > ~/logfile &
[2] 7117
sgnorsoyan@dk8n63 ~ $ rm -r logfile
[2]- Завершён find ~ -name "log*" -print > ~/logfile
sgnorsoyan@dk8n63 ~ $ gedit &
[2] 7152
sgnorsoyan@dk8n63 ~ $
```

Рис. 7: logfile

6. Запустила из консоли в фоновом режиме редактор gedit.

```
sgnorsoyan@dk8n63 ~ $ find ~ -name "log*" -print > ~/logfile &
[2] 7117
sgnorsoyan@dk8n63 ~ $ rm -r logfile
[2]- Завершён find ~ -name "log*" -print > ~/logfile
sgnorsoyan@dk8n63 ~ $ gedit &
[2] 7152
sgnorsoyan@dk8n63 ~ $
```

Рис. 8: Запустила редактор



Рис. 9: gedit

7. Определила идентификатор процесса gedit Используя команду ps, конвейер и фильтр grep. Более простым способом определить этот идентификатор не получилось.

```
      sgnorsoyan@dk8n63 ~ $ find ~ -name "log*" -print > ~/logfile &

      [3] 7317

      sgnorsoyan@dk8n63 ~ $ rm -r logfile

      [3]- 3aBepwëH find ~ -name "log*" -print > ~/logfile

      sgnorsoyan@dk8n63 ~ $ gedit &

      [3] 7350

      sgnorsoyan@dk8n63 ~ $ ps aux | grep -i gedit

      sgnorsoyan@dk8n63 ~ $ ps aux | grep -i gedit

      sgnorso+ 7152 1.0 1.8 781964 148332 pts/0 Sl 12:36 0:01 gedit

      sgnorso+ 7379 0.0 0.0 6904 2344 pts/0 S+ 12:38 0:00 grep --colour=auto -i gedit

      [3]- 3aBepwëH gedit

      sgnorsoyan@dk8n63 ~ $
```

Рис. 10: ps, gedit

8. Прочла справку (man) команды kill, после чего использовал её для завершения процесса gedit.

```
sgnorsoyanddk3n38 - $ nan df

[1]* Ocrawoanew man df
sgnorsoyanddk3n38 - $ nan du
[2]* Ocrawoanew man du
sgnorsoyanddk3n38 - $ s an du
```

Рис. 11: команда kill

```
      sgnorsoyan@dk8n63 ~ $ find ~ -name "log*" -print > ~/logfile &

      [3] 7317

      sgnorsoyan@dk8n63 ~ $ rm -r logfile

      [3]- Завершён find ~ -name "log*" -print > ~/logfile

      sgnorsoyan@dk8n63 ~ $ gedit &

      [3] 7350

      sgnorsoyan@dk8n63 ~ $ ps aux | grep -i gedit

      sgnorsoy + 7152 1.0 1.8 781964 148332 pts/0 Sl 12:36 0:01 gedit

      sgnorso+ 7379 0.0 0.0 6904 2344 pts/0 S+ 12:38 0:00 grep --colour=auto -i gedit

      [3]- Завершён gedit

      sgnorsoyan@dk8n63 ~ $
```

Рис. 12: Создаю новый каталог

9. Выполнила команды df и du Предварительно получив более подробную информацию об этих командах, с помощью команды man.



```
User Commands
      Summarize device usage of the set of FILEs, recursively for directories.
      Mandatory arguments to long options are mandatory for short options too.
             end each output line with NUL, not newline
             write counts for all files, not just directories
             print apparent sizes rather than device usage: although the apparent size is usually smaller, it may be larger due to holes in ('sparse') files, internal fragmentation, indire
             scale sizes by SIZE before printing them; e.g., '-BM' prints sizes in units of 1.048,576 bytes; see SIZE format below
             print the total for a directory (or file, with --all) only if it is N or fewer levels below the command line argument; --max-depth=0 is the same as --summarize
             summarize device usage of the NUL-terminated file names specified in file F: if F is -, then read names from standard input
             print sizes in human readable format (e.g., 1K 234M 2G)
Manual page du(1) line 1 (press h for help or g to guit)
```

Рис. 14: команды df and du

10. Воспользовавшись справкой команды find, вывела имена всех директорий, имеющихся в домашнем каталоге.

```
54518 ./bin
        /work/study/2022-2023/Anyurektuna kommuntena/arch-nc/ sit/hooks
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/info
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/refs/heads
        /work/study/2022-2023/Anywrektyna vomnatena/arch-nc/ sit/refs/tass
        /work/study/2022-2023/Apyurektypa yown.wrepa/arch-pc/ sit/refs/remotes/orisin
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/refs/remotes
        ./work/study/2022-2023/Архитектура компьютера/arch-pc/.git/refs
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/pack
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/info
        /work/study/2022-2023/Apxитектура компьютера/arch-pc/.git/objects/1b
        /work/study/2022-2023/ADXMTEKTVDA KOMNEWTEDA/arch-pc/.git/objects/b9
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/73
        /work/study/2022-2023/Apxитектура компьютера/arch-pc/.git/objects/5b
        /work/study/2022-2023/ADXMTEKTYDA KOMDLWTeDa/arch-Dc/.git/objects/d9
        /work/study/2022-2023/ADXMTEKTYDA KOMDLWTeDa/arch-Dc/.git/objects/c4
       /work/study/2022-2023/ADXMTEKTYDA KOMBLWTeDa/arch-pc/.git/objects/53
        /work/study/2022-2023/ADXMTEKTYDA KOMBENTEDA/arch-DC/.git/objects/3b
        /work/study/2022-2023/ADXMTEKTYDA KOMDLMTEDA/arch-pc/.git/objects/93
        /work/study/2022-2023/ADXMTEKTYDA KOMBLATEDA/arch-pc/.git/objects/24
        /work/study/2022-2023/Apxutektypa_kompumtepa/arch-pc/_git/objects/70
        /work/study/2022-2023/ADXMTEKTYDD KOMPLETEDD/arch-pc/.git/objects/df
        /work/study/2022-2023/Apxitektypa kompletepa/arch-pc/_git/objects/b7
        /work/study/2022-2023/Anxwrektypa_kompumepa/arch-pc/_git/objects/e1
        /work/study/2022-2023/Anyurektypa kompuntona/arch-nc/_sit/objects/3d
        /work/study/2022-2023/Anxwrektyna kommuntena/arch-nc/_git/objects/3e
        /work/study/2022-2023/Anyurektypa komputena/arch-nc/_sit/objects/55
        /work/study/2022-2023/Apxitektypa kombinetepa/arch-pc/.git/objects/2a
        /work/study/2022-2023/Anyurektypa komputena/arch-nc/ sit/objects/c3
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/f0
        /work/study/2022-2023/Apxитектура компьютера/arch-pc/.git/objects/f2
        /work/study/2022-2023/Anyurayyyna youngurana/arch-nc/ sit/objects/04
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/0a
        ./work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/af
        /work/study/2022-2023/ADXMTEKTVDB KOMNEWTEDB/arch-pc/.git/objects/83
        ./work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/7e
        /work/study/2022-2023/Apxитектура компьютера/arch-pc/.git/objects/37
        ./work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/dd
        /work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/62
        ./work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/63
        ./work/study/2022-2023/Архитектура компьютера/arch-pc/.git/objects/d6
```

463957 . sgnorsoyanêdk3n38 ~ \$ man find

Рис. 16: команда find

find - search for files in a directory hierarchy

find [-H] [-L] [-P] [-D debugopts] [-Olevel] [starting-point...] [expression]

SCRIPTION

This annual page documents the GOU version of find. GON find searches the directory tree rooted at each given starting-point by evaluating the given expression from left to right, according to the rules of precome is known (the left hands side is fails for mad operations, true for or), at which point find some on to the next file name. If no starting-point is specified, ',' is assumed.

If you are using find in an environment where security is important (for example if you are using it to search directories that are writable by other users), you should read the "Security Considerations" chapte called finding files and roses with finducities. That document also includes, all or now, detail and discussion than this annual name, as you may find it a more useful, source of information.

TTOME

The -H, -L and -P options control the treatment of symbolic links. Command-line arguments following these are taken to be names of files or directories to be examined, up to the first argument that begins wit ment and any following arguments are taken to be the expression describing what is to be searched for. If no paths are given, the current directory is used. If no expression is given, the expression -print is --print instance are navely any any any argument are taken to be the expression describing what is to be searched for. If no paths are given, the current directory is used. If no expression is given, the expression -print is --print instance and any area.

his annual page tails about 'options' within the expression list. These options control the behaviour of fine but are specified immediately after the last path mame. The five 'real' options 'm, 'm, 'm, 'm at all.' A double dash - could be reported to spinal that any remaining argament as en of options to this does not really work due to the way find determines the end of the following path argament comes (which also starts with a '-'). Now, if a path argament would start with a '-', then find would treat it as expression argament. Thus, to ensure that all start points are taken as see the control of the control options of the control o

- P Never follow symbolic links. This is the default behaviour. When find examines or prints information about files, and the file is a symbolic link, the information used shall be taken from the propertie
- -t Follow symbolic links. When find examines or prints information about files, the information used shall be taken from the properties of the file to which the link points, not from the link itself (and able to examine the file to which the link points). Use of this option implies "molest." If you later use the "P option, "molest will still be in effect. If "t is in effect and find discovers a symboli subdirectory pointed to by the symbolic link will be swarched.
 - When the -t option is in effect, the -type predicate will always match against the tupe of the file that a symbolic link points to rather than the link itself (unless the symbolic link is broken). Actic keep while find is executing rifer example -polested can give rise to confusion behavior.

If more than one of -H, -L and -P is specified, each overrides the others; the last one appearing on the command line takes effect. Since it is the default, the -P option should be considered to be in effect of

ON find frequently stast files during the processing of the command line istelf, before any searching has begun. These options also affect how those arguments are processed, specifically, there are a number and line against a file we are recretly considering. In each case, the file specified on the command line will have been entired assow of its properties will have been assowd. If the massefile is in feet (or if neither "A nor "L were specified), the information used for the commarison will be taken from the properties of the symbolic link. Otherwise, it will be taken from the properties of the link instant as no nonexistent file) the properties of the link instant of the link points of the link instant as no nonexistent file) the properties of the link instant as

When the "H or "L options are in effect, any symbolic links listed as the argument of "newer will be dereferenced, and the timestamp will be taken from the file to which the symbolic link points. The same constrained."

The "follow option has a similar effect to "L, though it takes effect at the point where it appears (that is, if "L is not used but "follow is, any symbolic links appearing after "follow on the command line not).

-D dobugont

Frint diagnostic information; this can be helpful to diagnose problems with why find is not doing what you want. The list of debug options should be comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the comma separated. Compatibility of the debug options of the command of the comman

```
afs/.dk.sci.pfu.edu.ru/home/s/g/senorsovan/work/blog/resources/ gen/images/event/example
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/blog/resources/_gen/images/post
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/blog/resources/_gen/images/post/getting-started
/afs/.dk.sci.pfu.edu.ru/home/s///sgnorsovan/work/blog/resources/_gen/images/post/jupyter
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/blog/resources/ gen/images/post/writing-technical-content
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/blog/resources/_gen/images/project
/afs/ dk sci_pfu_edu_ru/home/s/g/sgnorsovan/work/blog/resources/_gen/images/project/example
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/blog/resources/ gen/images/project/external-project
/afs/ dk sci pfu edu ru/home/s/#/synorsovan/work/blog/resources/ gen/images/authors
/afs/ dk sci pfu edu ru/home/s/e/senorsovan/work/hlog/resources/ gen/images/publication
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/blog/resources/ gen/images/publication/conference-paper
afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/blog/resources/_gen/images/publication/preprint/
afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/blog/resources/_gen/images/publication/journal-article
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/blog/resources/_gen/assets
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/blog/resources/_gen/assets/scss/scss
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io
afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io/.git
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io/.git/hooks
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io/.git/info
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io/.git/refs
afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/shushaaaa.github.io/.git/refs/heads
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/shushaaaa.github.io/.git/refs/tags
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/shushaaaa.github.io/.git/refs/remotes
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/shushaaa.github.io/.git/refs/remotes/origin
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io/.git/objects
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/shushaaaa.github.io/.git/objects/21
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/work/shushaaaa.github.io/.git/logs
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/work/shushaaaa.github.io/.git/logs/refs/heads
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.texlive2022
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.texlive2022/texmf-var
afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.texlive2022/texmf-var/luatex-cache
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.texlive2022/texmf-var/luatex-cache/generic
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.texlive2022/texmf-var/luatex-cache/generic/names
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.texlive2022/texmf-var/luatex-cache/generic/fonts
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/.texlive2022/texmf-var/luatex-cache/generic/fonts/otl
afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.pki
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsovan/.pki/nssdb
/afs/.dk.sci.pfu.edu.ru/home/s/e/senorsovan/cbir
/afs/,dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/.fltk
/afs/ dk.sci_nfu_edu_ru/home/s/e/senorsovan/monthly
/afs/ dk sci nfu edu ru/home/s/e/senorsovan/reports/monthly
/afs/.dk.sci.pfu.edu.ru/home/s/g/sgnorsoyan/reports/monthly/monthly
```

Рис. 18: команда find

Результаты

Ознакомилась с инструментами поиска файлов и фильтрацией текстовых данных, приобрела практические навыки, как по управлению процессами, так и по проверке использования диска и обслуживанию файловых систем.