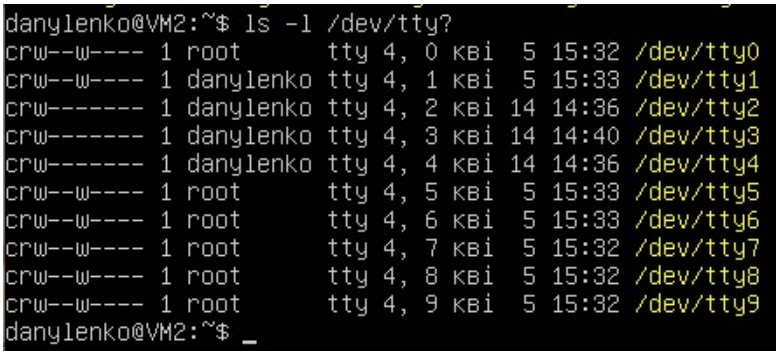
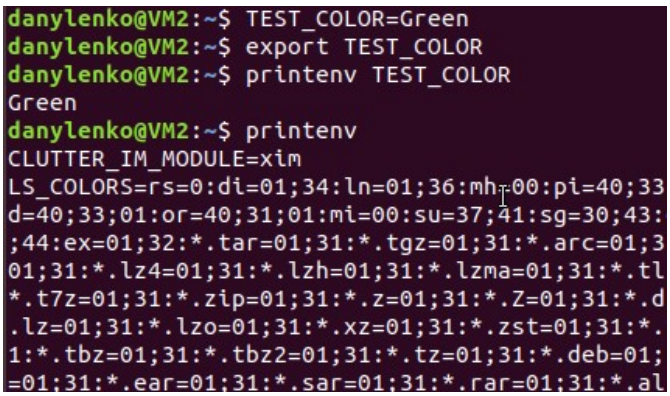
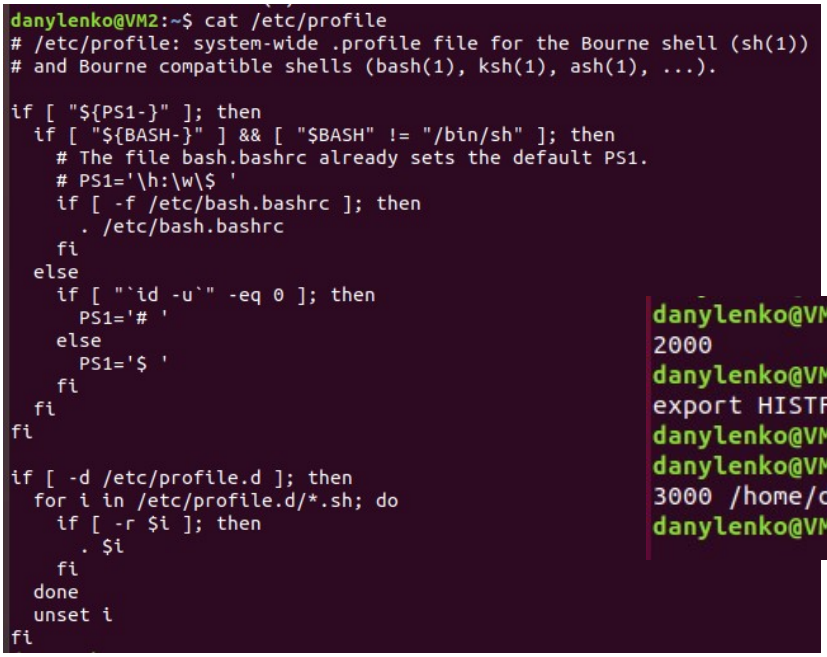
EPAM University Programs
DevOps external course
Module 4 DevOps Introduction
TASK 4.2

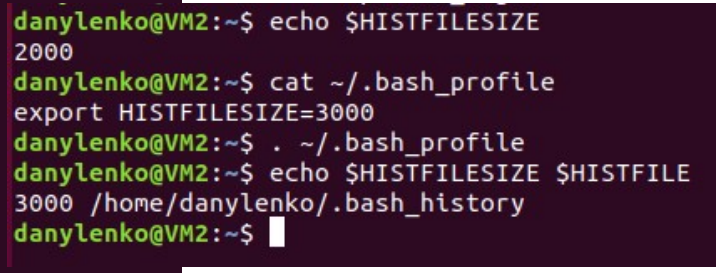
Danylenko - Homework

1. Set up Linux Virtual Machine in VirtualBox.
2. Familiarize yourself with the commands and utilities listed in the presentation (switching between **virtual terminals** (consoles); **printenv**; content of **/etc/profile** and **~/.bash_profile**, **$echo $HISTFILE $HISTSIZE $HISTFILESIZE**, **who**, **w**, **whoami**, **id**). Make 5 screenshots.









```
danylenko@VM2:~$ who
danylenko :0           2020-04-14 15:55 (:0)
danylenko@VM2:~$ who --a
          system boot  2020-04-14 15:54
danylenko ? :0           2020-04-14 15:55   ?          2800 (:0)
          run-level 5  2020-04-14 15:55
LOGIN     tty2         2020-04-14 15:57              6915 id=tty2
danylenko@VM2:~$ whoami
danylenko
danylenko@VM2:~$ whoami --help
Usage: whoami [OPTION]...
Print the user name associated with the current effective user ID.
Same as id -un.

      --help     display this help and exit
      --version  output version information and exit

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Full documentation at: <http://www.gnu.org/software/coreutils/whoami>
or available locally via: info '(coreutils) whoami invocation'
danylenko@VM2:~$ id
uid=1000(danylenko) gid=1000(danylenko) groups=1000(danylenko),4(adm),24(cdrom),27(su
(sambashare),128(lxd),997(microk8s),998(docker)
danylenko@VM2:~$ id -u
1000
danylenko@VM2:~$ id -un
danylenko
danylenko@VM2:~$ id -gn
danylenko
danylenko@VM2:~$ id -Gn
danylenko adm cdrom sudo dip plugdev lpadmin sambashare lxd microk8s docker
danylenko@VM2:~$ w
 16:14:25 up 20 min,  1 user,  load average: 0,99, 0,80, 1,00
USER     TTY      FROM             LOGIN@   IDLE   JCPU   PCPU WHAT
danylenk :0       :0               15:55   ?xdm?   3:44   0.00s /usr/lib/gdm3/g
danylenko@VM2:~$ w --help
```

3. Familiarize yourself with the commands (***uname, hostname, uptime, shutdown, halt, reboot, init…***). Make 5 screenshots.

```
danylenko@VM2:~$ hostname -f && hostname -I && hostname -i
VM2.Danylenko
10.0.2.15 10.0.3.1 172.18.0.1 10.1.95.0 10.1.95.1
127.0.1.1
danylenko@VM2:~$ uname
Linux
danylenko@VM2:~$ uname -a
Linux VM2 5.3.0-46-generic #38~18.04.1-Ubuntu SMP Tue Mar 31 04:17:56 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux
danylenko@VM2:~$
```

```
danylenko@VM2:~$ uptime -help

Usage:
 uptime [options]

Options:
 -p, --pretty   show uptime in pretty format
 -h, --help     display this help and exit
 -s, --since    system up since
 -V, --version  output version information and exit

For more details see uptime(1).
danylenko@VM2:~$ uptime -p && uptime -s && uptime -V
up 32 minutes
2020-04-14 15:54:25
uptime from procps-ng 3.3.12
```

```
danylenko@VM2:~$ shutdown --help
shutdown [OPTIONS...] [TIME] [WALL...]

Shut down the system.

     --help      Show this help
  -H --halt      Halt the machine
  -P --poweroff  Power-off the machine
  -r --reboot    Reboot the machine
  -h             Equivalent to --poweroff, overridden by --halt
  -k             Don't halt/power-off/reboot, just send warnings
     --no-wall   Don't send wall message before halt/power-off/reboot
  -c             Cancel a pending shutdown
danylenko@VM2:~$ shutdown -r 3
Shutdown scheduled for Tue 2020-04-14 16:35:25 EEST, use 'shutdown -c' to cancel.
danylenko@VM2:~$ shutdown -c
```

```
danylenko@VM2:~$ halt --help
halt [OPTIONS...]

Halt the system.

     --help      Show this help
     --halt      Halt the machine
  -p --poweroff  Switch off the machine
     --reboot    Reboot the machine
  -f --force     Force immediate halt/power-off/reboot
  -w --wtmp-only Don't halt/power-off/reboot, just write wtmp record
  -d --no-wtmp   Don't write wtmp record
     --no-wall   Don't send wall message before halt/power-off/reboot
danylenko@VM2:~$ reboot --help
reboot [OPTIONS...] [ARG]

Reboot the system.

     --help      Show this help
     --halt      Halt the machine
  -p --poweroff  Switch off the machine
     --reboot    Reboot the machine
  -f --force     Force immediate halt/power-off/reboot
  -w --wtmp-only Don't halt/power-off/reboot, just write wtmp record
  -d --no-wtmp   Don't write wtmp record
     --no-wall   Don't send wall message before halt/power-off/reboot
```

```
danylenko@VM2:~$ init --help
init [OPTIONS...] {COMMAND}

Send control commands to the init daemon.

     --help      Show this help
     --no-wall   Don't send wall message before halt/power-off/reboot

Commands:
  0              Power-off the machine
  6              Reboot the machine
  2, 3, 4, 5     Start runlevelX.target unit
  1, s, S        Enter rescue mode
  q, Q           Reload init daemon configuration
  u, U           Reexecute init daemon
danylenko@VM2:~$ man init
```

4. Familiarize yourself with the help commands (***man, info, find, locate, whereis, less|zless in /usr/share/doc***). Make 5 screenshots.

```
DESCRIPTION
       man  is  the system's manual pager.  Each page argument given to man is normally the name of a program, utility or
       function.  The manual page associated with each of these arguments is then found and  displayed.   A  section,  if
       provided,  will  direct man to look only in that section of the manual.  The default action is to search in all of
       the available sections following a pre-defined order ("1 n l 8 3 2 3posix 3pm 3perl 3am 5 4 9  6  7"  by  default,
       unless overridden by the SECTION directive in /etc/manpath.config), and to show only the first page found, even if
       page exists in several sections.

       The table below shows the section numbers of the manual followed by the types of pages they contain.

       1   Executable programs or shell commands
       2   System calls (functions provided by the kernel)
       3   Library calls (functions within program libraries)
       4   Special files (usually found in /dev)
       5   File formats and conventions eg /etc/passwd
       6   Games
       7   Miscellaneous (including macro packages and conventions), e.g. man(7), groff(7)
       8   System administration commands (usually only for root)
       9   Kernel routines [Non standard]

       A manual page consists of several sections.

       Conventional section names include NAME, SYNOPSIS, CONFIGURATION, DESCRIPTION, OPTIONS, EXIT STATUS, RETURN VALUE,
       ERRORS, ENVIRONMENT, FILES, VERSIONS, CONFORMING TO, NOTES, BUGS, EXAMPLE, AUTHORS, and SEE ALSO.
Manual page man(1) line 9 (press h for help or q to quit)
```

```
2 Invoking Info
***************

GNU Info accepts several options to control the initial node or nodes
being viewed, and to specify which directories to search for Info files.
Here is a template showing an invocation of GNU Info from the shell:

     info [OPTION...] [MANUAL] [MENU-OR-INDEX-ITEM...]

   Info will look for an entry called MANUAL in the directory files,
which are named 'dir', that it finds in its search path.  The search is
case-insensitive and considers substrings.  (If MANUAL is not given, by
default Info displays a composite directory listing, constructed by
combining the 'dir' files.)  A basic example:

     info coreutils

   This looks for an entry labelled 'coreutils', or 'Coreutils', etc.,
and if found, displays the referenced file (e.g., 'coreutils.info') at
the location given.  'info coreu' will find it too, if there is no
better match.

   Another example:

     info ls

   Assuming the normal 'dir' entry for 'ls', this will show the 'ls'
documentation, which happens to be within the 'coreutils' manual rather
than a separate manual.  The 'dir' entries can point to an any node
within a manual, so that users don't have to be concerned with the exact
structure used by different authors.
```

```
danylenko@VM2:~$ sudo find -name "test_file"
./Desktop/folder/test_file
danylenko@VM2:~$ sudo find -maxdepth 1 -name "*_file"
./remote_file
./local_file
danylenko@VM2:~$ sudo find ~/*/ -maxdepth 2 -name "*_file"
/home/danylenko/Desktop/folder/remote_file
/home/danylenko/Desktop/folder/test_file
danylenko@VM2:~$ sudo find ~/*/ -maxdepth 2 -name "*_file" -exec cat {} +
danylenko-remote-file
danylenko
danylenko@VM2:~$
```

```
danylenko@VM2:~$ locate *_file*
/home/danylenko/local_file
/home/danylenko/remote_file
/home/danylenko/Desktop/folder/remote_file
danylenko@VM2:~$ locate ~/*_file
/home/danylenko/local_file
/home/danylenko/remote_file
^[[Adanylenko@VM2:~$ locate ~/*/*/*_file
/home/danylenko/Desktop/folder/remote_file
/home/danylenko/Desktop/folder/test_file
```

```
danylenko@VM2:~$ whereis whereis
whereis: /usr/bin/whereis /usr/share/man/man1/whereis.1.gz
danylenko@VM2:~$ whereis nano
nano: /bin/nano /usr/share/nano /usr/share/man/man1/nano.1.gz /usr/share/info/nano.info.gz
danylenko@VM2:~$ whereis vi
vi: /usr/bin/vi /usr/share/man/man1/vi.1.gz
danylenko@VM2:~$ whereis -B ~ -f *_file
local_file: /home/danylenko/local_file
remote_file: /home/danylenko/remote_file
danylenko@VM2:~$ whereis -B ~/*/*/ -f test_file
test_file: /home/danylenko/Desktop/folder/test_file
danylenko@VM2:~$
```

```
whereis: /usr/bin/whereis /usr/share/man/man1/whereis.1.gz
danylenko@VM2:~$ zless /usr/share/man/man1/whereis*
danylenko@VM2:~$ zless /usr/share/man/man1/ls*
danylenko@VM2:~$ ls /usr/share/doc | less
danylenko@VM2:~$ ls /usr/share/doc | zless
danylenko@VM2:~$ ls /usr/share/man/man1/whereis* | less

[4]+  Stopped                 ls --color=auto /usr/share/man/man1/whereis* | less
danylenko@VM2:~$ ls /usr/share/man/man1/whereis* | zless

[5]+  Stopped                 ls --color=auto /usr/share/man/man1/whereis* | zless
danylenko@VM2:~$ cat /usr/share/man/man1/whereis* | zless
danylenko@VM2:~$ cat /usr/share/man/man1/whereis* | less
```