DevOps Crash Course

by Oleksii Yakivchik

softserve

About me

Me!

- 22 years old

- Master of Applied Mathematics

- Like continuous learning and self-development

- 1 year of DevOps experience

First steps:

- Linux tinkering

- SS IT academy

- A lot of reading

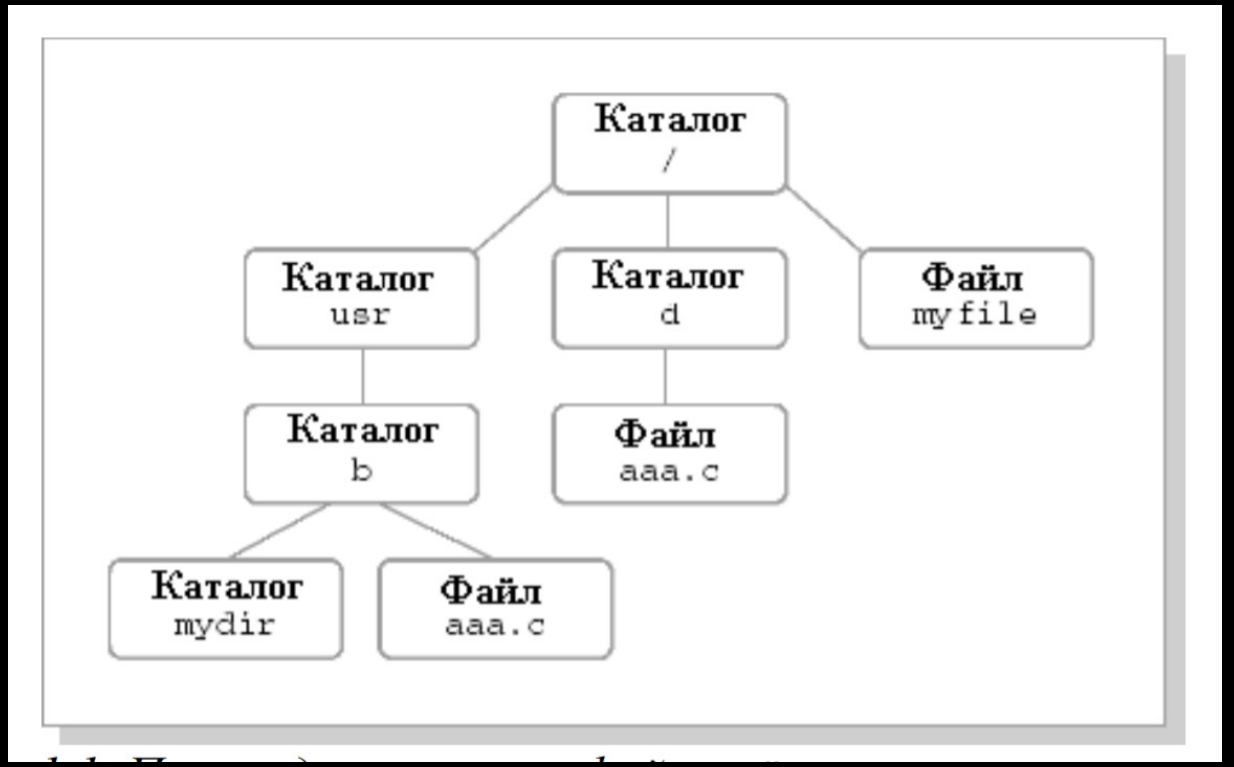
- A lot of time for experiments

Processes in Linux

- ps -f – user’s processes
- ps -ef – all processes

Linux Filesystem

- / - root directory
- “/home/<your_user>/.ssh” - absolute path
- “~/.ssh” - relative path
- Commands:
- pwd – current directory
- ls -al – show content of current directory
- cd <path> - change current directory
- cp <FILE_1> <FILE_2> – copy FILE_1 to FILE2
- mv <FILE_1> <FILE_2> – move FILE_1 to FILE2



Linux Filesystem

- touch FILE – create file
- rm FILE – delete file
- cat FILE – show content of file
- df – report file system disk usage
- du – estimate file space usage

Users and groups

- User can be a member of several groups
- getent group – get all groups
- sudo groupadd <group_name> – add new group
- sudo usermod -aG <group_name> <user_name> – add user to group
- sudo groupdel <group_name> – delete group #Debian-based

  sudo gpasswd -d <user_name> <group_name> #Universal
- sudo deluser <user> <group> – delete user from group

File ownership

- ls -al
- u - user g - group o - other a – all
- “-” - regular file, “d” - directory
- chmod – change permissions
- chown – change owner
- chgrp – change group

Unix / Linux - Shell Input/Output Redirections

- who > users
- echo line 1 > users
- echo line 2 >> users
- wc -l < users
- echo hello > /dev/null
- https://www.tutorialspoint.com/unix/unix-io-redirections.htm

Sr.No.	Command & Description
1	**pgm > file** Output of pgm is redirected to file
2	**pgm < file** Program pgm reads its input from file
3	**pgm >> file** Output of pgm is appended to file
4	**n > file** Output from stream with descriptor **n** redirected to file
5	**n >> file** Output from stream with descriptor **n** appended to file
6	**n >& m** Merges output from stream **n** with stream **m**
7	**n <& m** Merges input from stream **n** with stream **m**
8	**<< tag** Standard input comes from here through next tag at the start of line
9	**|** Takes output from one program, or process, and sends it to another