

<epam>

What is Bash

- What is bash/sh
- Bash usecases

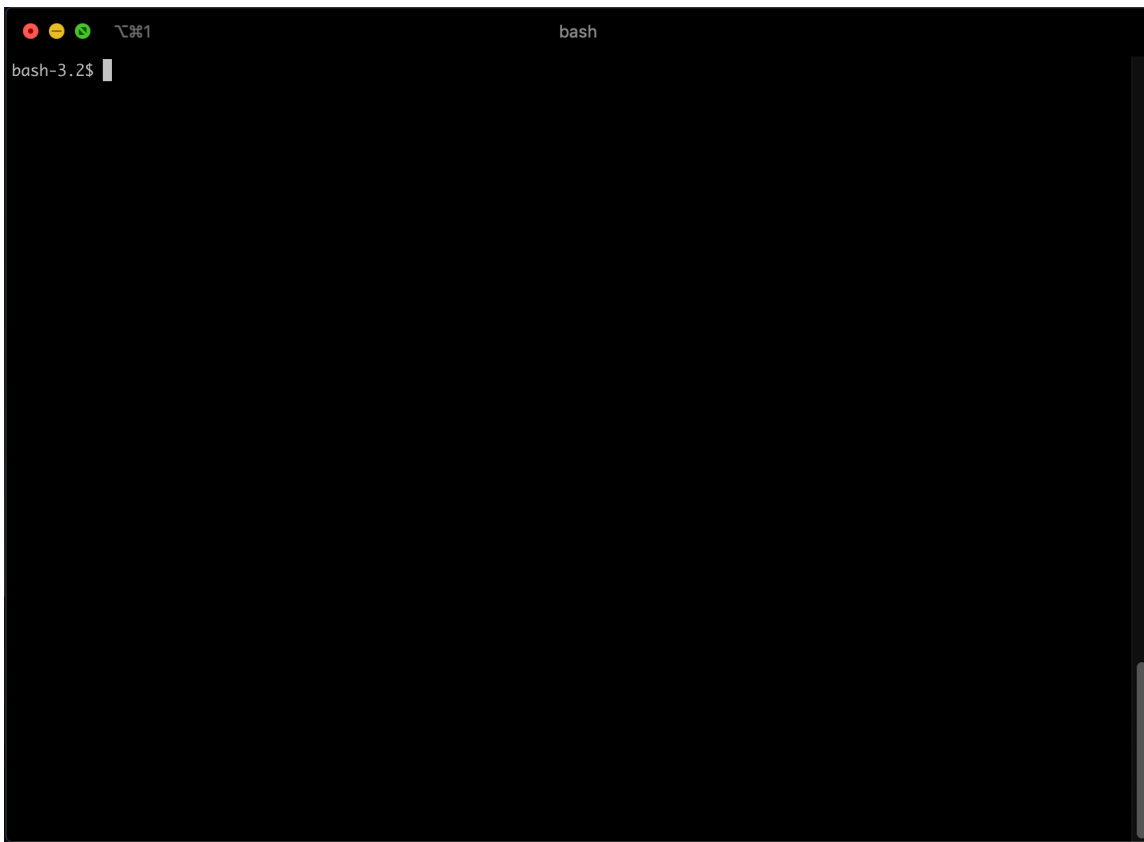


TRAINING
C E N T E R

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What is Bash?

- Interpreted command programming language
- CLI or Shell – user interface for Unix-like operating systems



What is Bash?

BASH – **B**ourne **A**gain(?) **S**hell



SH – Bourne **Sh**ell

Sh is the earliest Unix shell:

- Narrow functionality
- + Available on any Unix system



Shell Command Language

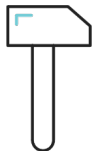
Shell Command Language –
Interpreted command language.

/bin/bash – Interpreter binary



```
1  #!/bin/bash
2  function run_server {
3      SERVER_STATIC_PORT=49151
4      if [[ `lsof -i:${SERVER_STATIC_PORT}` == "" ]]; then
5          SERVER_PORT=$SERVER_STATIC_PORT
6      else
7          for port in $(seq `shuf -i 49900-65535 -n 1` 65535); do
8              echo "Checking if ${port} is free to bind the server..."
9              [[ `lsof -i:$port` == "" ]] && export SERVER_PORT=${port} && break
10             echo "Port ${port} is already in use..."
11         done
12     fi
13     echo "Port for the server: ${SERVER_PORT}"
14     docker run \
15         --rm -d \
16         --name web-server \
17         -e TIMEOUT=7200 \
18         -p ${SERVER_PORT}:80 \
19         nginx:latest \
20         && echo "Successfully started server on port ${SERVER_PORT}."
21 }
22
23 run_server
24
```

Bash use cases



Running Ad-Hoc commands Interaction with OS

- Navigate through file system
- Create directories and files
- Install packages (apt, yum, apk, etc.)
- Manage OS processes (jobs)
- Use various utilities (e.g. curl, nc, wget, etc.)



Scripting & Automation

- Upload several thousands log files to log server
- Run web server with all required dependencies
- Deploy applications
- Automatically cleanup disk space
- And many more!



Thanks for watching!

