

# DevOps Crash Course



by Petro Yanush

softserve

# DevOps and VM

<https://www.virtualbox.org/wiki/Downloads>

[http://isoredirect.centos.org/centos/7/isos/x86\\_64/](http://isoredirect.centos.org/centos/7/isos/x86_64/)

<https://vitux.com/install-centos-with-virtualbox-on-windows/>

[https://linuxhint.com/install\\_centos8\\_virtualbox/](https://linuxhint.com/install_centos8_virtualbox/)

<https://putty.org.ru/download.html>

[https://upcloud.com/community/tutorials/use-ssh-keys-authentication/?utm\\_term=&utm\\_campaign=DSA&utm\\_source=adwords&utm\\_medium=ppc&hsa\\_acc=9391663435&hsa\\_cam=7185608860&hsa\\_grp=81739862313&hsa\\_ad=391197952986&hsa\\_src=g&hsa\\_tgt=aud-877864361644:dsa-460992423274&hsa\\_kw=&hsa\\_mt=b&hsa\\_net=adwords&hsa\\_ver=3&gclid=Cj0KCQiAgomBBhDXARIsAFNyUqOEyCMdm2Pc5a3QojGrDrUoOk3bSJRxe5Yn5MqCT4B13hJTBgsdJtoaAu2GEALw\\_wcB](https://upcloud.com/community/tutorials/use-ssh-keys-authentication/?utm_term=&utm_campaign=DSA&utm_source=adwords&utm_medium=ppc&hsa_acc=9391663435&hsa_cam=7185608860&hsa_grp=81739862313&hsa_ad=391197952986&hsa_src=g&hsa_tgt=aud-877864361644:dsa-460992423274&hsa_kw=&hsa_mt=b&hsa_net=adwords&hsa_ver=3&gclid=Cj0KCQiAgomBBhDXARIsAFNyUqOEyCMdm2Pc5a3QojGrDrUoOk3bSJRxe5Yn5MqCT4B13hJTBgsdJtoaAu2GEALw_wcB)

# About me!

## Me!

- 33 years old
- Head of IT department in the past
- Like microelectronics
- 8+ years of admin experience

## First steps:

- Experience in administration
- SS IT academy
- Working on time management
- A lot of reading
- A lot of time for experiments

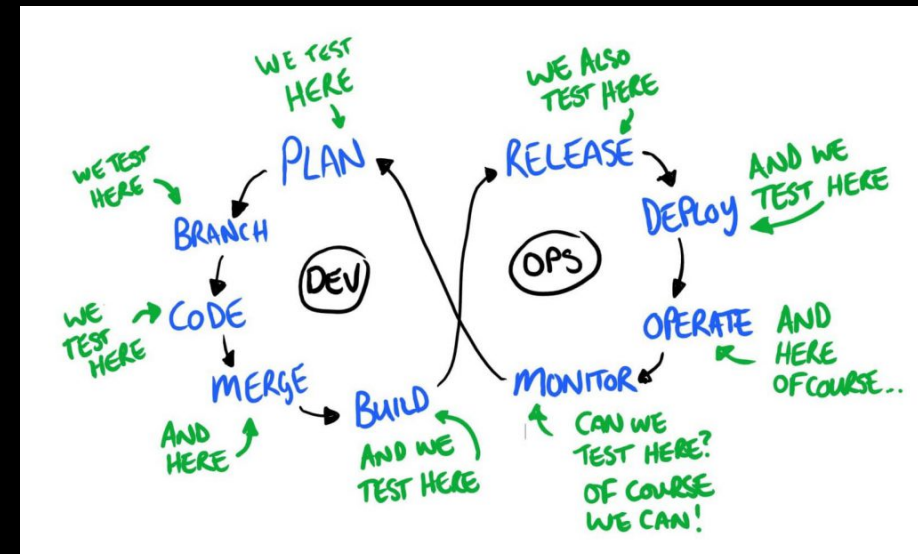
# About me in IT academy

## → LIFE-HACKS ←

- Better if you have PC with a lot RAM & CORES
- Don't be afraid to PING
- Use whiteboard for planning
- Teachers also like sweets ;)
- If you wanna ask mentor prepare list with questions on the paper

## → Interview ←

- Don't be silent
- Be in time
- Networks, linux, bash, docker !MUST!
- Show enthusiasm and fast learning
- Sleep sometimes :)



# Real DevOps

## It's DevOps!



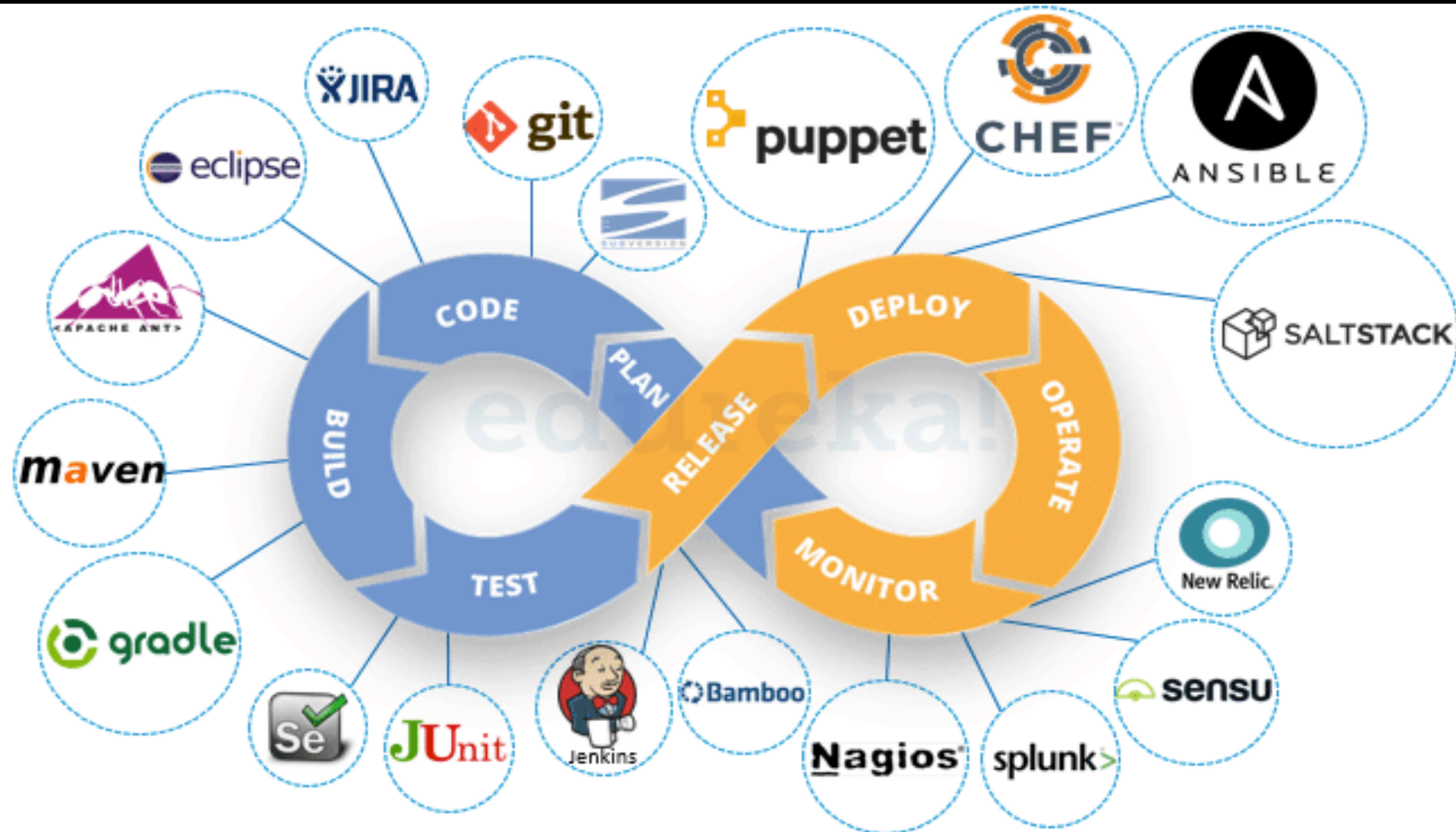
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# Developers & Operations Holy-War STOP!





# DevOps Project Tools



# PERIODIC TABLE OF DEVOPS TOOLS (V2)

EMBED DOWNLOAD ADD

Os	Open Source	SCM	Database Mgmt	Build
Fr	Free	CI	Repo Mgmt	Testing
Fm	Freemium	Deployment	Config / Provisioning	Containerization
Pd	Paid	Cloud / IaaS / PaaS	Release Mgmt	Collaboration
En	Enterprise	BI / Monitoring	Logging	Security

PERIODIC TABLE OF DEVOPS TOOLS (v2)																		EMBED		DOWNLOAD		ADD	
1 Fm Gh Github																	2 Fm Aws Amazon Web						
3 Os Gt Git	4 En Dt Datical																	5 En Ch Chef	6 En Pu Puppet	7 Os An Ansible	8 Os Sl Salt	9 Os Dk Docker	10 Pd Az Azure
11 Fm Bb Bitbucket	12 Os Lb Liquibase																	13 Os Ot Otto	14 En Bl BladeLogic	15 Os Va Vagrant	16 Fr Tf Terraform	17 Os Rk rkt	18 En Gc Google Cloud
19 Os Gl GitLab	20 En Rg Redgate	21 Os Mv Maven	22 Os Gr Gradle	23 Os At ANT	24 Os Fn FitNesse	25 Fr Se Selenium	26 Os Ga Gatling	27 Fr Dh Docker Hub	28 Os Jn Jenkins	29 Pd Ba Bamboo	30 Os Tr Travis CI	31 Pd Gd Deployment Manager	32 Os Sf SmartFrog	33 Os Cn Consul	34 Os Bc Bcfg2	35 Os Mo Mesos	36 En Rs Rackspace						
37 Os Sv Subversion	38 En Dm DBmaestro	39 Os Gn GrunT	40 Os Gp Gulp	41 Os Br Broccoli	42 Fr Cu Cucumber	43 Os Cj Cucumber.js	44 Fr Qu Qunit	45 Os Npm npm	46 Fm Cs Codeship	47 Pd Vs Visual Studio	48 Fm Cr CircleCI	49 Fr Cp Capistrano	50 Fr Ju JuJu	51 Os Rd Rundeck	52 Os Cf CFEngine	53 Fr Ds Swarm	54 Os Op OpenStack						
55 Os Hg Mercurial	56 En Dp Delphix	57 Fr Sb sbt	58 Os Mk Make	59 Os Ck CMake	60 Fr Jt JUnit	61 Fr Jm JMeter	62 Fr Tn TestNG	63 Os Ay Artifactory	64 Fm Tc TeamCity	65 Fm Sh Shippable	66 Os Cc CruiseControl	67 En Ry RapidDeploy	68 Fm Cy CodeDeploy	69 En Oc Octopus Deploy	70 En No CA Nolio	71 Os Kb Kubernetes	72 Fm Hr Heroku						
73 En Cw ISPW	74 En Id Idera	75 Os Msb MSBuild	76 Os Rk Rake	77 Fr Pk Packer	78 Os Mc Mocha	79 Fr Km Karma	80 Os Jm Jasmine	81 Os Nx Nexus	82 Os Co Continuum	83 Fm Ct Continua CI	84 Pd So Solano CI	85 En Xld XL Deploy	86 En EB ElasticBox	87 Fm Dp Deploybot	88 En Ud UrbanCode Deploy	89 Os Nm Nomad	90 En Os OpenShift						

**XebiaLabs**  
Enterprise DevOps

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Publication Guidelines

91 En Xlr XL Release	92 En Ur UrbanCode Release	93 En Bm BMC Release	94 En Ca CA Release Automation	95 En Au Automic	96 En Pl Plutora Release	97 En Sr Micro Focus Release	98 Pd Tfs Team Foundation	99 Fm Tl Trello	100 Pd Jr Jira	101 Fm Rf HipChat	102 Fm Sl Slack	103 Fm Fd Flowdock	104 Pd Pv Pivotal Tracker	105 En Sn ServiceNow
106 Os Ki Kibana	107 Fm Nr New Relic	108 En Dt Dynatrace	109 Os Ni Nagios	110 Os Zb Zabbix	111 En Dd Datadog	112 Os El Elasticsearch	113 Fm Ad AppDynamics	114 En Sp Splunk	115 Fm Le Logentries	116 Fm Sl Sumo Logic	117 Os Ls Logstash	118 Os Sn Snort	119 Os Tw Tripwire	120 En Ff Fortify WebInspect



# DevOps Lifecycle

DevOps Lifecycle can be broadly broken down into the below DevOps Stages:

- Continuous Development
- Continuous Integration
- Continuous Testing
- Continuous Monitoring
- Virtualization and Containerization

These stages are the building blocks to achieve DevOps as a whole.

# DevOps and Unix

Try to BASH something

```
adduser <username>
```

```
passwd <username>
```

```
usermod -aG wheel <username>
```

```
cat /etc/passwd
```

```
visudo
```

```
## Allow root to run any commands anywhere
```

```
root ALL=(ALL) ALL
```

```
UserName ALL=(ALL) ALL
```

```
sudo ls -la /root
```

# DevOps and Unix

Try to BASH something

```
#Create the crash user expected to be on machines  
?
```

```
sudo chmod 0440 /etc/sudoers.d/crash
```

```
sudo chown -R crash:crash /home/crash/.ssh/
```

```
#Disable SSH access for root
```

```
sudo sed -i 's/#PermitRootLogin yes/PermitRootLogin no/g' \ /etc/ssh/sshd_config
```

```
sudo systemctl restart sshd
```

**ВСЕ БУДЕ ДОБРЕ – Automate all things**