# Linux Professional Institute LPIC-OT 701-100 DevOps Tools Engineer

Official Course:

Linux Professional Institute

LPIC-OT (701-100) DevOps
Tools Engineer

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IT-Training.pro e Authorized Training Platinum Level Partner на Linux Professional Institute и е първата компания в България достигаща до това ниво. Всички LPIC курсове са съгласно официалната сертификационна програма с гарантирано качество и успеваемост.

IT-Training.pro е първата компания в България, провеждаща обучения и сертификация за изпит LPIC-OT и разполага

# със сертифицирани инструкториза проевеждане на Официален Курс. Доверете се на опита ни!

### 3a Kypca (About this Course):

• The Linux Professional Institute DevOps Tools Engineer sets you apart by demonstrating that you are skilled in working with tools that help to increase IT process efficiency and enable product innovation. Whether your focus is on system administration or software development, this certification proves that you have skills that are in high demand — in every industry.

# Цели — Какво ще научите (Course Goals/Skills):

- OpenStack Swift
- OpenStack Trove
- OpenStack Zagar
- CloudFoundry
- OpenShift
- Features and concepts of object storage
- Features and concepts of relational and NoSQL databases
- Features and concepts of message brokers and message queues
- Features and concepts of big data services

- Features and concepts of application runtimes / PaaS
- Features and concepts of content delivery networks
- Understand Git concepts and repository structure
- Manage files within a Git repository
- Manage branches and tags
- Work with remote repositories and branches as well as submodules
- Merge files and branches
- Awareness of SVN and CVS, including concepts of centralized and distributed SCM solutions
- git
- Understand the concepts of Continuous Integration and Continuous Delivery
- Understand the components of a CI/CD pipeline, including builds, unit, integration and acceptance tests, artifact management, delivery and deployment
- Understand deployment best practices
- Understand the architecture and features of Jenkins, including Jenkins Plugins, Jenkins API, notifications and distributed builds
- Define and run jobs in Jenkins, including parameter handling
- Fingerprinting, artifacts and artifact repositories
- Understand how Jenkins models continuous delivery pipelines and implement a declarative continuous delivery pipeline in Jenkins
- Awareness of possible authentication and authorization models
- Understanding of the Pipeline Plugin
- Understand the features of important Jenkins modules such as Copy Artifact Plugin, Fingerprint Plugin, Docker Pipeline, Docker Build and Publish plugin, Git Plugin, Credentials Plugin
- Awareness of Artifactory and Nexus
- Step, Node, Stage
- Jenkins SDL
- Jenkinsfile

- Declarative Pipeline
- Blue-green and canary deployment
- Understand the Docker architecture
- Use existing Docker images from a Docker registry
- Create Dockerfiles and build images from Dockerfiles
- Upload images to a Docker registry
- Operate and access Docker containers
- Connect container to Docker networks
- Use Docker volumes for shared and persistent container storage
- Use Docker Machine to setup a Docker host
- Understand Docker networking concepts, including overlay networks
- Create and manage Docker networks
- Understand Docker storage concepts
- Create and manage Docker volumes
- Awareness of Flocker and flannel
- Understand the concepts of service discovery
- Basic feature knowledge of CoreOS Container Linux, rkt and etcd
- Understand security risks of container virtualization and container images and how to mitigate them
- Understanding the features and concepts of cloud-init, including user-data and initializing and configuring cloud-init
- Use cloud-init to create, resize and mount file systems, configure user accounts, including login credentials such as SSH keys and install software packages from the distribution's repository
- Understand the features and implications of IaaS clouds and virtualization for a computing instance, such as snapshotting, pausing, cloning and resource limits.
- Understand the principles of automated system configuration and software installation
- Create and maintain inventory files
- Understand how Ansible interacts with remote systems
- Manage SSH login credentials for Ansible, including

- using unprivileged login accounts
- Create, maintain and run Ansible playbooks, including tasks, handlers, conditionals, loops and registers
- Set and use variables
- Maintain secrets using Ansible vaults
- Write Jinja2 templates, including using common filters, loops and conditionals
- Understand and use Ansible roles and install Ansible roles from Ansible Galaxy
- Understand and use important Ansible tasks, including file, copy, template, ini\_file, lineinfile, patch, replace, user, group, command, shell, service, systemd, cron, apt, debconf, yum, git, and debug
- Awareness of dynamic inventory
- Awareness of Ansibles features for non-Linux systems
- Awareness of Ansible containers
- Manifest, Class, Recipe, Cookbook
- puppet
- chef
- chef-solo
- chef-client
- chef-server-ctl
- knife
- Prometheus, Node exporter, Pushgateway, Altermanager,
   Grafana
- Service exploits, brute force attacks, and denial of service attacks
- Security updates, packet filtering and application gateways
- Virtualization hosts, DNS and load balancers
- Understand how application and system logging works
- Understand the architecture and functionality of Logstash, including the lifecycle of a log message and Logstash plugins
- Understand the architecture and functionality of Elasticsearch and Kibana in the context of log data management (Elastic Stack)

- Configure Logstash to collect, normalize, transform and store log data
- Configure syslog and Filebeat to send log data to Logstash
- Configure Logstash to send email alerts
- Understand application support for log management

# Курсът е предназначен за (Audience):

- Linux Engineers
- Linux SysAdmins
- Linux Professionals
- Junior DevOps Engineers

#### Формат на курса (Course Format):

[table id=1 /]

# Език на курса (Course Language Option)

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Може да изберете Език на който да се проведе обучението — български или английски. Всичките ни инструктори владеят свободно английски език.

#### Учебни Материали (Student Guides):

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Учебните материали са достъпни в електронен формат. Могат да се ползват online/offline на всяко устройство. Доживотен достъп.

## Лабораторна среда (Lab Environment):

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Всеки курсист разполага със собствена лаб среда, където се провеждат упражненията, част от курса. Не е необходимо да инсталирате софтуер на компютър или специални изисквания за хардуер.

Участниците в присъствен формат в Учебния ни център разполагат с индивидуален компютър по време на обучението.

# След завършване получавате (At Course Completion):

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Доживотен достъп до видео архив с запис на всяка отделна лекция.

Официален международно признат сертификат за завършен курс на обучение.

### Продължителност (Course Duration):

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- 40 уч.ч. обучение (теория и практика) в извънработно време с продължителност 4 седмици.
- -събота и неделя 10:00 14:00, 14:00 18:00, 18:00 22:00
- понеделник и сряда 19:00 23:00
- вторник и четвъртък 19:00 23:00

#### Плащане



Заявка за издаване на фактура се приема към момента на записването на съответния курс.

Фактура се издава в рамките на 7 дни от потвърждаване на плащането.

### Предстоящи Курсове (Next Class):



[tribe\_events\_list category="lpic-specialist"]
За повече информация използвайте формата за контакт.
Ще се свържем с Вас за потвърждаване на датите.

## Предпоставки (Изисквания) за Участие (Prerequisites):

- Познания по Линукс системна администрация
- Знанията и предпоставките могат да се усвоят най добре след посещаване на курсовете за сертификационно ниво LPIC-1
- ■Преминат курс <u>LPIC-1 101-500</u> и <u>LPIC-1 102-500</u> (силно препоръчително е да разполагате с посочените знания и опит, но не е задължително да сте били на курс)

#### Курсът подготвя за следните сертификационни нива

# 701-100 LPIC DevOps Tools Engineer

• <u>Може да се сертифицирате в нашия тест център с ваучер с отстъпка от цената на изпит.</u>