Linux Professional Institute LPIC-OT 700-100 DevOps Tools Engineer

Official Course: Linux Professional Institute LPIC-OT (701-100) DevOps Tools Engineer

IT-Training.pro е Authorized Training Partner на Linux Professional Institute.

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.

Course Goals/Skills

- OpenStack Swift
- OpenStack Trove
- OpenStack Zaqar
- 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

Audience

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

Course Format

Присъствен (Classroom) Курс в Учебната ни зала или В Офис на Клиент	Онлайн (Online/Virtual) Курс във виртуална зала с инструктор

Course Language Option

Български (Bulgarian)	Английски (English)

You can select your course language. All of our trainers are bi-lingual.

Student Guides

The training materials are available in electronic format. They can be used online / offline on any device. Lifetime access.

Lab Environment

Each student has their own lab environment where the exercises take place, part of the course. You do not need to install software on a computer or special hardware requirements.
Participants in a face-to-face format in our Training Center have an individual computer during the training.

At Course Completion

Lifetime Access - Video Archive 24/7	**Certificate of Course Completion**

Lifetime access to a video archive with recording of each individual lecture.
Official internationally recognized certificate for completed training course.

Course Duration

5 working days (09:00 – 17:00)

or

40 h. training (theory and practice) in overtime with a duration of 4 weeks
Saturday and Sunday 10:00 – 14:00, 14:00 – 18:00, 18:00 – 22:00
Monday and Wednesday 19:00 – 23:00
Tuesday and Thursday 19:00 – 23:00

Payments:

An application for an invoice is accepted at the time of enrollment in the respective course.

An invoice is issued within 7 days of confirming the payment.

Next Class

Notice
There are no upcoming events.

For more information, use the contact form.
We will contact you to confirm the dates.

Prerequisites

- Knowledge of Linux System Administration
- Knowledge and prerequisites can best be learnt after attending LPIC-1 certification courses
- Take the **LPIC-1 101-500** and **LPIC-1 102-500** course (it is highly recommended that you have the specified knowledge and experience, but you do not necessarily have been on a course)

The course prepares for the following certification levels:

701-100 LPIC DevOps Tools Engineer

- Може да се сертифицирате в нашия тест център с ваучер с отстъпка от цената на изпит.