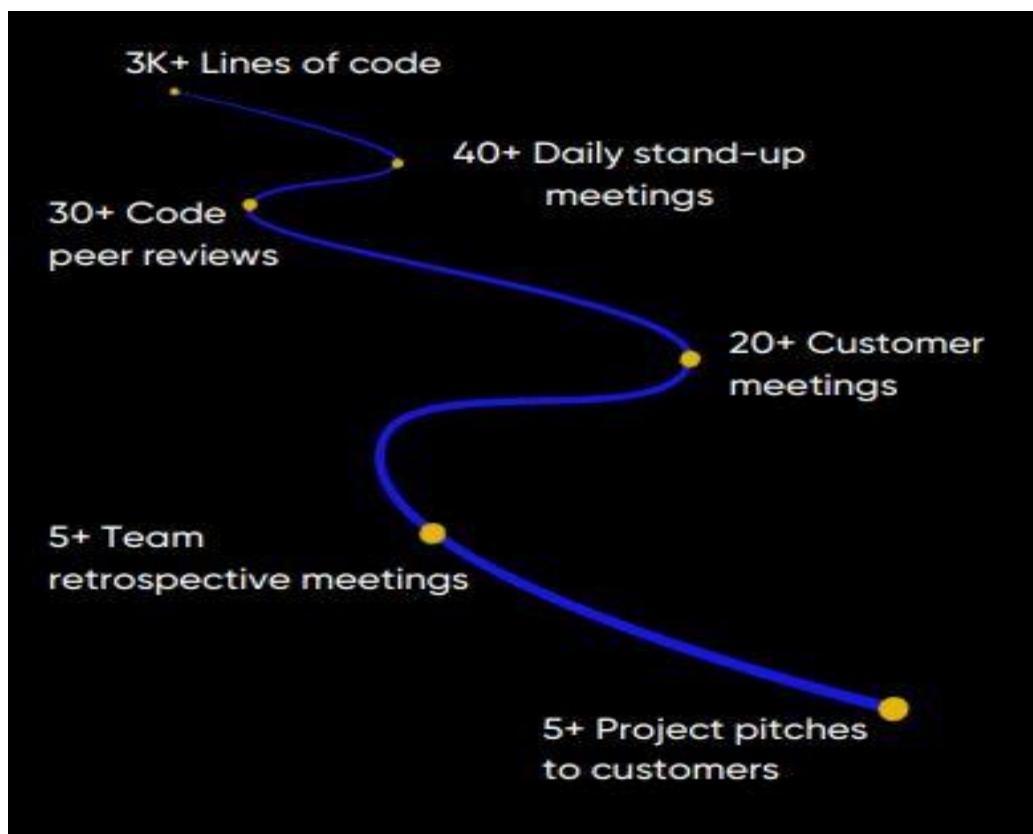
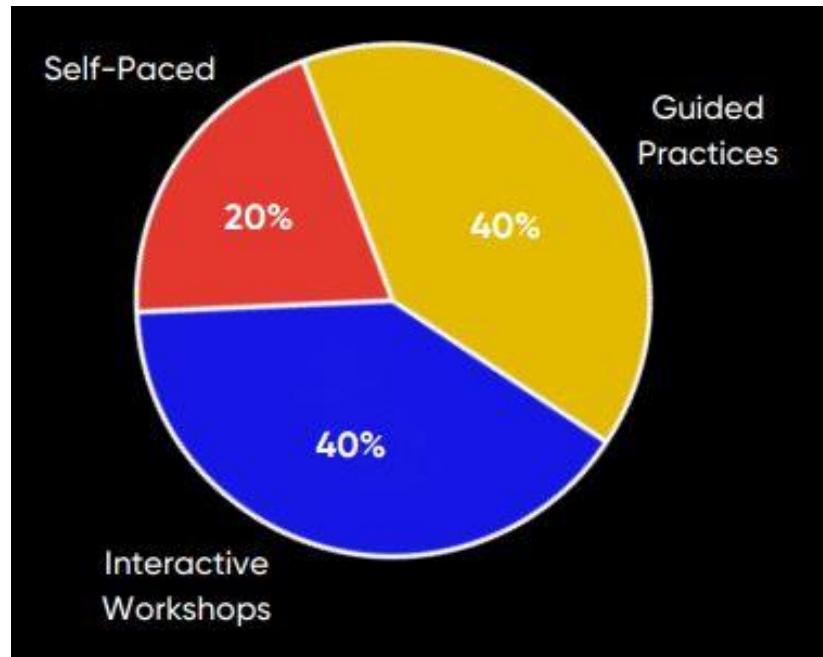


DevOps Boot Camp Curriculum



Linux

Linux history
Linux component
Directory hierarchy
Basic commands
File & directory manipulation
Installing and managing SW (RPM-YUMAPT-get)
User and group administration
Permissions
VI text editor
Initialization files
Process, signal concepts
Redirection & Pipping
Systems, services manipulation (time dependent)
File systems management (Fdisk utility)

Python essentials

Introduction
Programming Intro
Python History
Python Installation
Basic
Syntax
Variables
Data Types
Strings
Lists
Operators
Conditionals and Loops
If-Else Statements
For Loops
While Loops
Pass, Break, and Continue

Functions
Object Oriented Programming in Python
Python Modules

Version control

Version control systems
Introduction to Git
Git Workflow
Git commands
Git in action
Git & Github
Git UI tools

Introduction to cloud

Characteristics of web app
Data centers
Hardware utilization
Application architecture
cloud computing
history of cloud
Cloud service model
Characteristics of web app
Cloud deployment models

Bash script

Quick revision on basic commands
Processes
Sed utility

AWK utility
Shells
Sourcing VS execution
Variables (local, environment
predefined)
Bash scripting tools kit (case, select,
loops, breaks, continue, functions)

Django

Web Development Intro
Django Installation
Django Intro
How Django Works
Django Models
Django URLs
Django Views
Django Forms
Django Templates
Django User
Django Admin

nginx

What's Nginx
Install Nginx
Nginx Configurations
Working with Nginx

Introduction to DevOps

What's DevOps
Agile VS DevOps
DevOps Team & Engineer
Principals of DevOps
DevOps cycle (Phases & tools)
DevOps Objectives
Demo

Microservices

Software industry issues
Monolithic Architecture
Microservice Architecture
Introduction to DevOps tools

Docker

Introduction to Docker
Docker Architecture
Docker Basics (Images-containers)
Docker files
Docker Networking
Docker Storage
Docker Compose
Docker security
Introduction to Swarm

AWS

AWS Account Basics

AWS Global Network

AWS IAM

AWS Network (VPCs, Subnets, IGW, RTs, NACLs, SGs)

AWS EC2 (AMI, EBS, EIP, SGs)

AWS Storage Services (S3, RDS)

AWS Cloud Watch

AWS SNS

AWS Server less Lambda

AWS Cloud Formation

Kubernetes

Why K8s and Difference Between Docker and K8s

Intro “Pods, Replica, Depl, Arch And Desired State”

Core Concepts: K8s Cluster Components

End to End Test

Pods

Replica Set and Replica Controller

Deployment

Demonsets

Services

Namespaces

Limits and Requests

Labels and Selectors

Taints and Toleration
Node Selector and Scheduling
Affinity and Toleration
Application Life Cycle
Storage
Networking
Ingress
Security
Troubleshooting

Jenkins

What is Continuous Integration?
What is Jenkins? – An Introduction.
Jenkins Architecture Types
Jenkins Alternatives
Installing and Configuring Jenkins.
Jenkins Terms and walkthrough GUI
Jobs Types
Users and Permissions Management
Jenkins Integration between Services
using Plugins
Jenkins' s file & Pipeline syntax types
Backup Jenkins Data & Configuration

Ansible

What is Ansible?
Why Ansible?
How Ansible Works?
SSH
Inventory
Playbook
Modules
Roles
Ansible Galaxy

Terraform

What is infrastructure as a code (Iac)?
What is Terraform
Why Terraform?
How Terraform works?
Terraform core
Terraform plugins
Installation
State file
Plan
Apply
Destroy
Module
Workspaces & environments
Variables
Variable definition files
Backend

Monitoring

DevOps Monitoring Introduction
Introduction to Prometheus
Monitoring Basics
Application Monitoring
Infrastructure Monitoring
Managing Alerts
Visualizing Data
Introduction to other Monitoring tools
(Zabbix-Nagios)