

Internship Roadmap for DevOps

# Overview

This is a roadmap for the DevOps interns. Which will cover self-learning, training/KT sessions, and hands-on practice

### **1st week and 2nd Week.** Operating Systems & Linux Basics

### Deep dive into operation system internals. Linux should be your first choice. Here is a list of resources that will help you learn Linux. Also, don't waste a second on picking the right distribution. For learning OS concepts and internals, any distribution would work fine.

Go through any of the links below

* <https://linuxjourney.com/>
* [Linux Tutorial For Beginners](https://www.youtube.com/watch?v=v_1zB2WNN14)
* [Linux Commands for DevOps](https://www.youtube.com/watch?v=GzIFoJBVwh8)

### Once you are familiar with the commands and feel comfortable enough to keep deep diving, learn some OS concepts:

### Memory Management

### Processes

### Kernel

### Virtualization

### **3rd week and 4th week.** Networking Protocols and Version Control with Git

### DHCP, UDP, TCP, HTTP, SSH Learn how these protocols work and what they are used for

* [Git tutorial for beginners](https://www.youtube.com/watch?v=8JJ101D3knE)
* [Complete Git tutorials](https://www.youtube.com/watch?v=evknSAkUIvs&list=PLu0W_9lII9agwhy658ZPA0MTStKUJTWPi)
* [Git Concept](https://dev.to/unseenwizzard/learn-git-concepts-not-commands-4gjc)

### Make sure you are comfortable with the following list once you have done learning Git basics

### Commit changes to a project

### Submit pull/merge requests

### Working with branches

### Rebase changes (change order, squash, ...)

### **5th week and 6th week.** Bash Scripting andProgramming Language

* [Introduction to Bash Scripting Interactive training](https://ebook.bobby.sh/training.html)

### Learn how to write Python scripts to solve simple DevOps problems without a Configuration Management tool.

### Approach:

### Learn the basics of python language

### Best practices

### Most used modules for scripting/DevOps

### Packaging / Writing CLI tools

[Python Scripting](https://github.com/bernardoVale/python-for-devops/blob/master/markdown.md#variables)[For DevOps](https://realpython.com/learning-paths/python-devops/)

Good to have knowledge of Golang

* [Golang Tutorial for Beginners](https://www.youtube.com/watch?v=yyUHQIec83I)

**7th week and 8th week.** Docker and CI/CD using Jenkins

### Docker: -

### [Docker Tutorial for Beginners](https://www.youtube.com/watch?v=fqMOX6JJhGo)

### [Docker Official site](https://docs.docker.com/)

CI/CD using Jenkins: -

### [CI CD Pipeline Using Jenkins](https://www.youtube.com/watch?v=m0a2CzgLNsc)

### [Jenkins for Beginners](https://www.youtube.com/watch?v=FX322RVNGj4)

**For 9th week.** Cloud Concepts (AWS Services)

* [AWS Tutorial](https://www.youtube.com/watch?v=k1RI5locZE4)