

PYTHON, NETWORK AUTOMATION AND DEVNET



SYLLABUS

Points to discuss in class



- Module 1: PYTHON – Beginner to Maestro
(Learn the tool, Build a Fort):
- Module 2: Libraries for CLI automation
(Automating what you already know):
- Module 3: Data serialization and libs
(Your bestfriends for automation, after your Brain):
- Module 4: REST-API and Tools
(You are a DEVELOPER now):
- Module 5: ANSIBLE
(Trendy Topic, Easy Tool):
- Module 6: DEVNET World
(Whole new way of talking with Routers and Switches):
- Module 7: Cisco Devices Programmability Options
(Every Box is special):

FOR INQUIRY / PRICING / REGISTRATION



JOIN OUR WHATSAPP GROUP FOR
INQUIRY / PRICING / REGISTRATION

<https://api.whatsapp.com/send?phone=918217293118>





Metric™

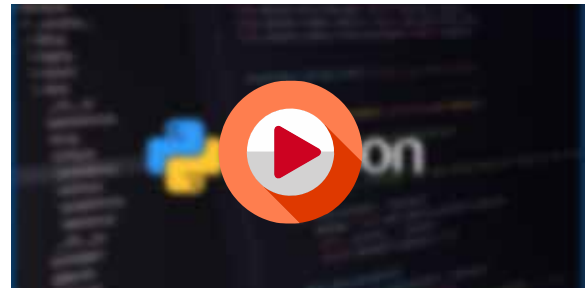
Your
Perfect
Learning
Partner

DEMO CLASS



WATCH DEMO CLASS VIDEO ON
OUR OFFICIAL WEBSITE

<https://www.netmetric-solutions.com/python-for-network#course-content>



COURSE SCHEDULE

TIMINGS:

- ✓ Weekend Batch (Sat & Sunday, 3 hour each, 4 weeks Duration)
- ✓ Timings: 10:00 AM TO 01:00 PM IST
- ✓ 30+ hrs of Course Content
- ✓ Access to Full Recorded Videos
- ✓ Class conducted over Zoom conference
- ✓ Workbook, PDF, 24x7 Lab Setup Support included
- ✓ Instructor-led Online Training





Metric™

Your
Perfect
Learning
Partner

PYTHON – Beginner to Maestro (Learn the tool, Build a Fort):



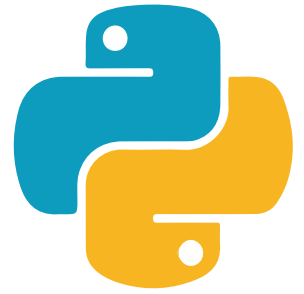
- Syntax and Integrated Development Environment
- Operators and Operands
- Control structures, Loops and Loop Controls
- Functions and Modules
- In-built Data Structures
- Functional programming
- Decorator and Generator
- Object Oriented Programming(OOP) concept from a Developer, made VERY EASY
- Regular Expressions
- File and Exceptional Handling
- Logic building sessions and Doubt sessions
- Important interview topics covered and more questions to practice than you can handle
- Advanced :: Multithreading/Logging/Garbage collection

**“Don’t worry if it doesn’t work right.
If everything did, you’d be out of a job.”**



Libraries for CLI automation (Automating what you already know):

- Scripting practice using the open libraries available
- Paramiko
- Netmiko
- Napalm
- Telnetlib
- Creating your own Module !!!



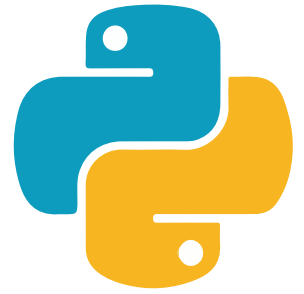
Data serialization and libs (Your bestfriends for automation, after your Brain):

- json
- yaml
- xml
- Related libraries and how to use them

‘In the Coding World, Googling is an ART !!!’



REST-API and Tools (You are a DEVELOPER now):



- HTTP and its terminologies
- HTTP CRUD and ERROR codes (google CRUD now !!)
- API
- REST
- Curl
- Postman
- Requests library
- All the above topics are CISCO preferred
- We can build a joke generating machine and play a card game !!!

“A good programmer is someone who always looks both ways before crossing a one-way street”



ANSIBLE(Trendy Topic, Easy Tool):

- Basics of Linux environment
- Ansible components
- Hosts/inventory and .cfg
- Ad-hoc and modules
- Jinja templating
- Automate everything you can think of, using PLAYBOOKS !!



“Software Developer” – An organism that turns caffeine into software

DEVNET World

(Whole new way of talking with Routers and Switches):

- A whole course in itself, summarized to ease your way into it
- Fork an official CISCO code repository(GIT Basics included)
- NETCONF
- RESTCONF
- YANG
- Using the tools above to “CRUD” configurations on the devices
- Software Development and Design
- All the things CISCO wants you to learn

“Talk is cheap. Show me the code.” – Linus Torvalds



Cisco Devices Programmability Options (Every Box is special):



- **IOS XE**
 - CRUD in boxes using NETCONF/RESTCONF (did you google CRUD yet?)

- **NX-OS**
 - NX-API
 - Overview of programmable features
 - Developer Sandbox
 - NX-OS Object
 - Data Management Engine(DME)
 - Management Information Tree(MIT)
 - Visore

- **ACI**
 - 'HEROES' Tenant
 - ACI GUI
 - EPG
 - Object Model
 - Cobra, Arya and Toolkit
 - CRUD a Tenant
 - SuperHeroes, Villains and a Mission

Cisco Devices Programmability Options (Every Box is special):



- **IOS XE**
 - CRUD in boxes using NETCONF/RESTCONF (did you google CRUD yet?)
- **UCS**
 - Unified API
 - UCS Manager python SDK
 - CRUD UCS Manager objects
 - UCS Director
 - IMC Redfish
 - IMC Powertool

NETMETRIC INFOSOLUTIONS Pvt Ltd

Contact Us : +91-821-729-3118

Email Us : training@netmetric-solutions.com

Website : www.netmetric-solutions.com

1192, 5th Main Rd, Rajiv Gandhi Nagar, HSR Layout,
Bengaluru, Karnataka 560102

