

Programmability Black Belt Apprentice (Level1)

1. Go through the VoDs/e-Learnings as listed in the following 2 links :
<https://salesconnect.cisco.com/open.html?b=P03196826> and <https://developer.cisco.com/video/net-prog-basics/00-intro>
2. Go through this - https://developer.cisco.com/video/net-prog-basics/01-programming_fundamentals and optionally for those who are new to python, we recommend going through the content listed here :
<https://www.codeschool.com/learn/python> or
https://www.udemy.com/automate/?couponCode=FOR_LIKE_10_BUCKS or
<https://www.coursera.org/learn/python> or <https://www.codecademy.com/learn/python> or
<https://www.pluralsight.com/patterns/python> or <http://greenteapress.com/thinkpython/thinkpython.pdf>
3. Complete the DevNet learning lab outlined in **slides #2**
4. Complete the 3 assignments as mentioned in :
https://github.com/Devanampriya/DevNet_vCC_Team0/blob/master/Camp1_Day2_assign1 ,
https://github.com/Devanampriya/DevNet_vCC_Team0/blob/master/Camp1_Day2_assign2 ,
https://github.com/Devanampriya/DevNet_vCC_Team0/blob/master/Camp1_Day2_assign3
5. Go through the Github videos as shown in https://www.youtube.com/watch?v=SWYqp7iY_Tc or <https://www.youtube.com/playlist?list=PLg7s6cbtAD17Gw5u8644bgKhgRLiJXdX4>. Then do below :
 - a) upload your python answers to step #3 as a new github repository
 - b) email the above github repository link to ajp-programmability@cisco.com, inorder to be evaluated towards the completion of the Programmability Black Belt Apprentice (Level1)



1. Intro to Coding Fundamentals

How to take the learning lab:

- ✓ Login to the DevNet page listed here
- ✓ Start the modules and complete them in order
- ✓ Once you complete all the modules, move on to the next learning lab (slide #3)
- ✓ For any queries reach out to the Cisco Team (api-programmability@cisco.com)

<https://learninglabs.cisco.com/modules/fundamentals>

The screenshot shows the 'Intro to Coding Fundamentals' module on the Cisco Learning Labs platform. The top navigation bar includes links for Home, Learning Labs, My Profile, and Logout. The main content area features a large circular icon with a stylized robot head and the text 'Intro to Coding Fundamentals'. Below it, a brief description reads: 'Get started with coding basics by learning the fundamentals of coding with Python and parsing JSON.' To the right, there are icons for 4 Learning Labs and 3 Hours. Social sharing buttons for Facebook, Twitter, and LinkedIn are also present. A large button at the bottom right says 'Start Lab'.

Choose a learning lab to start learning

Introduction to Git 0 10 min

Learn the basics of git and how to clone online repository to the local machine.

Last Completed on 02/18/2017 @ 04:58 PM

Python Primer Level 1 0 45 min

Learn the basics of Python syntax, operators and conditional statements



What is DevNet all about?

We're all about providing developers (*you*) with the tools, the resources, and the code you need to build innovative, network-enabled solutions.

How do we do that?

Access to cool stuff:

- ✓ Download APIs and SDKs
- ✓ Access fully-tooled sandboxes
- ✓ Set your profile to customize your notifications
- ✓ Use the Learning Labs
- ✓ Get answers on the community forums
- ✓ Receive loads of support

<https://developer.cisco.com>

The screenshot shows the Cisco DevNet homepage. At the top, there's a navigation bar with the Cisco logo, DevNet, Discover, Technologies, Community, and Support links, along with a search bar and a Log In button. The main banner features a sunset over the Golden Gate Bridge and the text "Reserve your fog. Gain experience using the Cisco Fog Director and deploy fog applications on IOx-enabled devices in the DevNet Sandbox." Below the banner is a "Dive In" button and a series of icons representing different technology domains: IoT, Cloud, Networking, Data Center, Security, Analytics & Automation, Open Source, Collaboration, and DevOps. Further down, there's a "Learn and code" section with the subtext "It's easy to start learning the latest Cisco APIs & technologies with guided Learning Tracks, and it's free!" and two examples: "NETWORKING" (Network Programmability for Network Engineers) and "APIC-EM Programmability". Each example has a brief description and a "Chat with Us!" button.



Setup your DevNet Profile

3 simple steps to becoming a DevNet member

Becoming a member of the DevNet Community is free, easy, and gives you access to useful resources and tools.

Step 1

Create a Cisco ID >
(if you don't already have one)

Step 2

Log in to DevNet and create
your account >

Step 3

Complete your profile (at any
time) and earn points towards
Cisco DevNet badges.

Get Started @

<https://developer.cisco.com/site/devnet/overview>



**Edit your profile**

Build custom contact center desktops

Our new learning lab shows you how to use the Finesse REST API to build customizable, user-centric interfaces for a customer service organization.

[Get Started](#)

IoT



Cloud



Networking



Data Center



Security

Analytics &
Automation

Open Source



Collaboration



DevOps

Learn and code

It's easy to start learning the latest Cisco APIs & technologies with guided Learning Tracks, and it's free!

Update Profile

* denotes required fields

Work Areas



Who are you? *

Cisco Engineer

Select One

Open Source Developer
Dev Ops Developer

Don't forget to tell us who you are...

Finding your area of interest...

Explore Cisco's DNA

The screenshot shows the Cisco DevNet homepage. At the top, there is a navigation bar with the Cisco logo, the text "Start Here: 1", "Discover", "Technologies" (which is highlighted with a green box), "Community", and "Support". To the right of the navigation bar is a search bar with the placeholder "Search Devnet" and a magnifying glass icon. On the far right of the top bar is a "Log in" link.

The main content area has a sidebar on the left with categories: IoT, Cloud, and Networking (which is highlighted with a green box and labeled with a green number "2"). Below these are links for Data Center, Collaboration, Analytics & Automation Software, Security, Open Source, and DevOps.

The central part of the page features a large "Networking" section with a blue icon. Below it is a button labeled "Go to the Dev Center" (which is highlighted with a green box and labeled with a green number "3"). The Networking section contains several sub-links: Cloud Service Management (CMX Mobility Services, Meraki), Automation and Analytics (Apple iOS, ACI (APIC Data Center), APIC Enterprise Module (APIC-EM), Network Services Orchestrator (NSO), WAN Automation Engine (WAE), Prime Infrastructure, PNDA), Open Source (Open Daylight, OPNFV), Hardware Specifications (USGMII and USXGMII), Physical and Virtual Network Elements (Cisco Open Device Programmability, Open Plug-n-Play, NX-OS, NY-ADI), and Community of Interest (DNA, Meraki).

Click to Explore

What Can You Do?



Analyze customer behavior in a retail scenario to provide better service with Meraki CMX Location Analytics.

[Check it out >](#)



Capture customer contact information when customers login to WiFi with Captive Portal API.

[Check it out >](#)



Analyze customer presence to enhance the customer's length of time in a store with CMX Presence Analytics.

[Check it out >](#)



Automation and Analytics

Automation and analytics to make networks and network services easy to deploy, manage and maintain.

[Learn more](#)

Explore other Areas of Interest

The image shows the Cisco DevNet homepage. At the top, there is a navigation bar with the Cisco DevNet logo, menu items like Discover, Technologies, Community, and Support, and a search bar. Below the banner, there is a main content area featuring a video thumbnail of a contact center lab with agents at their desks. A green button labeled "Get Started" is overlaid on the video. Below the video, there is a row of nine colored boxes, each representing a different technology category: IoT (green), Cloud (light blue), Networking (blue), Data Center (purple), Security (red), Analytics & Automation (orange), Open Source (light green), Collaboration (teal), and DevOps (pink). The "Analytics & Automation" box is highlighted with a red border.

Log in

cisco DevNet

Discover Technologies Community Support

Search Devnet

Build custom contact center desktops

Our new learning lab shows you how to use the Finesse REST API to build customizable, user-centric interfaces for a customer service organization.

Get Started

IoT

Cloud

Networking

Data Center

Security

Analytics & Automation

Open Source

Collaboration

DevOps

Diving Deeper...



IoT

Cloud

Networking

Data Center

Collaboration

Analytics & Automation Software

Security

Open Source

DevOps



Networking

[Go to the Dev Center](#)**Cloud Service Management**[CMX Mobility Services](#)[Meraki](#)**Automation and Analytics**[Apple iOS](#)[ACI \(APIC Data Center\)](#)[APIC Enterprise Module \(APIC-EM\)](#)[Network Services Orchestrator \(NSO\)](#)[WAN Automation Engine \(WAE\)](#)[Prime Infrastructure](#)[PNDA](#)**Open Source**[Open Daylight](#)[OPNFV](#)**Hardware Specifications**[USGMII and USXGMII](#)**Physical and Virtual Network Elements**[Cisco Open Device Programmability](#)[Open Plug-n-Play](#)[NX-OS](#)[NX-API](#)[IOS-XR](#)[UCS E-Series](#)[3rd Party Network Element](#)[Programmability \(ConfD\)](#)**Tools**[Virtual Internet Routing Lab \(VIRL\)](#)[NeXt UI Toolkit](#)[YANG Development Kit \(YDK\)](#)[TRex](#)**Community of Interest**[DNA](#)[Meraki](#)

It's easy to start learning the latest Cisco APIs & technologies with guided Learning Tracks, and it's free!

Chat with Us!



APIC Enterprise Module (APIC-EM)

APIC-EM is an SDN controller for policy based automation of the network infrastructure, simplifying deployment and network operations. The built in applications IWAN, Path Trace and Plug and Play support enterprise routers, switches and Access Points. All capabilities are exposed via a REST API.

- ✓ Guided Learning
- ✓ Read the Docs
- ✓ Join the Community & Conversation
- ✓ Get Support

[Get Started](#)

Learn how to code with APIC-EM API

FEATURED LEARNING TRACK

[APIC-EM Programmability](#)[Explore More Learning Labs](#)[Coding 101 - REST Basics](#)

Beginner · 20 mins

Chat with Us!

**Learn****Learning Tracks**

Learn the latest Cisco API & technologies with guided Learning Tracks

[Get Started](#)**Code****Sandbox Remote Labs**

Free 24x7 hosted labs for integrating and working with Cisco Technologies

Sample Code on Github

Find code on Github to help you get started with Cisco APIs

Inspire**DevNet Creations**

See the latest creations from the community and contribute your own

Connect**Browse Communities****Events****Innovation Challenge****Cisco Innovation Centers****Latest Blogs****DevNetZone at Cisco Live**

...there is more to **Discover!**

To Do List - Check out:

- DevNet Events
- DevNet Learning Tracks
- DevNet Developer Sandbox
- DevNet Creations