Making WebEx Teams Interactive with ChatOps & ChatBots

Cisco DevNet Webinar Series

Speaker: David Staudt| DevNet Developer Evangelist, Principal Engineer

Hostess: Kara Sullivan | Cisco Networking Academy

21 June 2018

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5. APIs with Cisco Spark
6. Network Programmability & APIC-EM
7. Network Programmability with YANG/NETCONF/RESTCONF
8. Automating Cisco Spark with Cloud Integration
9. Using Python to Automate Cisco Spark
10. Making Cisco Spark Interactive with ChatOps & ChatBots – Today!

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Joining You Today:

David Staudt

Developer Evangelist, Principal Engineer

DevNet, Cisco

Cisco DevNet + NetAcad Webinar Series

Cisco DevNet + NetAcad Webinar Series #4

Making Webex Teams Interactive with ChatOps and ChatBots

David Staudt

DevNet Developer Evangelist / Principal Engineer

Agenda

- Why Chat? Why Bots? Why Chat-Bots..?
- Notification Bots: Putting the ‘Chat-Ops’ in ‘Dev-Ops’
- Controller Bots: The Next-Level CLI
- Bot Assistants: NLP, Sentiment, AI – Literally Star Trek
- Webex Teams Bots: Architectures and Tools

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Cisco Spark is becoming Cisco Webex Teams.

Webex Teams is an app for continuous teamwork with video meetings, messaging, file sharing and white boarding.

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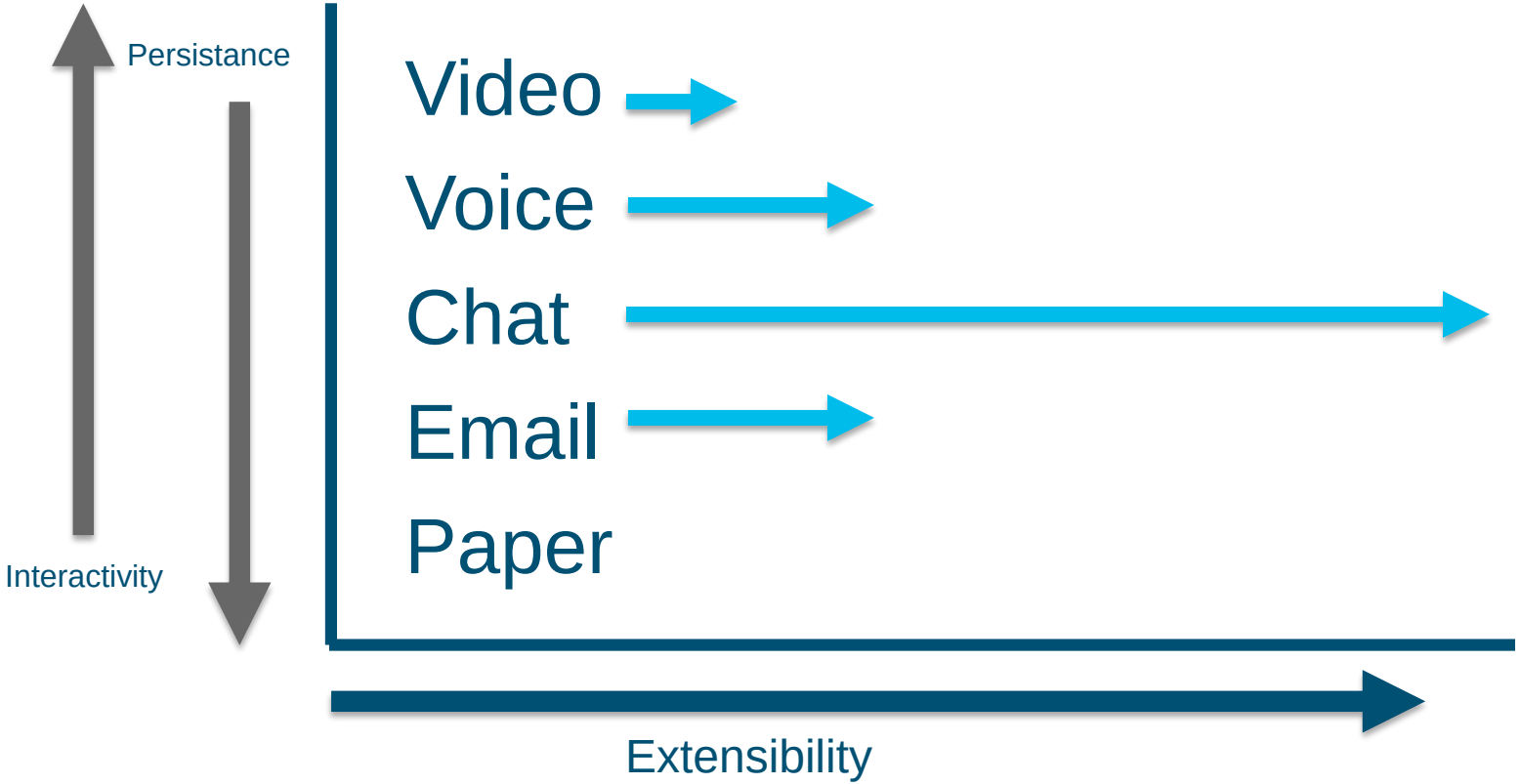
Why Chat?



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Why Chat Bots?

- Extend chat with application interaction
- Automation integrated where users work / live / play
- Information, control and assistance when / where needed
- Rapidly expanding automation paradigm across markets
- Easy-to-use open / free tools – quick wins

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Notification Bots

- One-way communication: systems -> chat rooms
- Simple architecture: anything that can HTTP POST
- DevOps: GitHub, Jenkins, Ant, Maven
- SysAdmin: alerts, status, tickets
- Fabian: announcement bot (fabian@sparkbot.io)
- ChatOps Sample: chatops.py

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Controller Bots

- Two-Way Communication: Systems <-> Chat Rooms
- Requires an Internet Accessible Application
- DevOps: Request Reports, View Issue Details
- SysAdmin: Execute Scripts, Dig Into Alert Data
- MemeBot: (memebot@sparkbot.io)
- ToGerman: translator (togerman@sparkbot.io)

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Assistant Bots

- Two-way communication: assist bot <-> chat room
- Augment with additional APIs, external services
- Requires an internet accessible application
- Natural language processing: e.g. Google NLP
- Sentiment analysis
- Artificial intelligence: IBM Watson, API.ai

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Top Cisco Spark API Horizontal Use Cases

Incident Management

HR Onboarding

Task Management

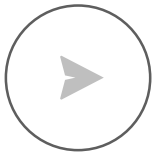
Sales Pipeline

Finance Operations

Polling

Scheduling

Content Management



Network Operations

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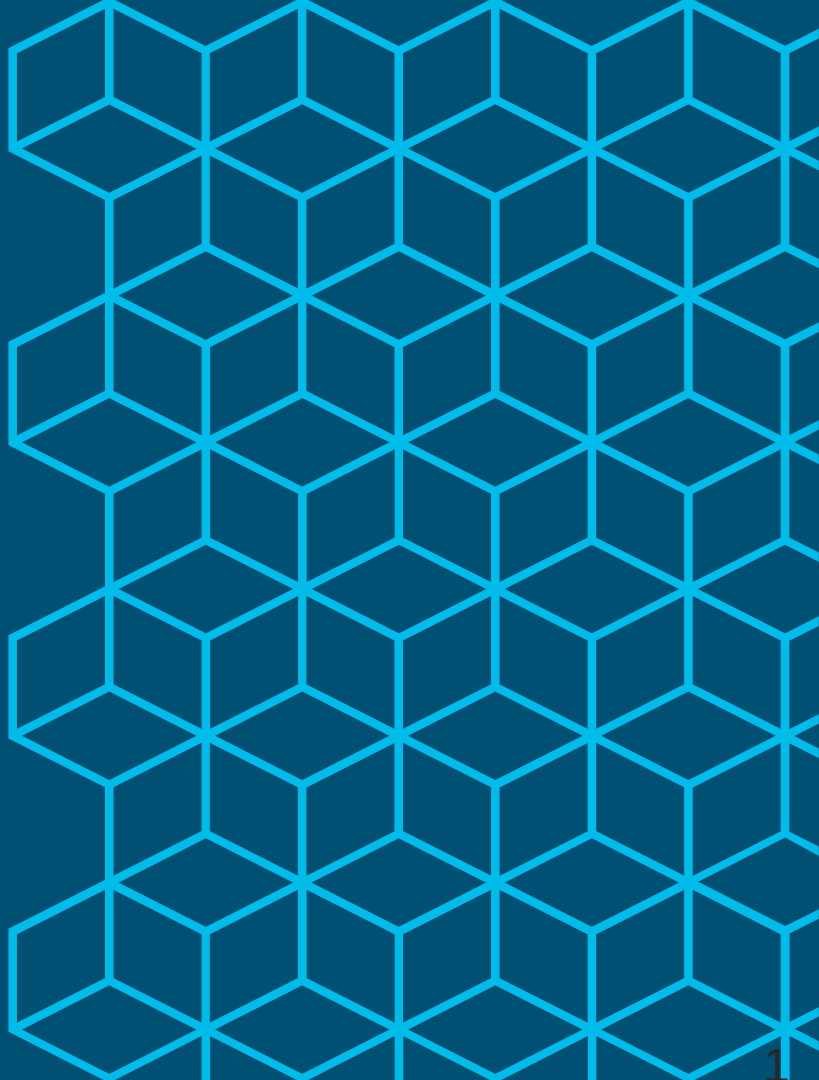
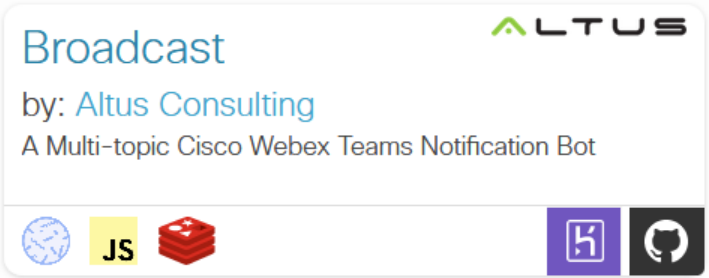
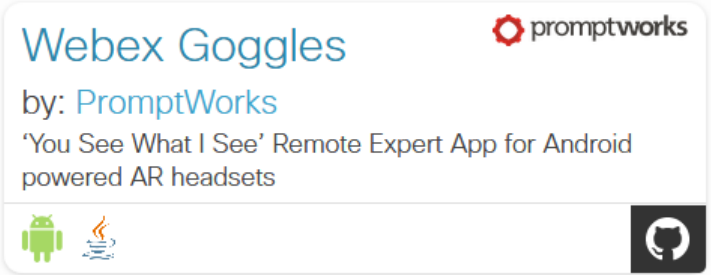
Webex Teams Bots – Architecture and Tools



Open Source Starter Kits

https://ciscowebexteamsambassadors.github.io/StarterKits/





and many more...

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Build-a-Bot Basic Instructions

- Create a bot account
- Write bot code to listen for incoming webhooks
- Make your bot server accessible to the internet
- Define a webhook / filter – event notifications

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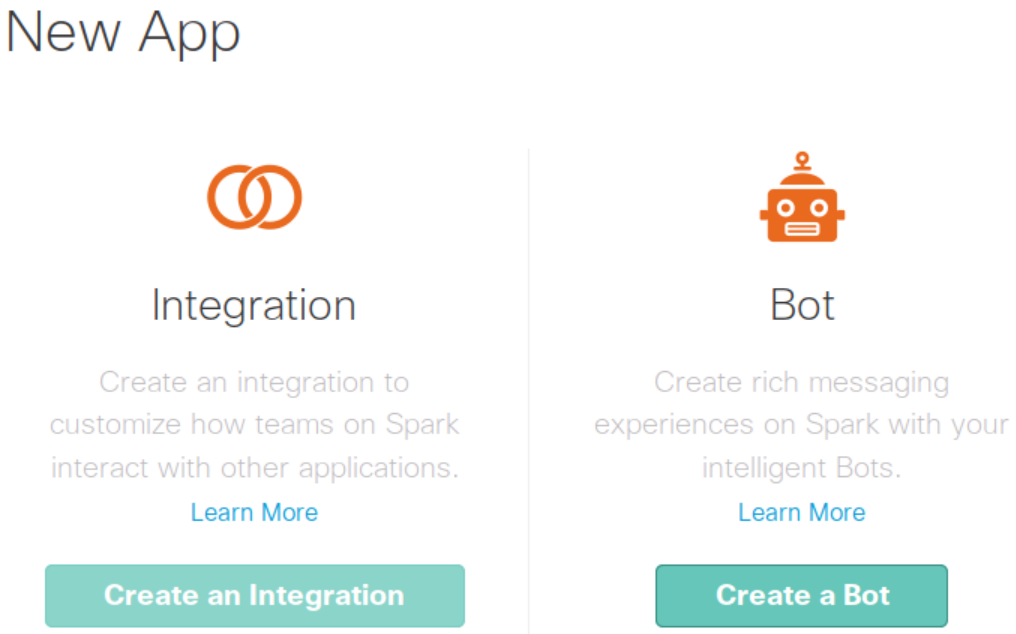
Create a Bot Account



https://developer.webex.com/apps.html

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Write Bot Code to Listen for Incoming Webhooks

- Integration platforms (iPaaS): Built.io, Stamplay, Zapier, node-red
- Bot hosting service: Gupshup.io, Zenbot.org
- Bot framework: Botkit, flint
- Sample / example code: https://https://github.com/CiscoDevNet/awesome-webex
- Build Your Own: Node.js+Express, Python+Flask – or build from scratch

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Make your Bot Server Accessible to the Internet

- Integration platforms (iPaaS): Built.io, Stamplay, Zapier, IFTTT
- Bot hosting service: Gupshup.io, Zenbot.org
- Cloud hosting service: AWS, Azure, App Engine, Glitch
- Host it yourself: Domain, DNS, CA Cert, Firewall, NAT Traverse, H/A, etc.

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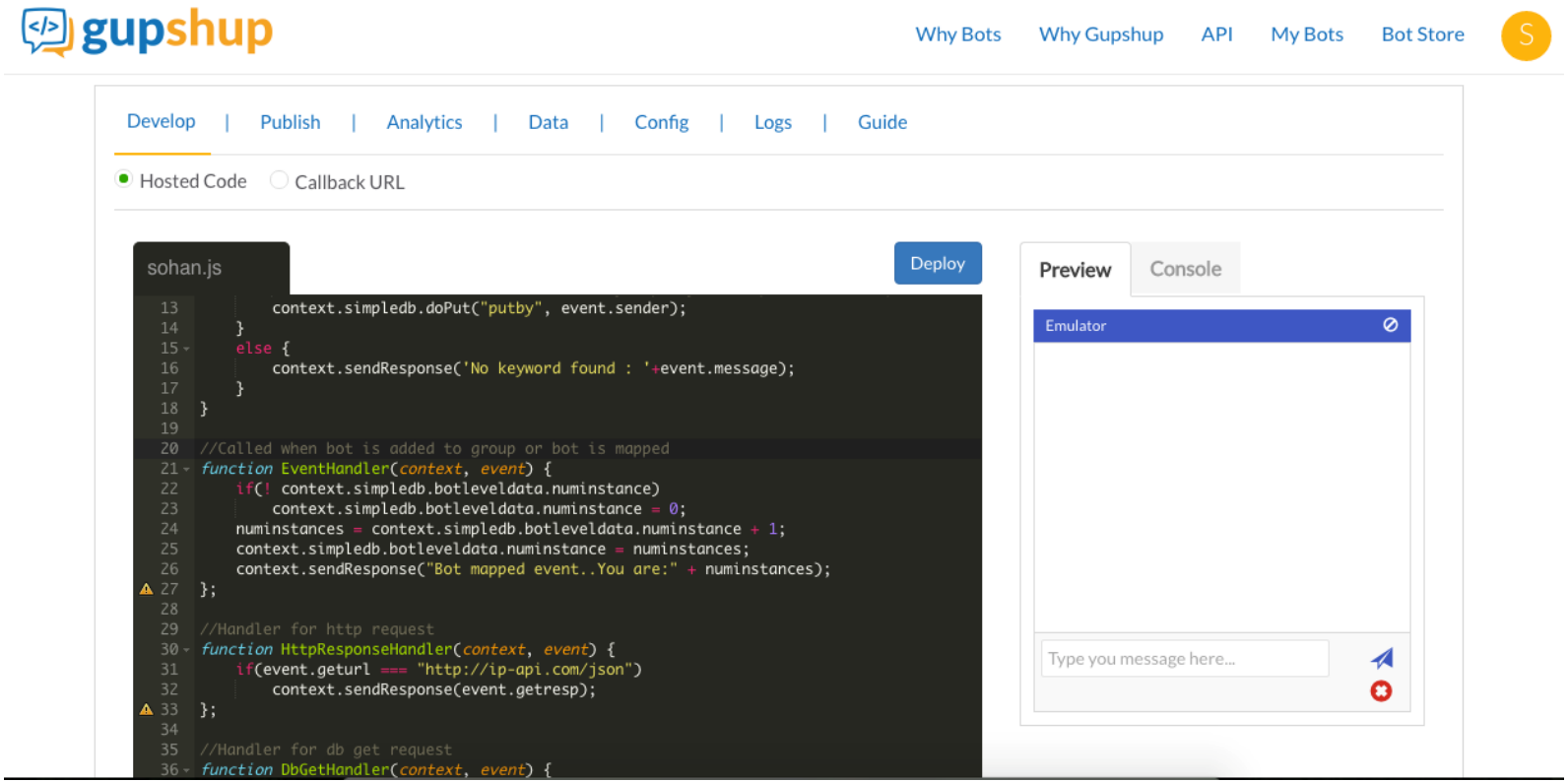
Bot Hosting Services – Gupshup.io & Zenbot.org



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Define a Webhook – Event Notifications

Method		Description
GET	https://api.ciscospark.com/v1/webhooks	List Webhooks
POST	https://api.ciscospark.com/v1/webhooks	Create a Webhook
GET	https://api.ciscospark.com/v1/webhooks/{webhookId}	Get Webhook Details
PUT	https://api.ciscospark.com/v1/webhooks/{webhookId}	Update a Webhook
DELETE	https://api.ciscospark.com/v1/webhooks/{webhookId}	Delete a Webhook

Webhooks Explained:
https://developer.webex.com/webhooks-explained.html

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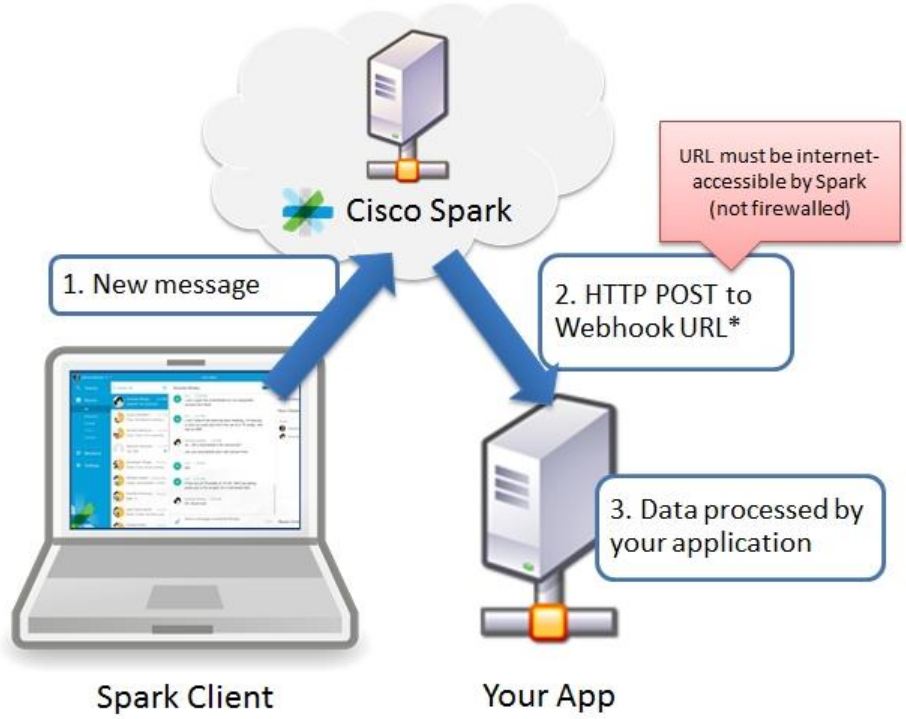
Spark Bot Assembly



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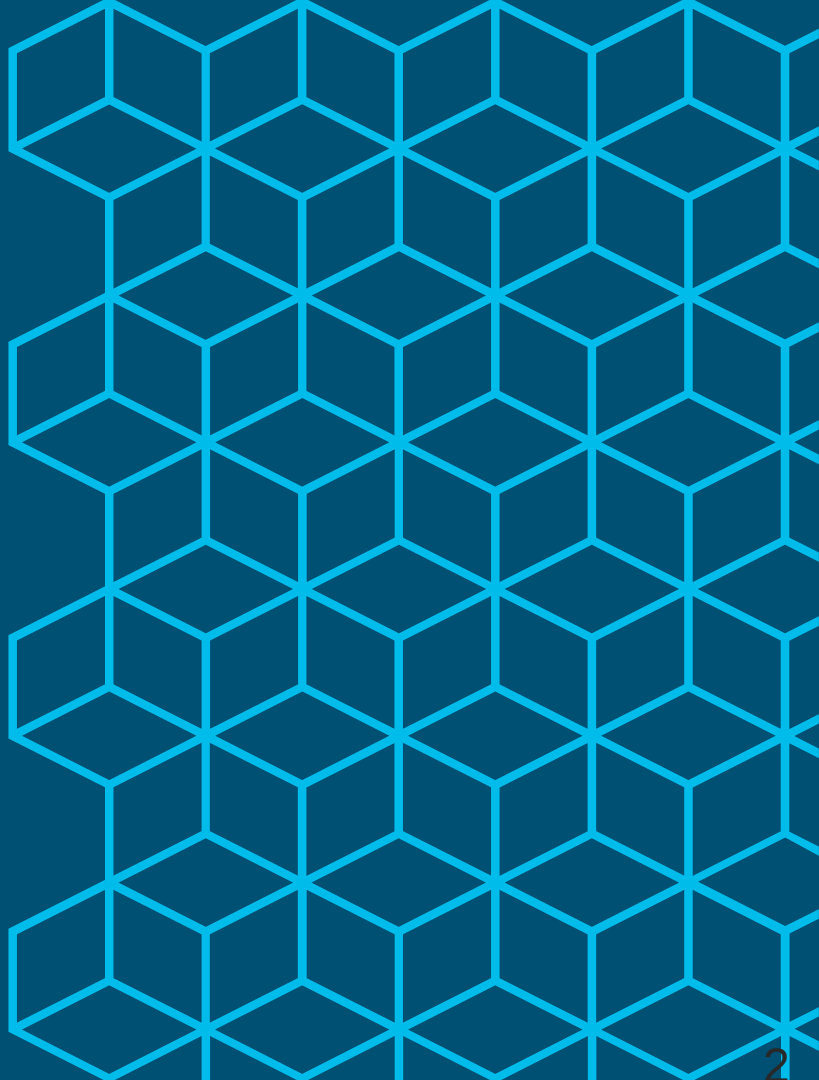
Developer Resources



Webex Teams Developer Resources

- Webex Teams API / SDK Docs:
- https://developer.webex.com
- Cisco DevNet Webex Teams Resources:
- https://developer.cisco.com/site/spark/
- https://https://learninglabs.cisco.com/labs/tags/Spark,Webex+Teams/page/1
- GitHub Resources:
- https://https://github.com/CiscoDevNet/awesome-webex
- Cisco Spark Developer Support:
- https://https://developer.webex.com/support.html

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Thank you

Q&A

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- Opportunity to earn a certificate will stay open for one month – until 23 July
- Request certificate @ http://www.cvent.com/d/75qs9b

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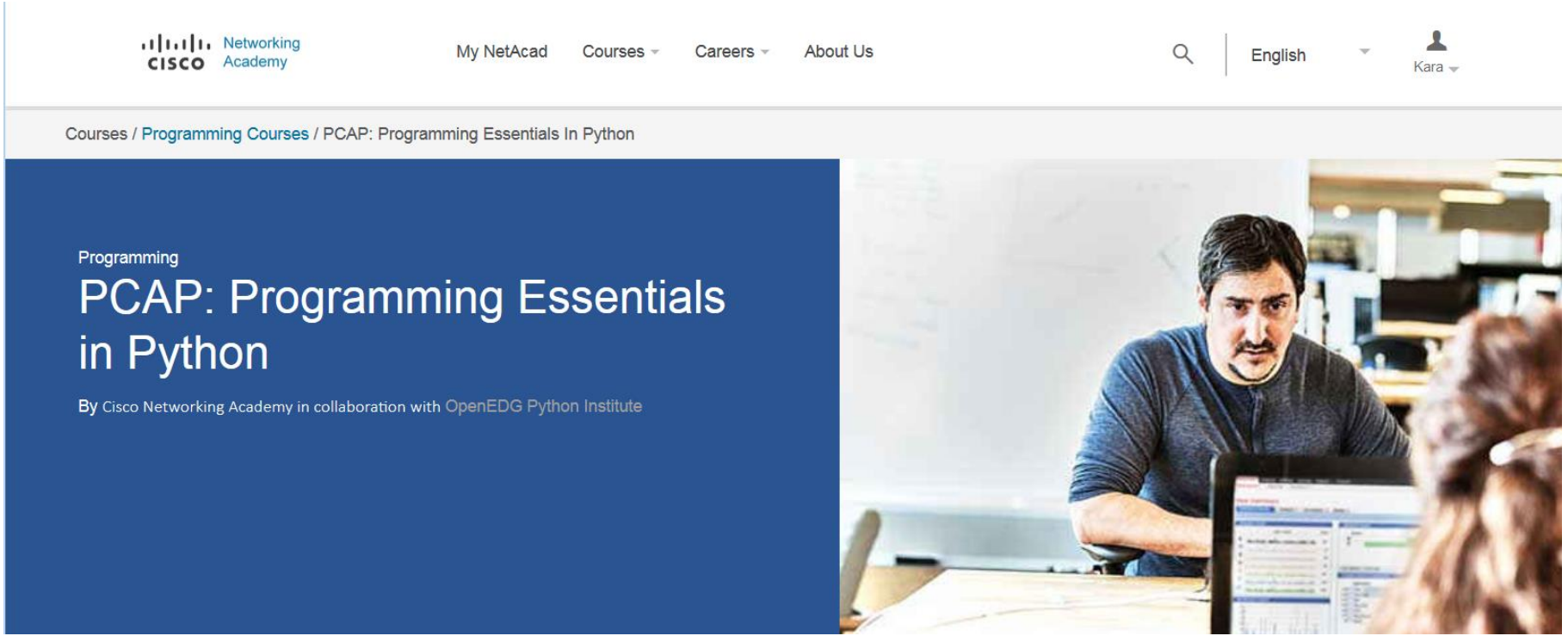
Want to Learn More About Python?



Learn More at: http://bit.ly/pythonessentials

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