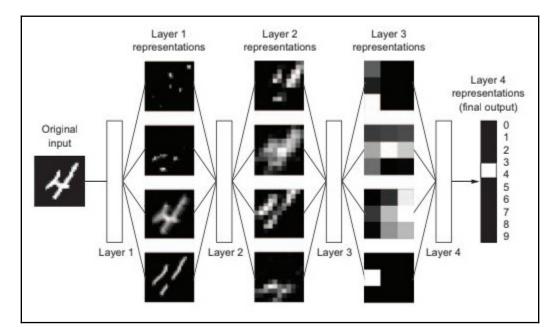
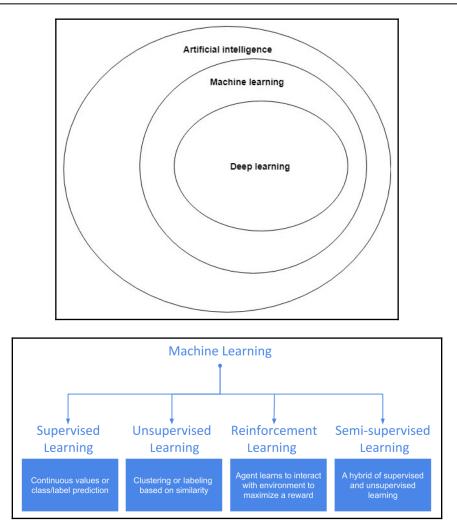
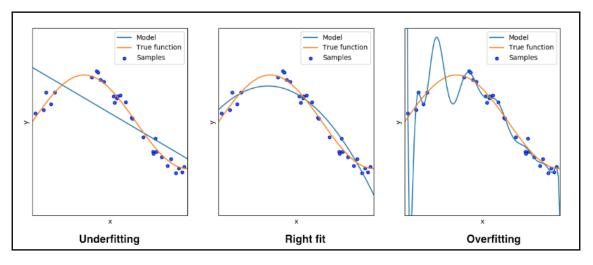
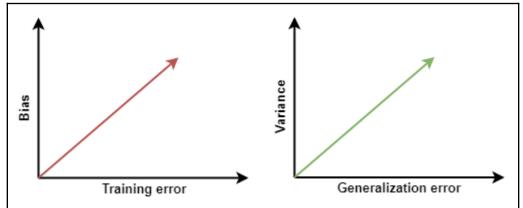
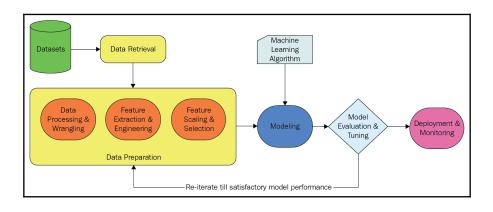
Chapter 1: Demystifying Artificial Intelligence and Fundamentals of Machine Learning



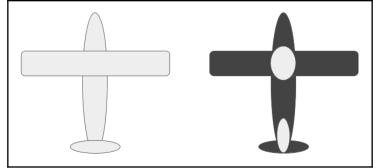


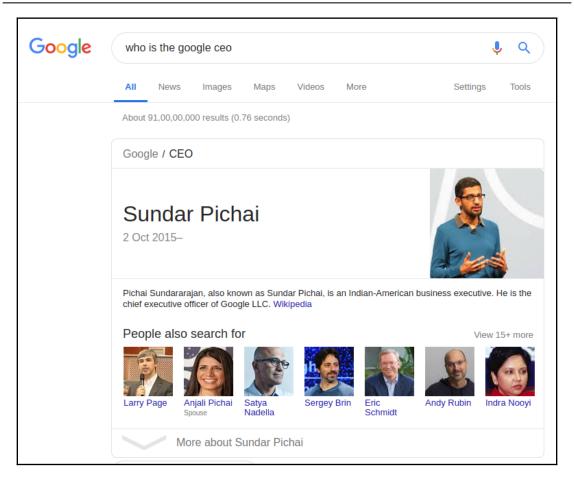


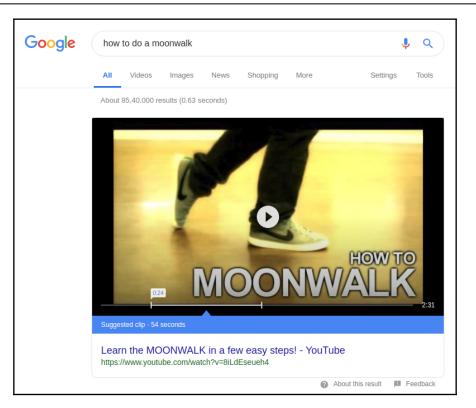




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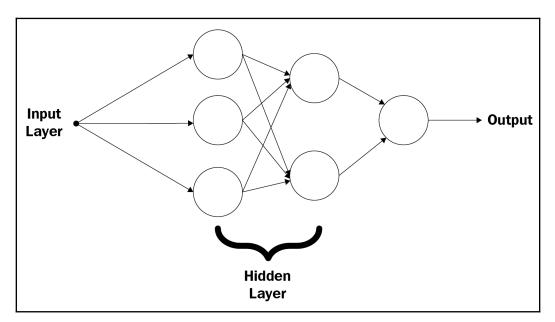


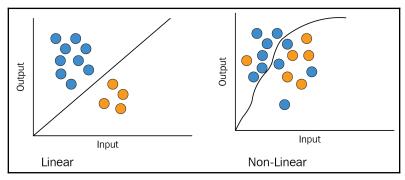


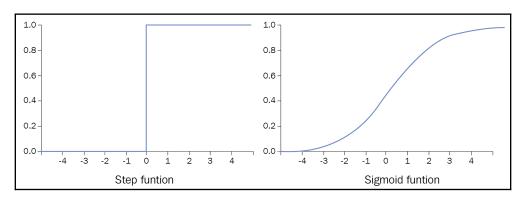




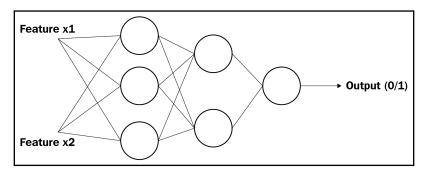
Chapter 2: Getting Started with Deep Learning Using Python

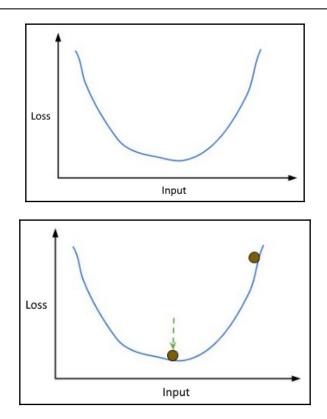






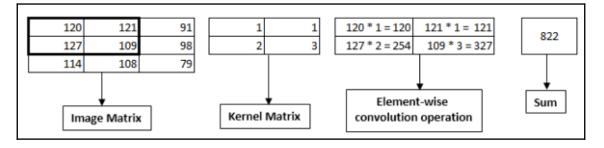
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1.0	2.0	0
2.0	4.0	1
3.0	2.0	0
4.0	8.0	0
5.0	4.0	1
6.0	3.0	1
7.0	5.0	0
8.0	4.5	1
9.0	5.5	0
10.0	2.4	0





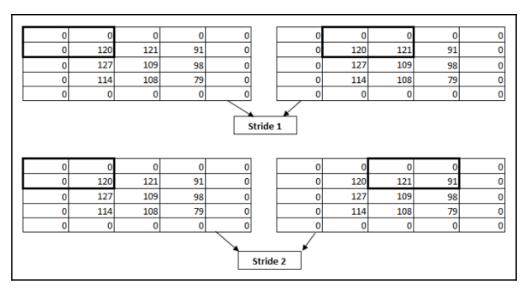


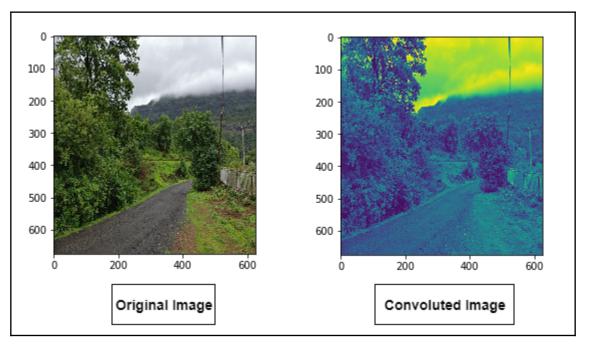
120	121	91
127	109	98
114	108	79

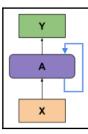


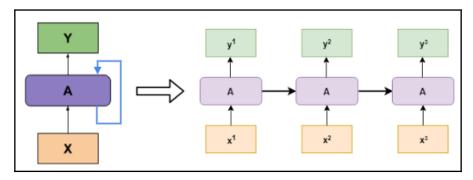
Convolution 2 120 121 91 127 109 98 114 108 79 Convolution 3 127 109 98 114 108 79 Convolution 3 127 109 98 114 108 79 Convolution 4 127 109 98 120 121 91 127 11 $1127 + 1 = 127$ $109 + 1 = 10911 + 2 = 228$ $108 + 3 = 324109 + 1 = 109$ $98 + 1 = 98109 + 1 = 109$ $98 + 1 = 98108 + 2 = 216$ $79 + 3 = 237108 + 2 = 216$ $79 + 3 = 237788$	Convolution 1	120 127 114	121 109 108	91 98 79	1 2	1 = 120 2 = 254	121 * 1 = 121 109 * 3 = 327	822	
Convolution 3 127 109 98 2 3 114 * 2 = 228 108 * 3 = 324 788 114 108 79 1 1 109 * 1 = 109 98 * 1 = 98 822 724 Convolution 4 127 109 98 2 3 108 * 2 = 216 79 * 3 = 237 788 660 114 108 79 1 1 108 * 2 = 216 79 * 3 = 237 788 660	Convolution 2	127	109	98				822	724
Convolution 4 127 109 98 2 3 108 * 2 = 216 79 * 3 = 237 788 660 114 108 79	Convolution 3	127	109	98	_	 			724
	Convolution 4	127	109	98	2				660

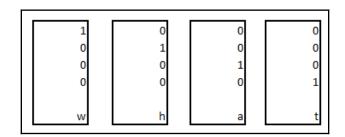
0	0	0	0	0
0	120	121	91	0
0	127	109	98	0
0	114	108	79	0
0	0	0	0	0

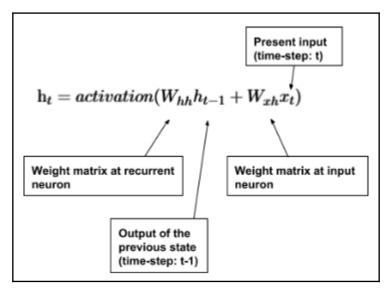




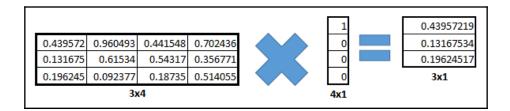


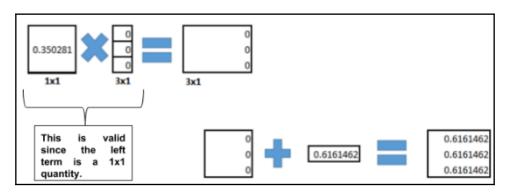


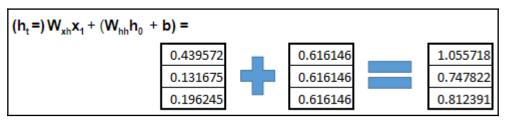


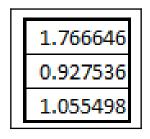


0.439572	0.960493	0.441548	0.702436
0.131675	0.61534	0.54317	0.356771
0.196245	0.092377	0.18735	0.514055









0.50336705	0.193937	0.8673876
0.31384829	0.862868	0.4842808
0.80898295	0.314543	0.7916341
0.76527556	0.775302	0.2131228

(Y _t =) W _{hy}	_y h _t =					
	0.50336705	0.193937	0.8673876		1.055718	 1.9846803
	0.31384829	0.862868	0.4842808		0.747822	1.8659569
	0.80898295	0.314543	0.7916341		0.812391	2.5565038
	0.76527556	0.775302	0.2131228	• •		2.2960419

Г	
	0.199012
	0.176733
	0.352548
	0.271707

💭 jupyter	Logout
Files Running Clusters	
Select items to perform actions on them.	Upload New -
0 -	Name Last Modified
binary_opt_multiprocessing	a month ago
Sonar	a month ago
C wine	a month ago
example.ipynb	a month ago
binary_optimization.py	a month ago
README.md	a month ago

💭 Jupyter	example (unsaved changes)		Logout
File Edit	View Insert Cell Kernel Help	Not Trusted	Python 3 O
B + × 4] 🚯 🛧 🔸 HRun 🔳 C Raw NBConvert T		
	Sample Notebook - This is a MarkDown Cell		
	Hello World < This is a raw cell		
In [1]:	<pre>import binary_optimization as opt import numpy as np</pre>		
	from sklearn import svm from sklearn import model_selection as ms from tqdm import tqdm		
In [2]:	<pre>import LoadFile as lf</pre>		
In [3]:	<pre>tr_x, te_x, tr_y, te_y = lf.load_ADA()</pre>		
In [4]:	<pre>tr_x.shape, tr_x.shape,te_x.shape,te_y.shape</pre>		
Out[4]:	((4147, 48), (4147, 48), (415, 48), (415,))		
	dataset(wine)		
In [5]:	<pre>with open("wine/0.6/wine_train_data_testrate0.6.txt") as f: tr_d=np.array([[float(d) for d in data.split(',')] for data in f.read(with open("wine/0.6/wine_test_data_testrate0.6.txt") as f: te_d=np.array([[float(d) for d in data.split(',')] for data in f.read(</pre>		
	<pre>with open("wine/0.6/wine_train_label_testrate0.6.txt") as f: tr_l=np.array([int(data) for data in f.read().splitlines()])</pre>		
	<pre>with open("wine/0.6/wine_test_label_testrate0.6.txt") as f: te_l=np.array([int(data) for data in f.read().splitlines()])</pre>		

•	All	services
	0	Compute
		EC2
		Lightsail 🔼
		ECR
		ECS

AMI is a template that con	tains the software confi	achine Image (AMI) guration (operating system, application server, and applications) required to launch your instance. You can select an AM a select one of your own AMIs.	Cancel and Exit
Quick Start		< < 1 to	31 of 31 AMIs > >
My AMIs	Û	Amazon Linux AMI 2016.09.0 (HVM), SSD Volume Type - ami-f9619996	Select
AWS Marketplace	Amazon Linux Free tier eligible	The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.	64-bit
Community AMIs		Root device type: ebs Virtualization type: hvm	
Free tier only (i)	4	Red Hat Enterprise Linux 7.3 (HVM), SSD Volume Type - ami-e4c63e8b	Select
	Red Hat Free tier eligible	Red Hat Enterprise Linux version 7.3 (HVM), EBS General Purpose (SSD) Volume Type Root device type: ebs Virtualization type: hvm	64-bit
	3	SUSE Linux Enterprise Server 12 SP2 (HVM), SSD Volume Type - ami-c425e4ab	Select
	SUSE Linux Free tier eligible	SUSE Linux Enterprise Server 12 Service Pack 2 (HVM), EBS General Purpose (SSD) Volume Type. Public Cloud, Advanced Systems Management, Web and Scripting, and Legacy modules enabled. Root device type: ebs Virtualization type: hvm	64-bit
	0	Ubuntu Server 16.04 LTS (HVM), SSD Volume Type - ami-b03ffedf	Select
	Free tier eligible	Ubuntu Server 16.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).	64-bit
		Root device type: ebs Virtualization type: hvm	
	<i>#</i>	Microsoft Windows Server 2016 Base - ami-0a915665	Select
	Windows Free tier eligible	Microsoft Windows 2016 Datacenter edition. [English]	64-bit

1. Choose AM	2. Choose Instance Type	3. Configure Instar	nce 4. Add Storage	5. Add Tags	6. Configure Security Group 7	. Review	
Step 2:	Choose an Insta	nce Type					
	Compute optimized	c3.large	2	3.75	2 x 16 (SSD)	-	Moderate
	Compute optimized	c3.xlarge	4	7.5	2 x 40 (SSD)	Yes	Moderate
	Compute optimized	c3.2xlarge	8	15	2 x 80 (SSD)	Yes	High
	Compute optimized	c3.4xlarge	16	30	2 x 160 (SSD)	Yes	High
	Compute optimized	c3.8xlarge	32	60	2 x 320 (SSD)	-	10 Gigabit
	GPU instances	g2.2xlarge	8	15	1 x 60 (SSD)	Yes	High
	GPU instances	g2.8xlarge	32	60	2 x 120 (SSD)	-	10 Gigabit
	Memory optimized	r4.large	2	15.25	EBS only	Yes	High
	Memory optimized	r4.xlarge	4	30.5	EBS only	Yes	High

```
    zero array

  [ ] zero_arr1 = np.zeros(5)
     print(zero_arr1)
     zero_arr2 = np.zeros((4,4))
     print(zero_arr2)
  [→ [0. 0. 0. 0. 0.]
     ********
                *******************
     [[0. 0. 0. 0.]
      [0. 0. 0. 0.]
      [0. 0. 0. 0.]
      [0. 0. 0. 0.]]

    ones array

  [ ] one_arr1 = np.ones(4)
     print(one_arr1)
     ***********
     one_arr2 = np.ones((3,2), dtype = int)
     print(one_arr2)
  [→ [1. 1. 1. 1.]
     [[1 1]]
     [1 1]
      [1 \ 1]]
```

```
[] rand_arr = np.random.rand(5,4)
print(rand_arr)

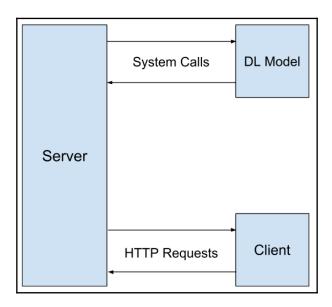
[] [0.37997193 0.71844568 0.07820339 0.55507054]
[0.28035038 0.63730088 0.4725696 0.08614317]
[0.94396988 0.12329078 0.39922435 0.02075598]
[0.58262311 0.26633394 0.498427 0.09852439]
[0.51260027 0.24621189 0.37022219 0.1738425 ]]
```

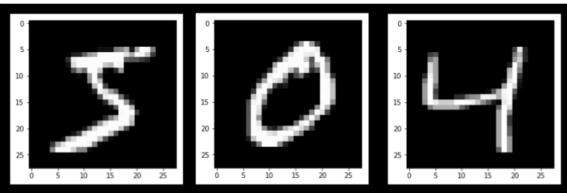
```
[8] array1 / array2
[→ array([[0.1111111, 0.25 , 0.42857143],
       [0.666666667, 1. , 1.5 ],
       [2.33333333, 4. , 9. ]])
```

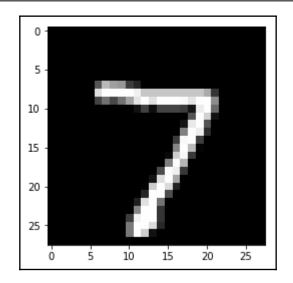
```
[4] a = np.arange(12).reshape(3, 4)
a array([[0, 1, 2, 3],
[4, 5, 6, 7],
[8, 9, 10, 11]])
[5] rows = np.array([False, True, True])
[6] a[rows, :]
[→ array([[4, 5, 6, 7],
[8, 9, 10, 11]])
```

C⇒		dob	hobby	weight
	Max	1970	Singing	100
	Ram	1990	Reading	60
	Sam	1991	NaN	80

Chapter 3: Creating Your First Deep Learning Web Application





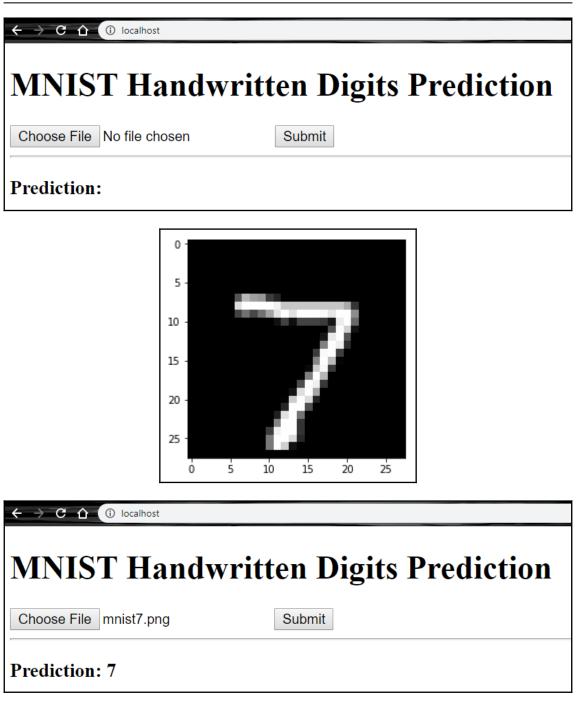


10000/10000 [==================] - 1s 56us/step Test loss: 0.02411479307773807 Test accuracy: 0.9931

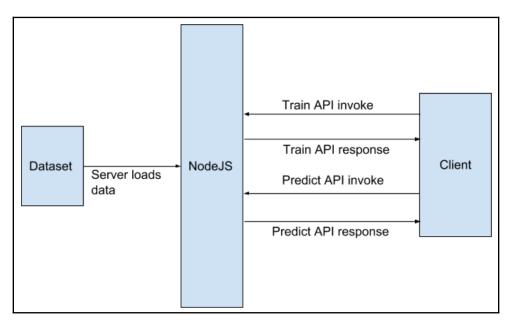


C:\WINDOWS\system32\cmd.exe

C:\Users\Training\Downloads≻curl -X POST -F img=@self2.png http://localhost/predict/



Chapter 4: Getting Started with TensorFlow.js





"@ten "body	lencies": { nsorflow/tfjs": "^0. v-parser": "^1.18.3" ress": "^4.16.4"	
<pre>xprilion@xl:~/tfjs-iris\$ noc</pre>	le index.js	
Hi there 🌺 Looks like you gs up dramatically, install running npm i @tensorflow/t have CUDA. Then call requir at the start of your program more details.	our node backend, which bi fjs-node, or npm i @tenson e('@tensorflow/tfjs-node') n. Visit https://github.com	inds to TensorFlow C++, by flow/tfjs-node-gpu if you); (-gpu suffix for CUDA)
Layer (type)	Output shape	Param #
dense_Dense1 (Dense)	[null,10]	50
dense_Dense2 (Dense) ====================================	[null,3]	33

Petal Length: 1.4 Petal Width: 0.2

Predict!

Result

Setosa

First, train the model. 1	nen, use the text boxes to t	y any duminy data.		
Sepal Length: 1				
Sepal Width: 1 Petal Length: 1				
Petal Width: 1				
Predict!				
Result				
→ C û 🕕	calhost:3000			
TI	- F l-	I		· C ·
nsorFlow.	s Example	- Iris Flov	ver Class	ificati

Chapter 6: Deep Learning on Google Cloud Platform Using Python

	Q	Docs	Support	Sign in	Try free	
-	-		form for fr	ee		
Step	o 1 of	2				
Count	гy					
India						•
Terms	of Serv	ice				
	ave read Service.		ee to the <u>Go</u>	ogle Cloud	l Platform Free Trial	Terms
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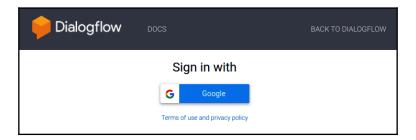
\equiv Google Cloud Platform	🕽 gdgkolkata 👻	٩		-	5 🗊 G) 🕴 E 🧶
DASHBOARD ACTIVITY						CUSTOMISE
Project info	I PPI APIS		: 0	Google Cloud F	Platform status	: :
Project name gdgkolkata	Requests (reques	,	.0	All services normal		
Project ID gdgkoldevfest		0	_	Go to Cloud status da	ashboard	
Project number 633602111116	A No data is a	vailable for the selected time frame.		Error Reporting		:
\rightarrow Go to project settings			.2	No sign of any errors		ror Reporting?
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- Trace	:			Containing our enthu news from Google Cl 4 hours ago	oud Next '19	
No trace data from the last 7 days				American Cancer Soc learning to power car 4 hours ago		oud machine

🐌 fast-ai-exploration 👻

Select a project			NEW PR	OJECT
Search projects and folders				
RECEN	ALL ALL			
	Name	ID		
✓ * •	fast-ai-exploration 🕐	fast-ai-exploration		
**	gcp-api 🕐	gcp-api-232806		
			CANCEL	OPEN

4	You have 22 projects remaining in your quota. Req delete projects. Learn more	uest an increase or		
	MANAGE QUOTAS			
Project	Name *			
Demo F	Demo Project Ø			
-	ID: annular-ray-232011. It cannot be changed later. EDI	T		
	organization	BROWSE		
Parent o	organization or folder			
	E CANCEL			



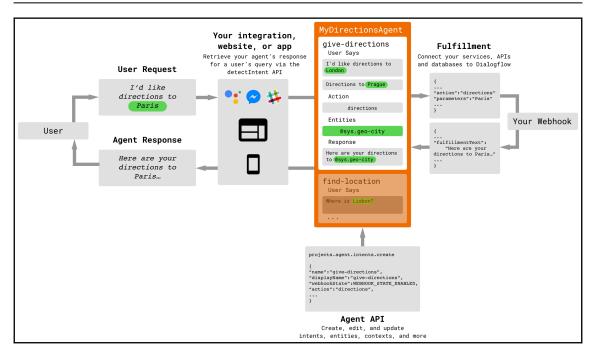


Pialogflow	DemoBot	CREATE
+ Create Agent > Docs ③ Support ▲ Account ٺ Logout	DEFAULT LANGUAGE English – en Primary language for your agent. Other languages can be added later. GOOGLE PROJECT gcp-api-232806 Enables Cloud functions, Actions on Google and permissions management.	DEFAULT TIME ZONE (GMT+5:30) Asia/Colombo • Date and time requests are resolved using this timezone. •
Pialogflow	Intents CREATE INTE	NT I Try it now
DemoBot - 🔆 en + Tintents +	Search intents	Q T O Please use test console above to try a sentence.
 Entities + Knowledge [beta] Fulfillment Integrations Training History Analytics Prebuilt Agents Small Talk 	Default Welcome Intent	
> Docs Standard Free Upgrade		

Dummy Intent		SAVE
Training phrases 🔞	Search training phrases	۹ ۸
55 Add user expression		©
55 Let us invoke the dummy		
55 I want to talk to the dummy		
55 Call the Dummy Intent!		

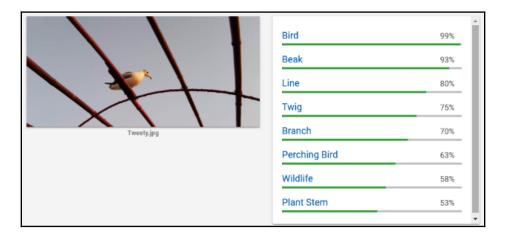
Re	ponses 🕜	^
DEF	AULT +	
1	ext response	0 1
1	You have called the dummy intent!	
2	Congratulations, dummy intent user!	
3	Enter a text response variant	
A	DD RESPONSES	
\bigcirc	Set this intent as end of conversation ?	

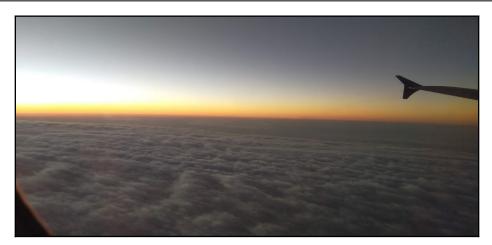
Talk to the dummy Image: Comparison of the dummy See how it works in Google Assistant. Image: Comparison of the dummy				
USER SAYS	COPY CURL			
Talk to the dummy				
DEFAULT RESPONSE	•			
Congratulations, dummy inte	nt user!			
INTENT				
Dummy Intent				
ACTION				
Not available				



Credentials			
Credentials OAuth consent screen Domain verification			
Create credentials 🔻 Delete			
API key Identifies your project using a simple API key to check quota and access			
OAuth client ID Requests user consent so your app can access the user's data			
Service account key Enables server-to-server, app-level authentication using robot accounts			
Help me choose Asks a few questions to help you decide which type of credential to use			

Integrations				
	•	Google Assistant Build Actions for the Google Assis Google Home, Android phones, an		
		INTEGRATION SETTINGS		
Web Demo	Facebook Messenger	Dialogflow Phone Gateway ^{BETA}	slack	
	0			
Viber	Twitter	Twilio IP	Twilio (Text messaging)	







Source Language English (en)	~	←→ Target Language Bengali (bn) ←
I play Cricket.		আমি ক্রিকেট খেলি।

[36]

Chapter 7: DL on AWS Using Python: Object Detection and Home Automation



Create an AWS account

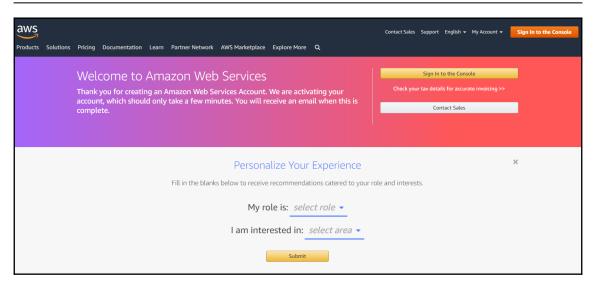
AWS Accounts Include 12 Months of Free Tier Access

Including use of Amazon EC2, Amazon S3, and Amazon DynamoDB Visit **aws.amazon.com/free** for full offer terms

Confirm password AWS account name Continue	Email address
AWS account name 1	Password
Continue	Confirm password
Continue	
	AWS account name 0
Sign in to an existing AWC assount	Continue
Sign in to an existing AvvS account	Sign in to an existing AWS account

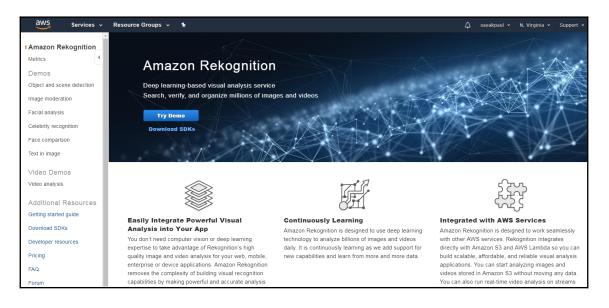
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aws Services - Resour	ce Groups 🗸 🔹			⊥ tapaskumarpaul × Ohio × Support ×
AWS Manage	ement Cons	sole		
AWS services				Access resources on the go
Find Services You can enter names, keywords or acron Q. Example: Relational Database				Access the Management Console using the AWS Console Mobile App. Learn more 🕻
 Recently visited services Billing 				Explore AWS
► All services				Set up, operate, and scale your relational database in the cloud. Learn more 🗹
Build a solution Get started with simple wizards and aut	omated workflows.			AWS Marketplace Find, buy, and deploy popular software products that run on AWS. Learn more
Launch a virtual machine With EC2 2-3 minutes	Build a web app With Elastic Beanstalk 6 minutes	Build using virtual servers With Lightsail 1-2 minutes	Connect an IoT device With AWS IoT 5 minutes	Amazon SageMaker Machine learning for every developer and data scientist. Learn more C Open Distro for Elasticsearch
Start a development project With CodeStar 5 minutes	Register a domain With Route 53 3 minutes	Deploy a serverless microservice With Lambda, API Gateway 2 minutes	Create a backend for your mobile app With Mobile Hub 5 minutes	A 100% open-source, community driven distribution of Elasticsarch with enterprise-grade security and alerting features Learn more 🖸

History		1 500 00 10				0.000	. 7
Console Home	Find a service by name or feature (f	or example, EC2, S3 or VI	N, storage).			Group	A-Z
tekognition	A	В	F	0	х		
3 M	Alexa for Business Amazon Chime 🖸 Amazon Comprehend	Batch	FSx	OpsWorks	X-Ray		
illing	Amazon Connect Amazon Connect Amazon Forecast Amazon Forecast Amazon Forecast Amazon Forecast Amazon Ica Amazon Lex Amazon Manged Blockchain Amazon Manged Blockchain Amazon Manged Blockchain Amazon Manged Blockchain Amazon Porly Amazon Personalize Amazon Polly Amazon Redshift Amazon SageMaker Amazon SageMaker Amazon Transcribe Amazon Transcribe Amazon Translate API Gateway Application Discovery Service	C Certificate Manager Cloud9 CloudFormation CloudFornt CloudFort CloudSearch CloudTrail CloudWatch CodeBuild CodeCommit CodeDeploy CodePipeline CodeStar Cognito Config Control Tower	G Global Accelerator (2ª Ground Station GuardDuty I IAM Inspector IoT 1-Click IoT Analytics IoT Core IoT Device Defender IoT Device Management IoT Cevents IoT Greengrass IoT Greengrass IoT SiteWise IoT Things Graph	P Personal Health Dashboard (2' Pinpoint Q QuickSight (2' R RDS Rekognition Resource Access Manager Route 53 S S S S S S S S S S S S S S S S S S S			



aws Serv	ces 🗸 Resource Groups 🖌 🛠		🗘 sayakpaul 🕶 Global 🕶 Support
Search IAM	Welcome to Identity and Access Mana	gement	Feature Spotlight
Dashboard Groups Users	IAM users sign-in link:	Customize	Introduction to AWS IAM
Roles Policies Identity providers Account settings		es: 2 ntity Providers: 0 0 out of 5 complete.	● ▲) 0000/2:16 []
Credential report	A Delete your root access keys	~	Additional Information
Encryption keys	Activate MFA on your root account	~	IAM best practices
	Create individual IAM users	~	Web Identity Federation Playground
	Use groups to assign permissions	~	Policy Simulator Videos, IAM release history and additional
	Apply an IAM password policy	~	resources

Your Security Credentials

Use this page to manage the credentials for your AWS account. To manage credentials for AWS identity and Access Management (IAM) users, use the IAM Console

To learn more about the types of AWS credentials and how they're used, see AWS Security Credentials in AWS General Reference.

▼ Password

You use an email address and password to sign in to secure pages on AWS, such as the AWS Management Console, AWS Forums, and AWS Support. For your protection, create a password that contains many characters, including numbers and punctuation. Store your password securely, do not share it, and change it periodically.

Click here to change the password, name, or email address for your root AWS account.

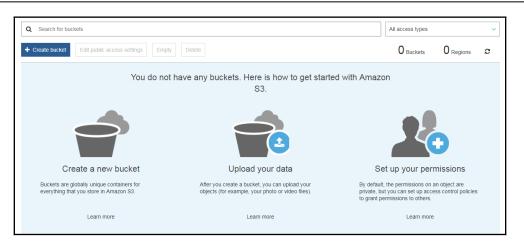
Multi-factor authentication (MFA)

Access keys (access key ID and secret access key)

- CloudFront key pairs
- ▲ X.509 certificate

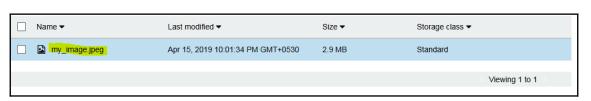
Account identifiers

Create Access Key		×
Download your key file now, which contai	ecret access key) has been created successfully. ins your new access key ID and secret access key. If you do not e able to retrieve your secret access key again.	
To help protect your security, store your secr Show Access Key	Tet access key securely and do not share it.	



	Create	bucket		
1 Name and region	2 Configure options	3 Set permissions		
Name and region				
Bucket name 🕚				
Enter DNS-compliant bucket	name			
Region				
US East (Ohio)			~	
Copy settings from an exis	ting bucket			
You have no buckets0 Bucke	ets		~	
Create			Cancel	ext

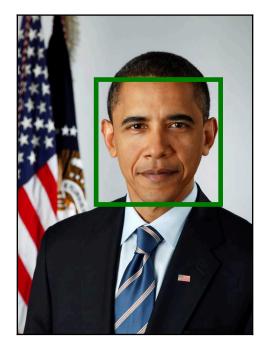
S3 buckets				Discover the	console
Q Search for buckets			All access types		~
+ Create bucket Edit public access settings Empty Delete			1 Buckets	1 Regions	c
Bucket name 💌	Access 🕕 🔻	Region -	D	ate created 💌	
demo-bucket-sayak	Objects can be public	US East (Ohio)		pr 16, 2019 9:06:49 MT+0530	AM

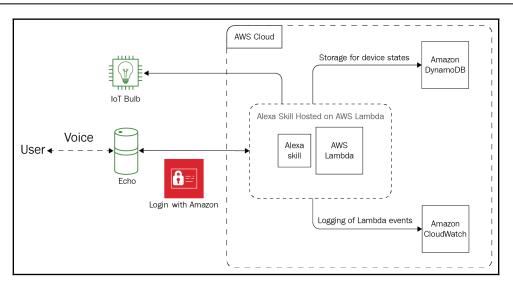






oyter					
Running	Clusters				
Select items to perform actions on them.					
- 1					
Sample.ipynl	0				
image.jpg					
	ns to perform a				

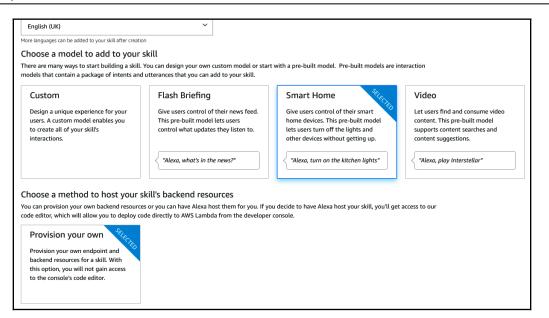






Secur	Security Profile Management						
Smart Home Automation Profile - Security Profile							
General	Web Settings	Android/Kindle Settings	iOS Settings	TVs and Other Devi	ces Settings		
	These settings apply to all the apps using this security profile. Your security profile credentials — Client ID and Client Secret — allow your app to securely identify itself to Amazon services. <u>Learn More</u>						
Security F	rofile Name	Smart H	ome Automation	Profile			
Security P	rofile Descriptio	on Somethi	ng Something				
Security P	Profile ID	amzn1.a	pplication.XXXX	****	xxxxxxxxx	XXXXX	
Consent F	Consent Privacy Notice URL ? https://git.xprilion.com/privacy-policy/						
Consent L	.ogo Image <i>?</i>						
				Edit	Delete Secu	rity Profile	

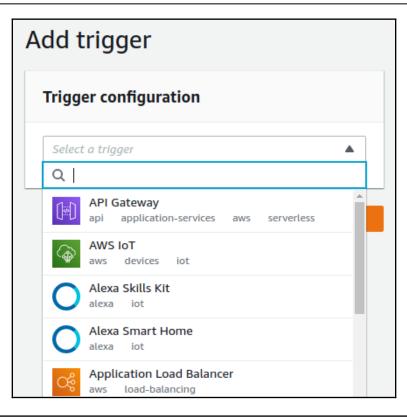




aws Servio	ces 🕶	Resource Gr	roups 🗸 🛠		
Search IAM	Crea	te policy	Policy actions 🔻		
Dashboard	Filter	policies 🗸	Q Search		
Groups Users		Policy n	ame 🔻	Туре	Used as
Roles	0	🕨 🧵 Adm	inistratorAccess	Job function	Permissions
Policies		🕨 🧵 Alex	aForBusinessDeviceSetup	AWS managed	None
Identity providers		🕨 🧵 Alex	aForBusinessFullAccess	AWS managed	None
Account settings		🕨 🧵 Alex	aForBusinessGatewayExecution	AWS managed	None
Credential report	0	🕨 可 Alex	aForBusinessNetworkProfileServic	AWS managed	None

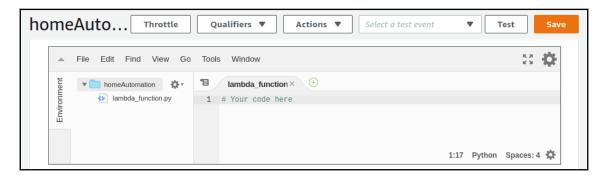
Create role	(1 2 3 4					
 Attach permissions policies 							
Choose one or more policies to attach to your new r	role.						
Create policy							
Filter policies ~ Q home		Showing 1 result					
Policy name 👻	Used as	Description					
HomeAutomationPolicy	None	abc					

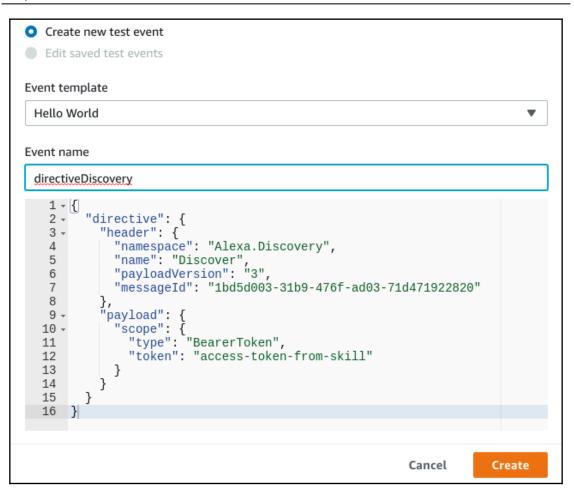
Configuration P	ermissions Monitoring		
▼ Designer			
	homeAutomation		
	Layers	(0)	
+ Add trigger			+ Add destination





Create DynamoDB table						
	DynamoDB is a schema-less database that only requires a table name and primary key. The table's primary key is made up of one or two attributes that uniquely identify items, partition the data, and sort data within each partition.					
Table name* SmartHome						
Primary key*	Partition key					
	ItemId	String 🔻 🕄				
	Add sort key					
Table settings						
Default settings provide th	e fastest way to get started with your t	table. You can modify these default settings now or after your table has been	created.			
	✓ Use default settings					
 No secondary indexes. Provisioned capacity set to 5 reads and 5 writes. Basic alarms with 80% upper threshold using SNS topic "dynamodb". Encryption at Rest with DEFAULT encryption type. 						





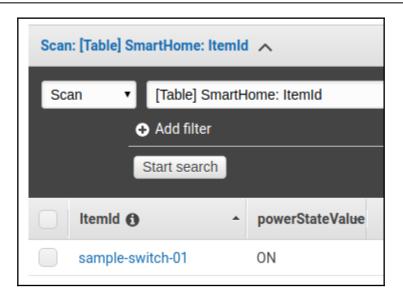
```
Graphics bundle
```

homeAuto Throttle Qualifiers V	ctions	Save
 Execution result: succeeded (logs) Details 		×
The section below shows the result returned by your function	execution.	
<pre>{ "event": { "header": { "namespace": "Alexa.Discovery", "name": "Discover.Response", "messageId": "5468ee94-8500-49b3-a71e-5a "payloadVersion": "3" }, "payload": { "endpoints": [" } }</pre>	a8ac7e0ca3",	•
Summary		
Code SHA-256	Request ID	
BLeQ4hif8/YlNwDl8C7p33gTBlkqKtVJqvYgLbxL068=	cbfb9230-9b50-4776-8e77-fef338de765c	
Duration	Billed duration	
0.74 ms	100 ms	
Resources configured	Max memory used	
128 MB	64 MB	
Log output		

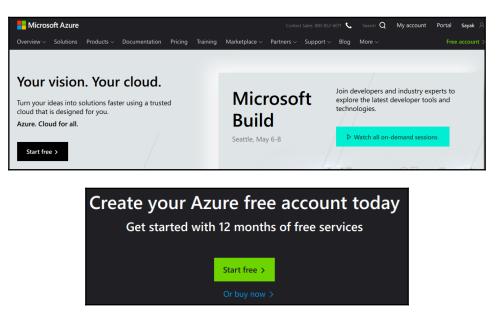
Home	Your Skills			
Now Playing	Find in your skills			
Music, Video & Books	0	0	0	Ð
Lists	ENABLED SKILL	JUST UPDATED	NEED ATTENTION	FIND MORE SKILLS
Reminders & Alarms				
Skills	RECENTLY ADDED ALL SKILLS I	DEV SKILL		
Smart Home	HomeAutomationSkill			
Things to Try	Account linking required			
Settings				
Help & Feedback				
Not Mayank? Sign out				

Devices			
			Sort by Newest 🗸
Sample Switch Sample Endpoint Description			Forget
	Showing 1	Discover	Forget All

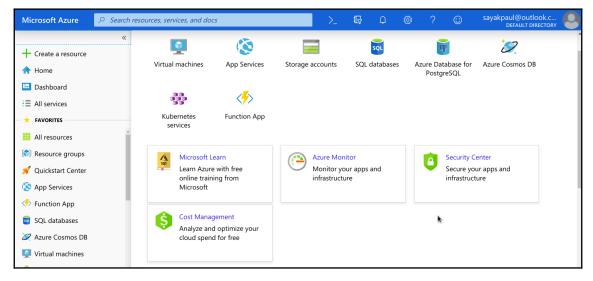
Skill testing is enable	ed in: Develo	pment ~
Alexa Simulator	Manual JSON	Voice & Tone
English (GB) 🗸 🗸	Type or click and hold the mic	
	alexa, turn on the	e sample switch
О		



Chapter 8: Deep Learning on Microsoft Azure Using Python



	Microsoft Azure	Sign out
	Azure free accour Start with a ₹13,300 credit fo	nt sign up r 30 days, and keep going for free
1	About you	A What's included
	Country/Region 🔹 India 🔹	12 months of free products Get free access to popular products like virtual machines, storage, and databases in your first 30 days, and for 12 months after you upgrade to a Pay-As-You-Go subscription.
	Last name	\$200 credit Use your \$200 to experiment with any Azure service in your first 30 days—beyond the free product amounts.
	Email address 0	25+ always-free products Take advantage of more than 25 products, including serverless, containers, and artificial intelligence



Azure Machine Learning service

Accelerate the end-to-end machine learning lifecycle

Start free >

APIs Machine Learning APIs

Explore these Azure Machine Learning APIs that allow you to access operationalized predictive analytics solutions.

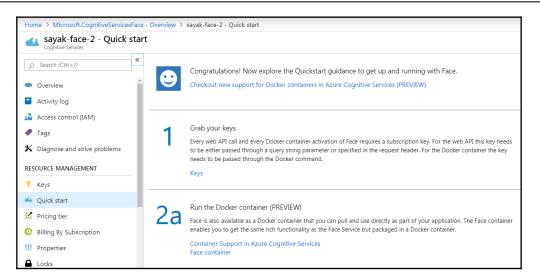
Azure Al

Make artificial intelligence (AI) real for your business today.

Start free >

Create Face		
* Name		
Enter a name		
* Subscription		
Free Trial		\sim
* Location		
		\sim
* Pricing tier (V	iew full pricing details)	
		\sim
* Resource gro	up	
Select existing		\sim
Create new		
Create	Automation options	

o You	 Your deployment is complete 							
Go	Go to resource							
:	Deployment name: Microsoft.CognitiveServicesFace Subscription: Free Trial Resource group:							
DEPLOY	MENT DETAILS (Download)							
	time: 5/6/2019, 10:04:48 AN tion: 10 seconds	Λ						
	elation ID:							
	RESOURCE TYPE STATUS OPERATION DETAILS							
0	Sayak-face-2 Microsoft.CognitiveServic Created Operation details							



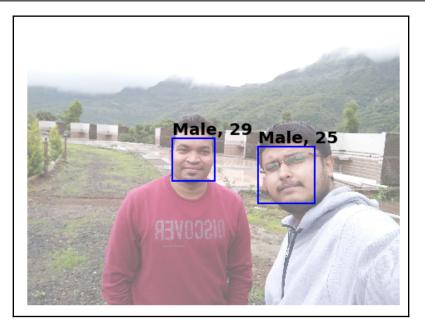
Grab your keys

Every web API call and every Docker container activation of Face requires a subscription key. For the web API this key needs to be either passed through a query string parameter or specified in the request header. For the Docker container the key needs to be passed through the Docker command.

Keys

Home > Microsoft.CognitiveServicesFace - Overview > sayak-face-2 - Quick start > Manage keys	
💡 Manage keys	\times
C Regenerate Key1 C Regenerate Key2	
NAME sayak-face-2	<u>کم</u>
KEY 1	ß
KEY 2	
	ß



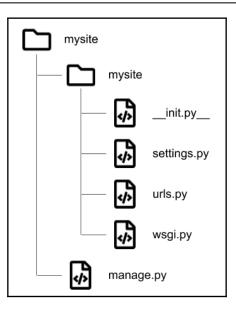


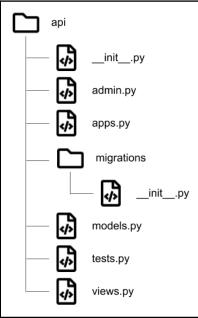
I want to attend NeurIPS someday and present a paper there.	Analyzed text	NOSL
	languages:	English (confidence: 100 %)
	() KEY PHRASES:	NeurIPS, paper
	i SENTIMENT:	18 %
Θ	LINKED ENTITIES (PREVIEW):	I want to attend NeurIPS someday and present a paper there.
Analyze		

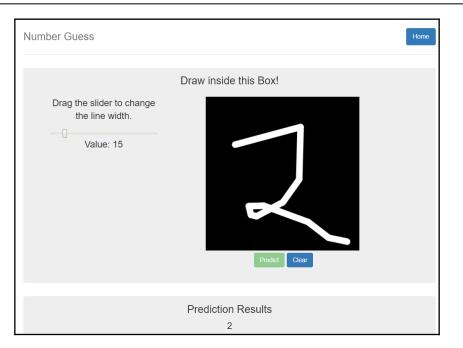
{'documents': [{'detectedLanguages':	[{'iso6391Name': 'en',
	'name': 'English',
	'score': 1.0}],
'id': '1'}],	
'errors': []}	

{'documents': [{'id': '1', 'score': 0.17243406176567078}], 'errors': []}

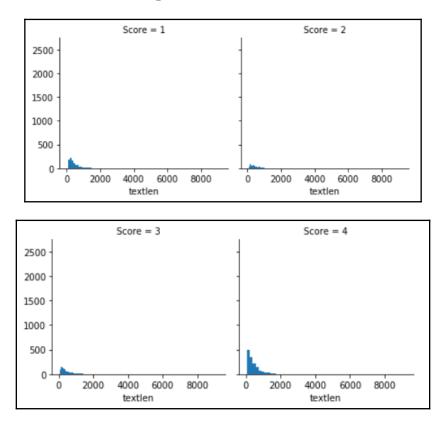
{'documents': [{'id': '1', 'keyPhrases': ['NeurIPS', 'paper']}], 'errors': []}

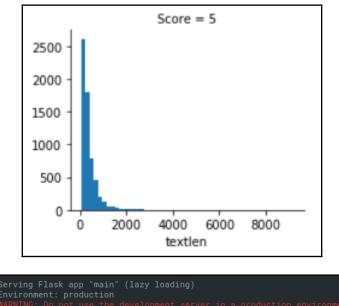






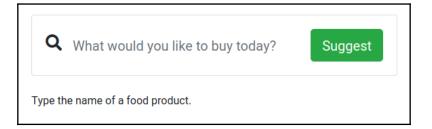
Chapter 9: A General Production Framework for Deep Learning-Enabled Websites

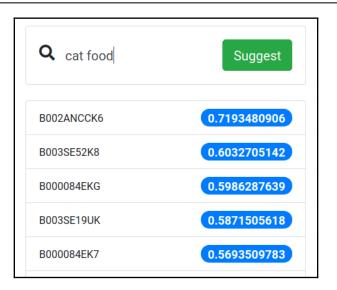




*

- * Debug mode: on * Running on http://127.0.0.1:4000/ (Press CTRL+C to quit)
- * Restarting with stat
 * Debugger is active!
 * Debugger PIN: 218-648-473





Chapter 10: Securing Web Apps with Deep Learning



Write the words you see above in the box below:

	0					
1						
0	13413					
1	13360					
Ma.	licious	request	logs	in	dataset:	49.90%

```
In [8]: json.loads(X[0])
Out[8]: {'timestamp': 1502738643671,
    'method': 'post',
    'query': {},
    'path': '/login',
    'statusCode': 401,
    'source': {'remoteAddress': '12.93.106.47'},
    'route': '/login',
    'headers': {'host': 'localhost:8002',
    'connection': 'keep-alive',
    'cache-control': 'no-cache',
    'accept': '*/*,
    'accept-encoding': 'gzip, deflate, br',
    'accept-language': 'en-US,en;q=0.8,es;q=0.6',
    'content-type': 'application/json',
    'content-tength': '36'},
    'requestPayload': {'statusCode': 401,
    'error': 'Unauthorized',
    'message': 'Invalid Login'}}
```

Layer (type)	Output Shape	Param #
embedding_1 (Embedding)	(None, 1024, 32)	2016
dropout_1 (Dropout)	(None, 1024, 32)	Θ
lstm_1 (LSTM)	(None, 64)	24832
dropout_2 (Dropout)	(None, 64)	Θ
dense_1 (Dense)	(None, 1)	65
Total params: 26,913 Trainable params: 26,913 Non-trainable params: 0		

In [15]: print("Model Accuracy: {:0.2f}%".format(acc * 100))
Model Accuracy: 96.47%

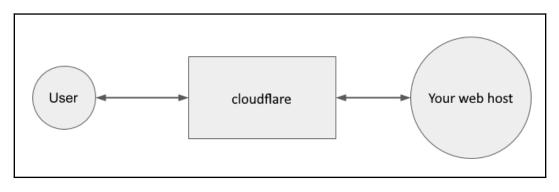
^C(base) xprilion@x1:~/html/Hands-On-Python-Deep-Learning-for-Web/Chapter10/webapp\$ python manage.py migrate
Operations to perform:
Apply all migrations: admin, auth, contenttypes, sessions
Running migrations:
Applying contenttypes.0001_initial OK
Applying auth.0001_initial OK
Applying admin.0001_initial OK
Applying admin.0002_logentry_remove_auto_add OK
Applying contenttypes.0002_remove_content_type_name OK
Applying auth.0002_alter_permission_name_max_length OK
Applying auth.0003_alter_user_email_max_length OK
Applying auth.0004_alter_user_username_opts <mark>OK</mark>
Applying auth.0005_alter_user_last_login_null 0K
Applying auth.0006_require_contenttypes_0002 OK
Applying auth.0007_alter_validators_add_error_messages OK
Applying auth.0008_alter_user_username_max_length OK
Applying auth.0009_alter_user_last_name_max_length <mark>OK</mark>
Applying sessions.0001_initial OK

reCAPTCHA type: v3	
reCAPTCHA keys	
Use this site key in the H	TML code your site serves to users. 🔀 See client side integration
	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
Use this secret key for co	ommunication between your site and reCAPTCHA. 🔀 See server side integration
	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

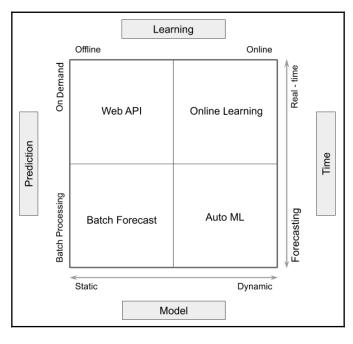
Gran	hics	bundle
Grupi	1100	Unnaic

BillBoard		
	Login Page	
	User id	
	Password	
	Login	

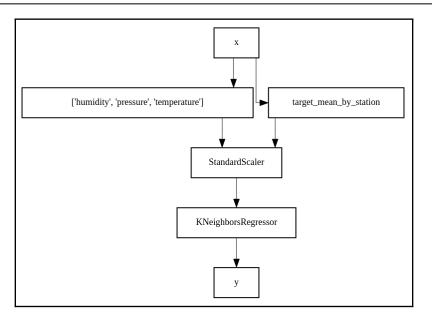
BillBoard	View All A	dd Bill Logout	
		Add Bill	
		New Bill	
		Desc	J
		Submit	
			Privacy-Terms



Chapter 11: DIY - A Web DL Production Environment





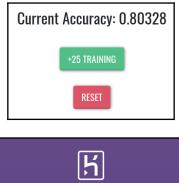


N	Airflow	DAGs Data Profiling 🗸 Browse 🗸	Admin 🛩 🛛 D	ocs 🗸 🛛 A	sbout 🗸			2019-11-06 14:34:15 UTC					
DA	Gs												
Search:													
	Image: DAG DAG Schedule Owner Recent Tasks Image: TasksImage: Tasks Image: TasksImage: Tasks Image: TasksImag												
ø	Off	example_bash_operator	00***	Airflow				⊙ ♥ ♥ di 🖬 ★ 트 ☰ ♡ 😣					
ø	Off	example_branch_dop_operator_v3	*/1****	Airflow				⊙ ♥ ♥ ₼ ₩ ★ ≡ ≁ ≡ C ⊗					
ø	Off	example_branch_operator	@daily	Airflow				⊙ ♥ ♥ JI II ★ 트 ≁ ≡ C ⊗					
Ø	Off	example_http_operator	1 day, 0:00:00	Airflow				⊙ ♥ ♥ JI III ★ 트 ≁ ≡ C ⊗					
Ø	Off	example_passing_params_via_test_command	*/1****	airflow				⊙ ♥ ♥ ₼ ₩ ★ ⋿ ≁ ≡ C ⊗					
Ø	Off	example_pig_operator	None	Airflow				⊙ ♥ ♥ ₼ ₩ ★ ⋿ ≁ ≡ C ⊗					
Ø	Off	example_python_operator	None	Airflow				⊙ ♥ ♥ Ji M ★ 트 ≁ ≡ C ⊗					
Ø	Off	example_short_circuit_operator	1 day, 0:00:00	Airflow				⊙ ♥ ♥ Ji Bi ★ ☰ ☰ ᢗ ⊗					
ø	Off	example_skip_dag	1 day, 0:00:00	Airflow				⊙ ♥ ♥ Ji Bi ★ ☱ ≁ ☰ ♡ ⊗					
ø	Off	example_subdag_operator	@once	Airflow				⊙ ♥ ♥ JI II ★ 트 ≁ ≡ C ⊗					
Ø	Off	example_trigger_controller_dag	@once	airflow				⊙ ♥ ♥ Ji 🖬 ★ 트 ≁ ≡ ♡ 😣					

	age	sex	ср	trestbps	chol	fbs	restecg	thalach	exang	oldpeak	slope	ca	thal	target
0	63	1	3	145	233	1	0	150	0	2.3	0	0	1	1
1	37	1	2	130	250	0	1	187	0	3.5	0	0	2	1
2	41	0	1	130	204	0	0	172	0	1.4	2	0	2	1
3	56	1	1	120	236	0	1	178	0	0.8	2	0	2	1
4	57	0	0	120	354	0	1	163	1	0.6	2	0	2	1

Iters	25 :	0.6065573770491803
Iters	50 :	0.7540983606557377
Iters	75 :	0.7704918032786885
Iters	100 :	0.8032786885245902
Iters	125 :	0.8360655737704918
Iters	150 :	0.8360655737704918
Iters	175 :	0.8524590163934426
Iters	200 :	0.8360655737704918
Iters	225 :	0.819672131147541
Iters	241 :	0.8360655737704918

In [28]:	<pre># Positive Sample clf.predict(X_test[30].reshape(-1, 1).T)</pre>
Out[28]:	array([1])
In [32]:	<pre># Negative Sample clf.predict(X_test[0].reshape(-1, 1).T)</pre>
Out[32]:	array([0])



НЕКОКИ
Log in to your account
Email address
Password
Log In
New to Heroku? Sign Up
Log in via SSO Forgot your password?

Q Person	nal 🗘 ≻ 🧾 afternoo	n-hollows-74	4365								7	*	Open app	P	More 0
Overview	Resources Deploy	Metrics	Activity	Access	Settings										
Activity Feed	> Build Log										ID a79c9	e2d-ab	b7-45a7-84	4e9-1b	e954bf6e
	creating build/temp.l: gcc-pthread-wnco-num- r.cpp -o build/temp.linn In file included from src/pyodbc.h:56:10: fi #include <sql.h> </sql.h>	sed-result - ux-x86_64-3. src/buffer. atal error: 1. failed with	Wsign-compar 6/src/buffer cpp:12:0: sql.h: No su exit status	o -Wno-wr Ich file or	ite-string	S									
open)(fi single-v ! Pus	mmand "/app/.heroku/pyt ile);code=f.read().re version-externally-manag sh rejected, failed to o sh failed	place('\r\n' gedcompil	, '\n');f.cl e" failed wi	ose();exec	(compile(c	ode,f	ile_, 'e	exec'))"	install						

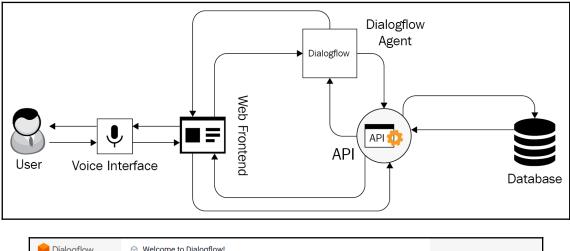
Warning: The pickle module is not secure. Only unpickle data you trust.

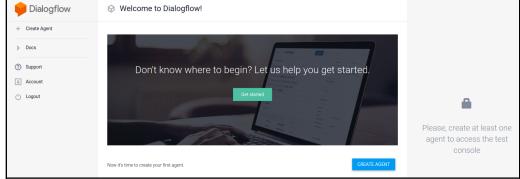
It is possible to construct malicious pickle data which will **execute arbitrary code during unpickling**. Never unpickle data that could have come from an untrusted source, or that could have been tampered with.

Consider signing data with hmac if you need to ensure that it has not been tampered with.

Safer serialization formats such as json may be more appropriate if you are processing untrusted data. See Comparison with json.

Chapter 12: Creating an E2E Web App Using DL APIs and Customer Support Chatbot





Pialogflow	CREATE INTENT	Try it now 🌷
CustomerSupportBot - 🔆	Search intents Q T	Please use test console above to try a sentence.
💬 Intents 🛛 🕂	CheckOrderStatus	
♣ Entities + ▲ Knowledge ^[beta] ↓ Fulfillment ₹2 Integrations	Default Fallback Intent Default Welcome Intent GreetingIntent	See how it works in Google Assistant. [2]
Training Validation [beta] History Analytics		
Prebuilt Agents		
> Docs		

🖵 Intents	CREATE INTENT
Search intents	Q T
CheckOrderStatus	
Default Fallback Intent	
Default Welcome Intent	
GreetingIntent	Add follow-up intent 🐼 📋

	works in Google Assistant.
Agent	
JSER SAYS	COPY CURL
DEFAULT RESP Sure, could you p	ONSE 🗸
DEFAULT RESP Sure, could you p ID? It looks like 1	ONSE 🗸
DEFAULT RESP Sure, could you p ID? It looks like 1	ONSE Ilease let me know the Order 2345! RESET CONTEXTS I-43c3-a2c4-52822a3e499
Sure, could you p ID? It looks like 1 CONTEXTS 86a64efe-43f4 e_id_dialog_co	ONSE Ilease let me know the Order 2345! RESET CONTEXTS I-43c3-a2c4-52822a3e499
DEFAULT RESP Sure, could you p ID? It looks like 1 CONTEXTS 86a64efe-43f4 e_id_dialog_cc checkordersta	ONSE - lease let me know the Order 2345! RESET CONTEXTS I-43c3-a2c4-52822a3e499 Intext

Intent name	SAVE
Contexts 🚱	~
Events 🔞	~
Training phrases 🔞	~
Action and parameters	~
Responses 🔞	~
Fulfillment 🔞	~

Training phrases 🔞	Search training phrases	٩٨
99 Add user expression		©
55 help help		
99 help		
99 how can you help me?		
99 what can you do?		
55 help me		

Resp	onses 😧	^
DEFAU	ILT GOOGLE ASSISTANT TELEGRAM +	
Тех	rt Response	01
1	Hey! You can ask me for your order status by mentioning your order id.	
2	Enter a text response variant	-
ADI) RESPONSES	
	Set this intent as end of conversation (?)	

USER SAYS	COPY CURL
Can you help me?	
P DEFAULT RESPONSE	•
Hey! You can ask me for your	order status by
mentioning your order id.	
CONTEXTS	RESET CONTEXTS
system_counters	
INTENT	
INTENT HelpIntent	

Filter
@sys.number-sequence
@sys.number
@sys.zip-code
@sys.given-name

99 What is the status for order id 12345?	2		©
PARAMETER NAME	ENTITY	RESOLVED VALUE	
Orderld	@sys.number	12345	×
99 When will my product arrive?			
99 What has happened to my order?			

Action and pa	Action and parameters				
Enter action name					
REQUIRED Ø	PARAMETER NAME	ENTITY 🕑	VALUE	IS LIST	PROMPTS
 Image: A set of the set of the	Orderld	@sys.number	\$OrderId		Define prompts
	Enter name	Enter entity	Enter value		_
+ New parameter	r				
Fulfillment Fulfillment Fulfillment					
Webhook DISABLED ON Strate a POST request from Dialogflow in the form of the response to a user query matched by intents with webhook enabled. Be sure that your web service meets all the webhook requirements specific to the API version enabled in this agent.					
Inline Editor (Powered by Cloud Functions for Firebase) ENABLED					
Build and manage fulfillment directly in Dialogflow via Cloud Functions for Firebase. Docs index.js package.json // See https://github.com/dialogflow/dialogflow-fulfillment-nodejs // for Dialogflow fulfillment library docs, samples, and to report issues 'use strict';					
4	└ ; tions = require('fireba	se-functions');			

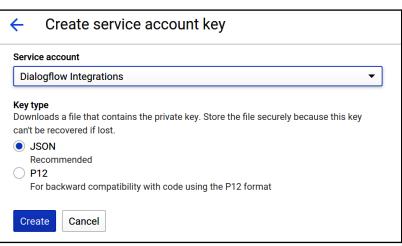
🗇 Small Talk			
Enable			
		its entirety will cause your action to be rejected. See Impor nall Talk features that comply with Action on Google's polic	
Small Talk Custo	nization Progress		5%
About ag	nt	_	22%
QUESTION	Who are you?		
ANSWER	1I am a very smart customer2Enter a Answer variant	support chatbot!	÷

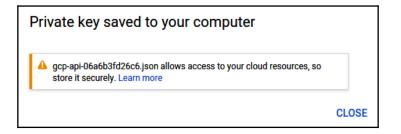
ngrok	Dash	board Download Docs xprilion@gmail.com▼
Explore ngrok	Setup & Installation	
Status Reserved Auth Team Admin Billing	① Download ngrok ngrok is easy to install. Download a single binary with zero run-time dependencies. Mac OS X Windows ▲ Download for Linux Mac (32-Bit) Windows (32-Bit) Linux (ARM)	 Connect your account Running this command will add your account's authtoken to your ngrok.yml file. This will give you more features and all open tunnels will be listed here in the dashboard. ./ngrok authtoken aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa
Want more from ngrok? Upgrade now	Linux (32-Bit) FreeBSD (64-Bit) FreeBSD (32-Bit)	4 Fire it up
	On Linux or OSX you can unzip ngrok from a terminal with the following command. On Windows, just double click ngrok.zip.	Read the documentation on how to use ngrok. Try it out by running it from the command line: S ./ngrok help
	\$ unzip /path/to/ngrok.zip	To start a HTTP tunnel on port 80, run this next:
	Most people keep ngrok in their user folder or set an alias for easy access.	S ./ngrok http 80 ∢ →

ngrok by @inconshreveab	le							
Session Status	online							
Account		Anubhav Singh (Plan: Free)						
Version		2.3.35						
Region		United States (us)						
Web Interface		http://127.0.0.1:4040						
Forwarding		http://51dc7863.ngrok.io -> http://localhost:8000						
Forwarding		https://51dc7863.ngrok.io -> http://localhost:8000						
5								
Connections	ttl	opn	rt1	rt5	p50	p90		
	6	2	0.07	0.02	2.13	2.87		
HTTP Requests								
GET /favicon.ico					404 1	Not Found		
GET /static/public/vend	or/bootstrap	/ic/hoot	etrap bun	dlo min				
GET /static/public/js/s			strap.bui	uie.min.	200 0			
			erv easin	a min is				
<pre>GET /static/public/vendor/jquery-easing/jquery.easing.min.js GET /static/public/vendor/jquery/jquery.min.js</pre>					200 0			
GET /static/public/css/sb-admin-2.min.css					200 0			
GET /static/public/vend			css/all.m	in.css	200 0			
GET /login/					200 0)K		
GET /login					301 M	loved Permanently		
GET /					302 F			

Web	Speech API	Demonstra	tion			
Hi can y here	ou please let me know what's happening					
	Copy and Paste	Create Email				
	English •	United States Image: Image: Image:				







ntegrations #	
rst-party	
Gateway URL https://www.coud.ushakov.co	#
Gateway URL (Realtime) wss://gateway.dialogflow.cloud.ushakov.co	#
UI URL https://	#
Embedded UI 	