



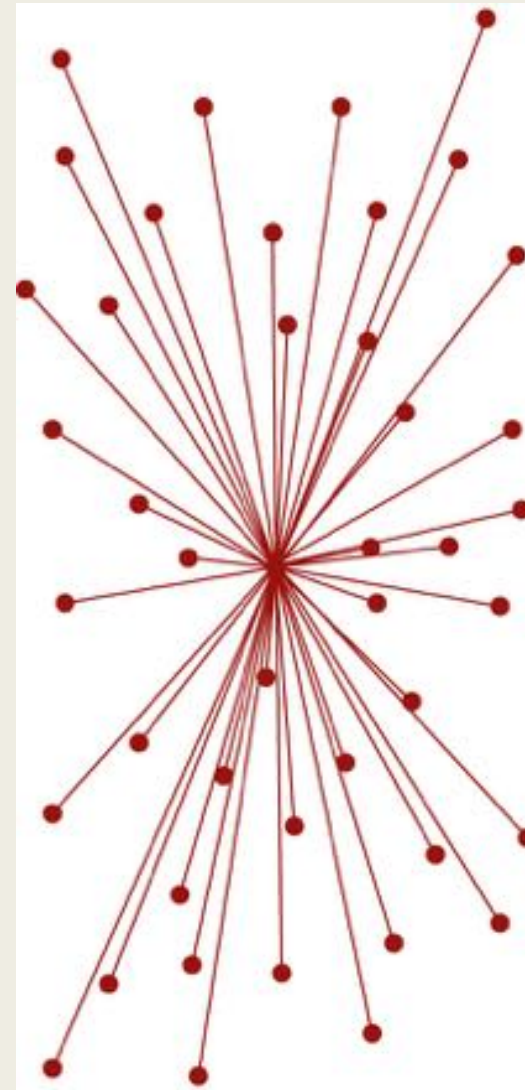
MICROSOFT AZURE

I have used material from internet which require proper citation however I am planning to spent my time rather on explaining stuff rather than citations. Please do not distribute.

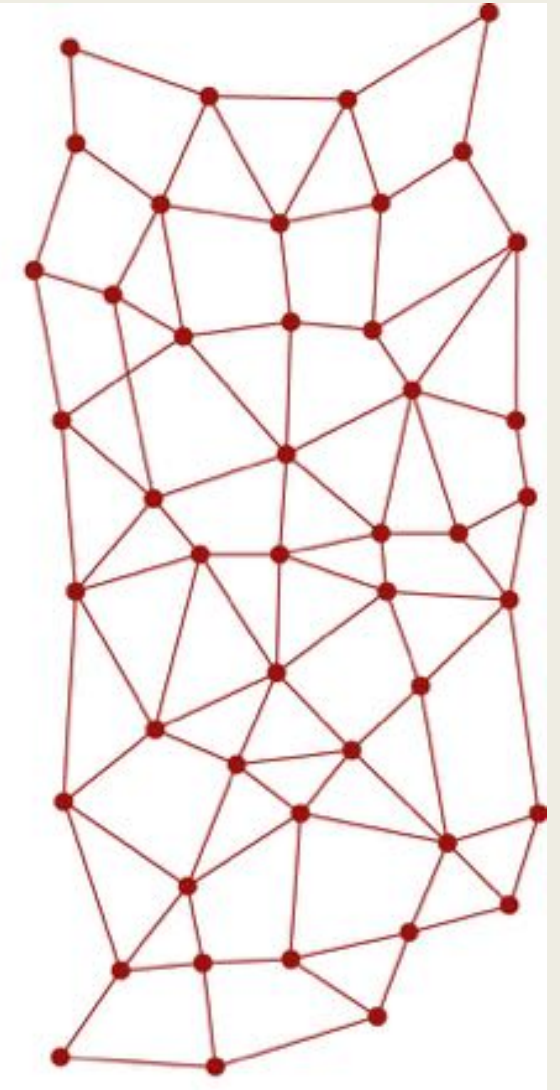


Introduction

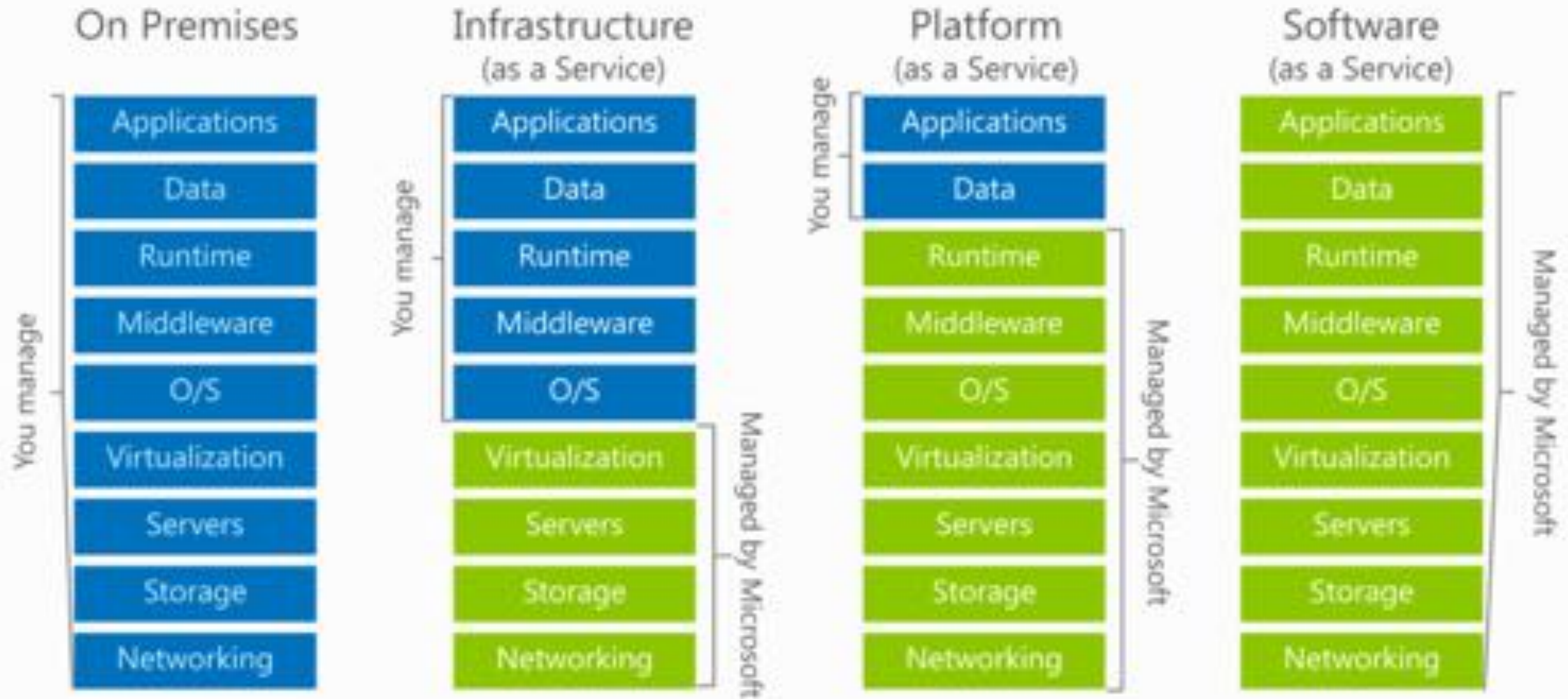
- 1970s
- 1989
- 1991
- 1991
- 1997
- 2008
- [2008] Why to buy a computer ?



Centralized Network



Distributed Network





Microsoft Azure (Mid 2015)

> 80%

Fortune 500 using Azure

> 300k

Active websites

More than
1,000,000

SQL Databases in Azure

> 30 TRILLION
storage objects

> 500 MILLION
AAD users

> 1.65

> 3 MILLION
requests/sec

> 13 BILLION
authentication/wk

MILLION
Developers registered with
Visual Studio Online

Azure App Service: One Integrated Offering



=



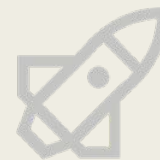
Web Apps

Web apps that scale
with your business



Mobile Apps

Build Mobile apps
for any device



Logic Apps

Automate business process
across SaaS and on-premises



API Apps

Easily build and consume APIs
in the cloud

Introduction

Move Faster

Save Money



Hybrid Consistency

pay only for what you use



■ no upfront costs



per minute billing



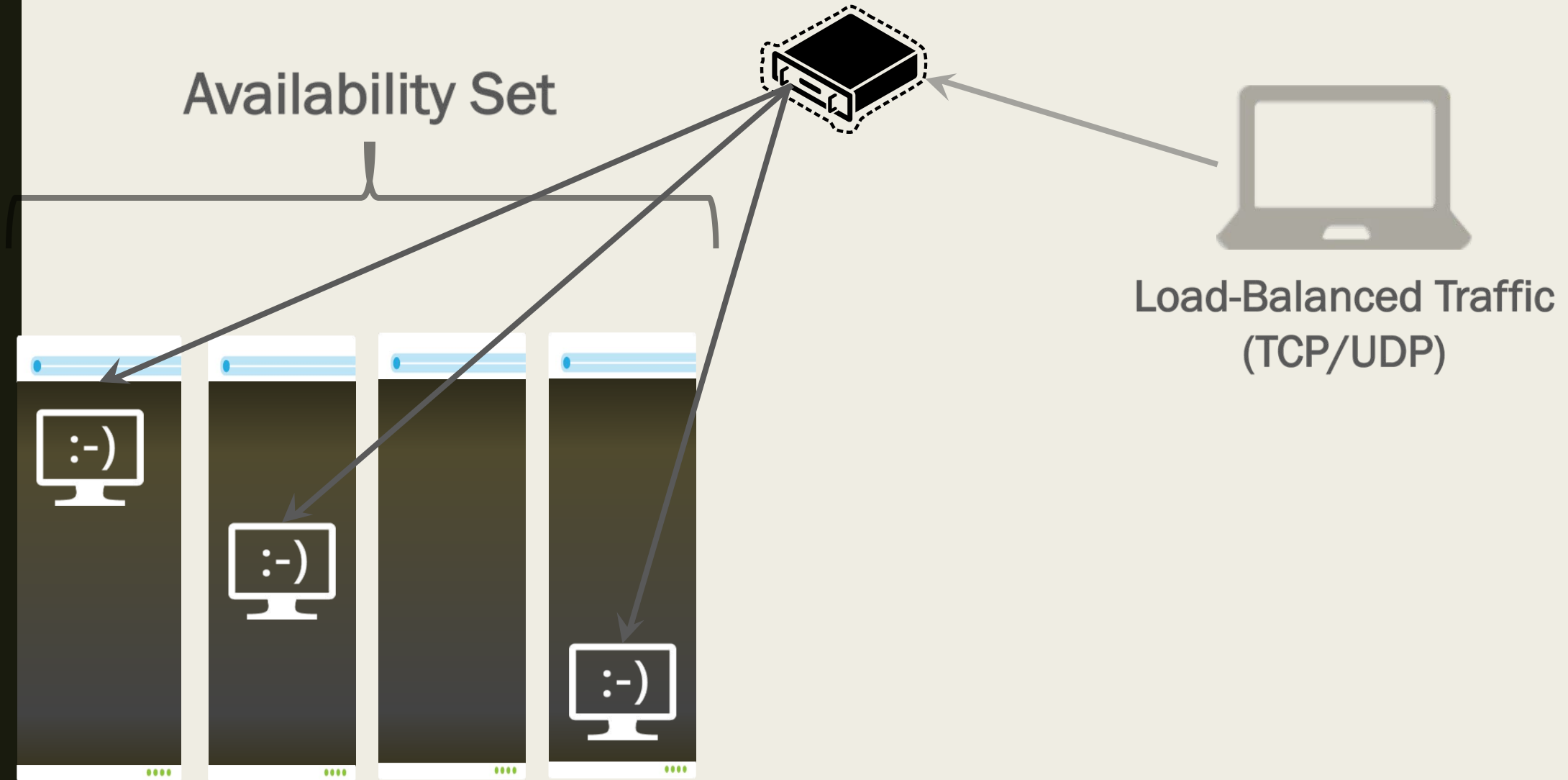
no charge for
stopped VMs



Virtual Machines

- ← Windows Server and Linux Virtual Machines
- ← Flexible Workload Support
- ← Virtual Private Networking

Load Balancing and High Availability



A photograph of a workspace featuring a silver laptop and an open notebook on a wooden desk. The laptop is open, showing its keyboard and trackpad. In the foreground, an open notebook with a blank page is visible, with a black pen resting on it. The text "Go to azure.microsoft.com" is overlaid in white on the laptop's keyboard area.

Go to azure.microsoft.com



Your vision. Your cloud.

Turn your ideas into solutions faster using a trusted cloud that is designed for you.

Azure. Cloud for all.

Start free



Microsoft Build highlights

[Extend AI and analytics to edge devices with Azure IoT Edge](#)


[Develop and infuse custom AI into apps with ML.NET](#)

[Using Kubernetes is simpler than ever with Azure Kubernetes Service \(AKS\)](#)

A photograph of a workspace featuring a silver laptop and an open notebook on a wooden desk. The laptop is open, showing its keyboard and trackpad. The notebook is open to a blank page, with a black pen resting on it. The background is slightly blurred, showing a wooden chair.

Create the account and login

Phone Number + Address +
Credit Card Information

A photograph of a workspace featuring a silver laptop and an open notebook on a wooden desk. The laptop is open, showing its keyboard and trackpad. In the foreground, an open notebook with a dark cover and white pages lies flat, with a black pen resting on its right page. The text "Once logged in and you are done" is overlaid in white on the laptop's keyboard area.

Once logged in and you are
done

A top-down view of a wooden desk. In the top right corner, there is a small green succulent in a dark pot. To its right, the corner of a silver laptop is visible, showing the keyboard. In the center of the desk, a pair of black-rimmed glasses lies horizontally. In the bottom right corner, there is a white ceramic cup filled with dark coffee, with a yellow handle. The wood grain of the desk is clearly visible.

Let's start our first project

Requirements

1. Git
2. Python

Azure WebApp

Clone the repository
'azure_cloud' from my git

Install the dependencies and
run the app in your local
drive



Azure WebApp

Demo

Create a Deployment User

```
az webapp deployment user set
```

```
az webapp deployment user set --user-name  
<username> --password <password>
```


Create a Resource Group

```
az group create
```

```
az group create --name myResourceGroup --location  
"West Europe"
```

Create an Azure App Service plan

```
az group create
```

```
az appservice plan create --name myAppServicePlan --  
resource-group myResourceGroup --sku FREE
```


Create a WebApp in Azure

```
az webapp create --resource-group myResourceGroup --  
plan myAppServicePlan --name <app_name> --runtime  
"python|3.4" --deployment-local-git
```

Each of the above commands gives you a JSON format results for the status of execution

Create a WebApp in Azure

```
az webapp create --resource-group myResourceGroup --plan  
myAppServicePlan --name <app_name> --runtime  
"python|3.4" --deployment-local-git
```

Local git is configured with url of

'https://<username>@<app_name>.scm.azurewebsites.net/<app_name>.git'

```
{  
  "availabilityState": "Normal",  
  "clientAffinityEnabled": true,  
  "clientCertEnabled": false,  
  "cloningInfo": null,  
  "containerSize": 0,  
  "dailyMemoryTimeQuota": 0,  
  "defaultHostName": "<app_name>.azurewebsites.net",  
  "deploymentLocalGitUrl":  
    "https://<username>@<app_name>.scm.azurewebsites.net/<app_name>.git"
```

This web site is running Python 3.4.1

There's nothing here yet, but Microsoft Azure makes it simple to publish content with [GIT](#), [FTP](#) or your favorite development tool such as [Visual Studio](#), [Visual Studio Online](#) or [WebMatrix](#)

Tell me more



Deployment

A top-down view of a wooden desk. In the top right corner, there is a small green succulent in a dark pot. To its right, the corner of a silver laptop is visible, showing the keyboard. Below the laptop, a pair of black-rimmed glasses lies on the desk. In the bottom right corner, there is a white ceramic cup filled with dark coffee, with a yellow handle. The desk surface is made of light-colored wood with a prominent grain pattern.

Now you have a running app both at your client side as well as on Azure

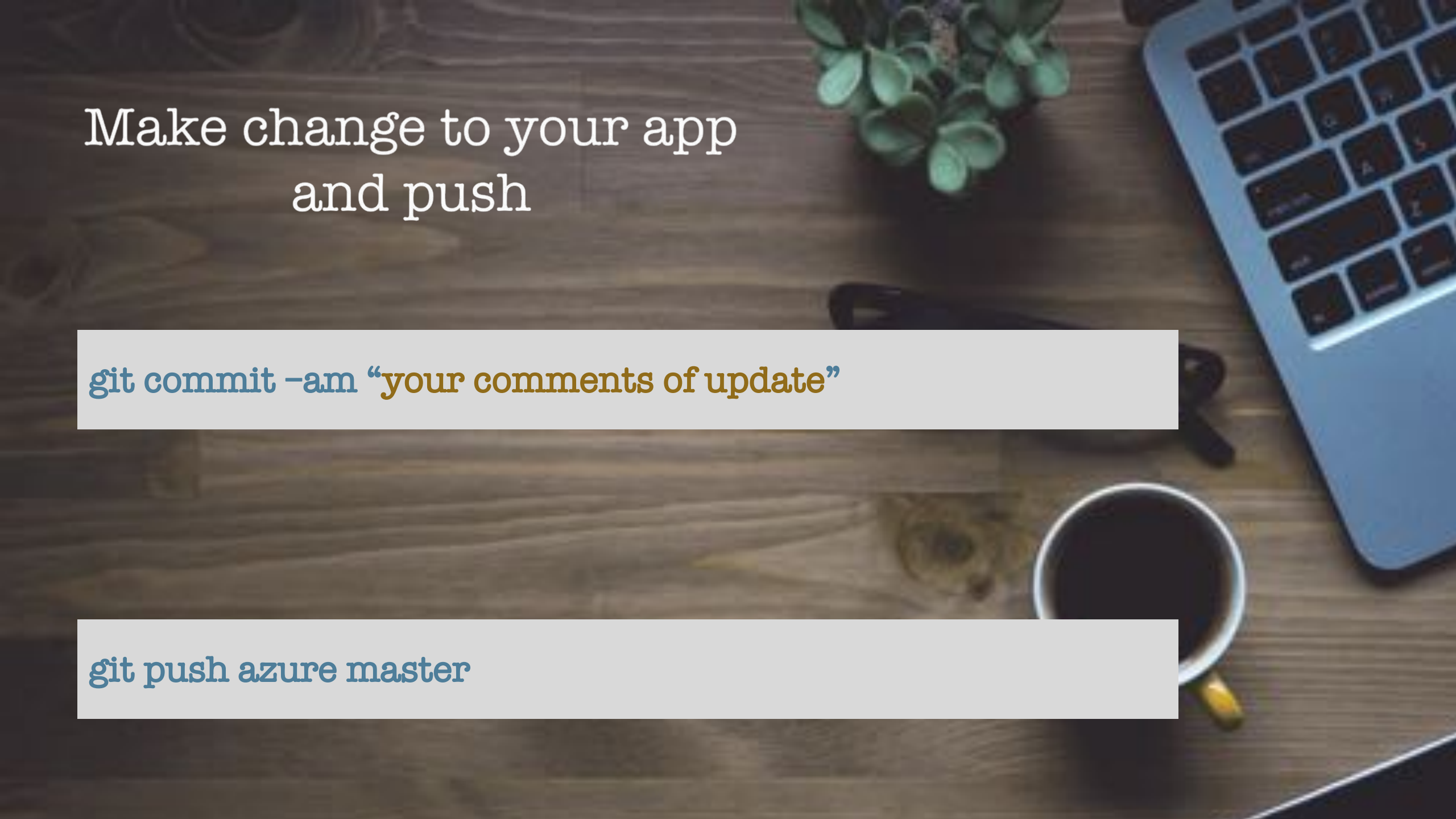
Push your local webapp to cloud using git

Push the webapp to Azure

```
git remote add azure <deploymentLocalGitUrl-from-create-  
step>
```

```
git push azure master
```

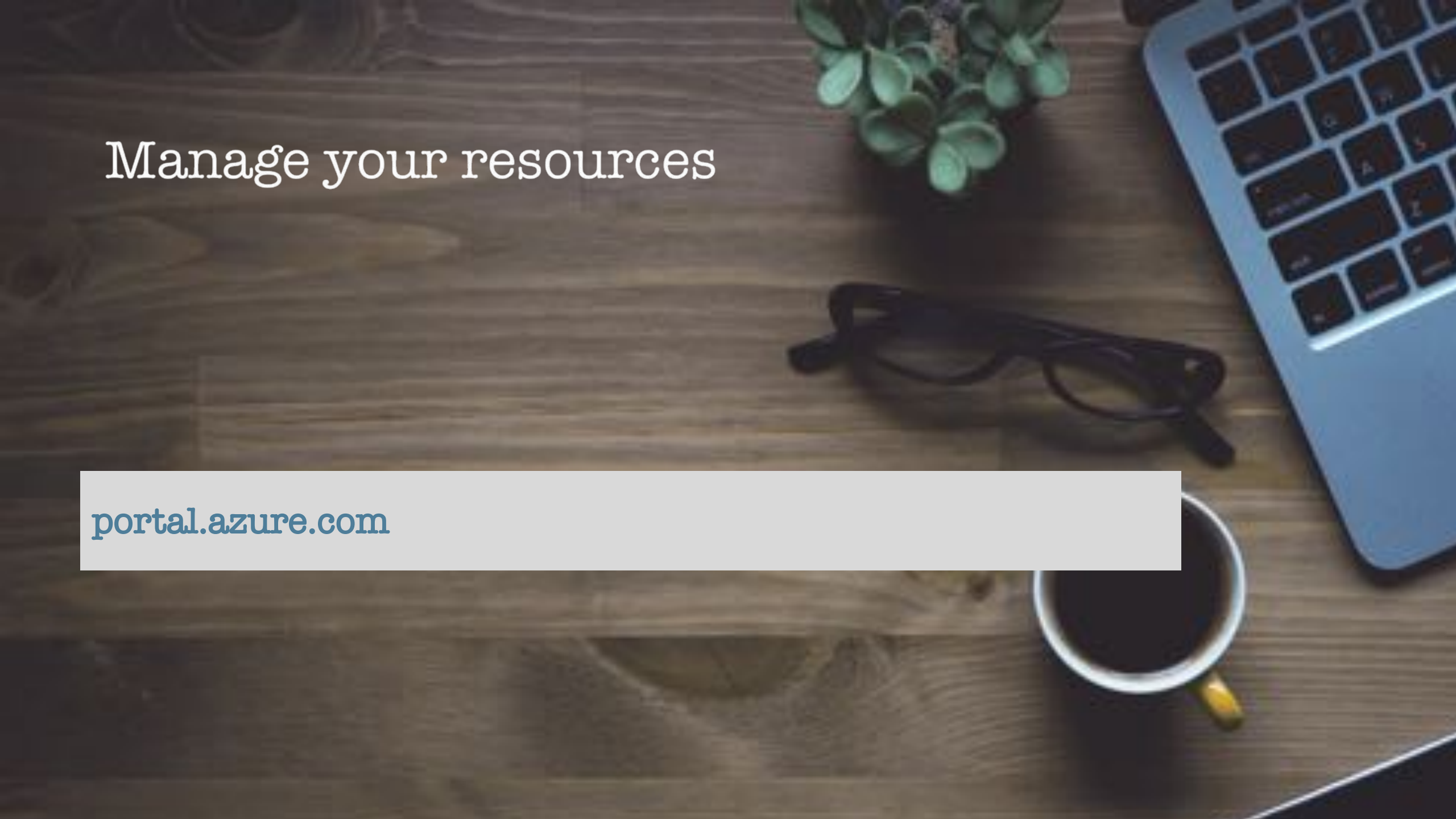
```
http://<app_name>.azurewebsites.net
```


A top-down view of a wooden desk. In the top right corner, there is a small potted plant with green, rounded leaves. Next to it is a silver laptop, partially visible, showing its keyboard. Below the plant and laptop, a pair of black-rimmed glasses lies on the desk. In the bottom right corner, there is a white cup filled with dark coffee, with a yellow handle. The background is a light-colored wooden surface with a visible grain.

Make change to your app and push

```
git commit -am "your comments of update"
```

```
git push azure master
```

A top-down view of a wooden desk. In the top right corner, a silver laptop is partially visible. Below it, a pair of black-rimmed glasses lies horizontally. To the left of the glasses is a small green succulent in a dark pot. In the bottom right corner, a white mug filled with dark coffee sits on the desk. The background is a light-colored wooden surface with a visible grain.

Manage your resources

portal.azure.com

- Create a resource
- All services
- Overview
- Dashboard
- All resources
- Resource groups
- App Services
- Function Apps
- SQL databases
- Azure Cosmos DB
- Virtual machines
- Load balancers
- Storage accounts
- Virtual networks
- Azure Active Directory
- Monitor
- Advisor
- Security Center
- Cost Management + Billing
- Help + support

Dashboard

[New dashboard](#) [Refresh](#) [Download](#) [Edit](#) [Share](#) [Full screen](#) [Close](#) [Reset](#)All resources
All subscriptions

Refresh

	cloudlinux076	App Service
	cloudlinux076cloudlinux076	Storage account
	cloudlinux076	App Service
	cloudlinux076	App Service
	myAppServicePlan	App Service plan



Service Health



Overview

Azure getting started made easy!



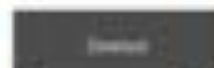
Launch an app of your choice on Azure in a few quick steps

[Create DevOps Project](#)

Quickstart tutorials

**Windows Virtual Machines** (2)
Provision Windows Server, SQL Server, SharePoint VMs**Linux Virtual Machines** (2)
Provision Ubuntu, Red Hat CentOS, SUSE Linux VMs**App Service** (2)
Create Web Apps using JSP, Java, Node.js, Python, PHP**Functions** (2)
Produce events with a serverless code architecture**SQL Databases** (2)
Managed relational SQL Databases as a Service

Get started



Get started



Get started



+ Create a resource

All services

Favorites

Dashboard

All resources

Resource groups

App Services

Function Apps

SQL databases

Azure Cosmos DB

Virtual machines

Load balancers

Storage accounts

Virtual networks

Azure Active Directory

Monitor

Advisor

Dashboard

+ New dashboard

Upload

Download

Edit

Share

Full screen

Clone

Delete

All resources
ALL SUBSCRIPTIONS

Refresh

	clouddemo2018	App Service
	cs2fd44bfaz23f8dx44d8lva7b	Storage account
	democloud8b	App Service
	latestdemo123	App Service
	myAppServicePlan	App Service plan

Azure getting started made easy!

Launch an app of your choice
on Azure in a few quick steps

Create DevOps Project

Quickstart tutorials



Windows Virtual Machines

Provision Windows Server, SQL Server, SharePoint VMs



Linux Virtual Machines

Provision Ubuntu, Red Hat, CentOS, SUSE, CoreOS VMs



App Service

Create Web Apps using .NET, Java, Node.js, Python, PHP



Functions

Process events with a serverless code architecture



SQL Database

Managed relational SQL Database as a Service



Service Health



Marketplace

testerdemo

Deleted

testercoud1

Deleted

testercoud

Deleted

Search (Ctrl+F)

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

DEPLOYMENT

- Quickstart
- Deployment credentials
- Deployment slots
- Deployment options
- Deployment Center (Preview)

SERVICES

- Application settings
- Authentication / Authorization
- Application Insights
- Managed service identity (Preview)

Browse Start Stop Restart Delete Get publish profile Reset publish profile

Stopped

Resource group (change)
myResourceGroup1

Status
Stopped

Location
West Europe

Subscription (change)
Free Trial

Subscription ID
[REDACTED]

URL

https://clouddemo2018.azurewebsites.net

App Service plan/pricing tier

myAppServicePlan (Free: D Small)

Git/Deployment username

jean

Git clone url

https://jean@clouddemo2018.azurewebsites.net:443/

FTP hostname

ftp://www-prod-am2-089.ftp.azurewebsites.windows.net



Diagnose and solve problems

Our self-service diagnostic and troubleshooting experience helps you identify and resolve issues with your web app.



Application Insights

Application Insights helps you detect and diagnose quality issues in your apps, and helps you understand what your users actually do with it.



App Service Advisor

App Service Advisor shows the App Service platform priority and impact to you.

Http Sox



Data In



Data Out

