# nimble

# Azure for Absolute Beginner

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Growth Session #26 - July 25-26 2019

# Intro

- Brief Introduction to Azure.

- The first impression and the frustrating.

- Ruby on Rails on Azure!

- The certification path.

- The next step.

- The conclusion.

# Brief Introduction to Azure.

- Azure is a cloud computing platform developed by Microsoft.
- Azure has a lot of services (100+ services)
- Each service can divided into 3 categories
  - IaaS
  - PaaS
  - SaaS

# Brief Introduction to Azure.

- You can use the Azure services via

  - Azure Portal

  - Azure CLI

  - Azure PowerShell

  - SDK (.NET)

- Azure uses subscription for the payment (You Pay as You Go)

# Brief Introduction to Azure.

The basic services you must known as a beginner:

- ○ Azure VM

- ○ Azure Web App

- ○ Azure VNET

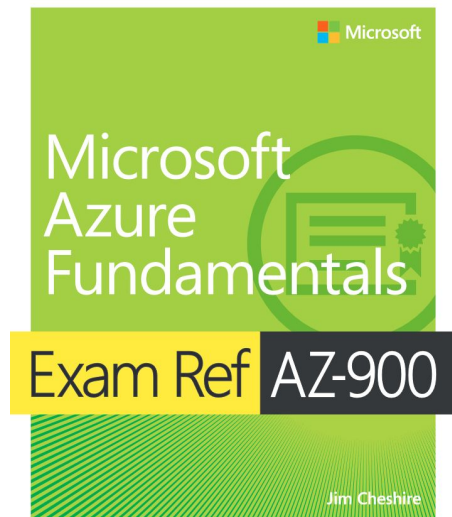- ○ Azure AD (This is very important in my opinion)

# The first impressions and the frustrating parts.

The first impressions:

There are a lot of documentation, courses and books (always up-to-date and managed by Microsoft directly):

a. Azure Documentation

b. Microsoft Learn

c. Microsoft Press

I took one course and bought the exam book too.

# The first impressions and the frustrating parts.

The first impressions (continue):

- You will get a free subscription after you register valid for one month and worth $200. You can play with any service (If you want) without charges to your credit card.
- The Azure Portal UI looks amazing and easy to understand.
- Cross-Platform CLI.
- Microsoft has a ton of MVP users and marketing providing a lot of real world example or cookbook e.g. Infographic about Azure Design Pattern, Git repo for the enterprise large scale application.

# The first impressions and the frustrating parts.

The frustrating parts:

- Sometimes, some services are slow and not smooth enough e.g. renewing the subscription from expired to pay-as-you-go, creating a new VM or deleting some resources.

- Azure provides a link in some services to tell you about "Hey you cannot do that, you need to perform x, y and z before" but the link brings you to a place that is not helpful e.g. Create a new Azure AD and try to delete it immediately. You will face a big issue. Trust me. :p

# The first impressions and the frustrating parts.

The frustrating parts (continue):

- The lack of consistency of the documentation with CLI examples e.g. some services provide examples with Azure PowerShell and some services provide the example with Azure CLI.

- Azure CLI does not support yet every feature as Azure PowerShell does. There is a lag as it requires to port some features to .NET core from the original .NET. e.g You can not list the "Enterprise Application" that are associated with Azure AD via Azure CLI

# The first impressions and the frustrating parts.

The frustrating parts (continue):

- The subscription process with Azure AD looks really confusing for an absolute beginner like me e.g. I tried to create a new Azure AD and add the subscription to that AD but it does not show anything, no notification to tell you about what happened. The subscription was created but it went under the the default AD instead.

# Ruby on Rails on Azure!

From my little experience, If you are a Ruby developer and need to deploy your app with no headache, Azure is not a good place. Currently, Azure supports Ruby on Rails framework but It does NOT cover 100% what the Ruby developer needed (I will tell you soon)

You can deploy your Rails app in 2 ways (Actually maybe 3):

1. Azure VM
2. Azure Web App (Microsoft container)
3. Azure Web App (Your container) (Did not experiment this feature yet)

# Ruby on Rails on Azure!

Azure VM:

- This is the IaaS service. You need to control everything by yourself.

- You can create a new VM with Ubuntu Linux, update the Linux library and system, install and config the server, install the Ruby version manager, install gem dependencies or everything you need. You must do these everything by yourself.

- With Azure VM, it's OK to deploy your app in this way (especially migrating an old app on premise to the cloud) but if you create a new app, Is there a modern approach to do this? "container"

# Ruby on Rails on Azure!

Azure WebApp:

- Yeah! We live in the container era. This is the modern approach to deploy apps today. The Azure WebApp is a PaaS service. Microsoft will take care of everything for you. You just push your code by following the documentation of the language that Azure WebApp supports.
- If you are a .NET, Python, PHP or Node.js, Azure WebApp is a good starting place for you. If you are Ruby developer. Go to the next slide.

# Ruby on Rails on Azure!

Azure WebApp:

- Microsoft provides the documentation for deploy Rails app tos the Azure WebApp service. BUT....

**IT DOES NOT WORK FOR LATEST RUBY AND RAILS VERSIONS!**

- The Microsoft container for the Ruby sets the bundler version to 1.13.6 even though you want to use the latest Ruby version on 2.5.5.
- This issue breaks the installation process from Bundler that ships with the latest Ruby version.

# Ruby on Rails on Azure!

Reference: https://github.com/Azure-App-Service/ruby/blob/master/base_images/2.5.5/Dockerfile

```
RUN eval "$(rbenv init -)" \
    && export WEBSITES_LATEST_NODE_VERSION="2.5.5" \
    && rbenv install $WEBSITES_LATEST_NODE_VERSION \
    && rbenv rehash \
    && rbenv global $WEBSITES_LATEST_NODE_VERSION \
    && ls /usr/local -a \
    && gem install bundler --version "=1.13.6"\
    && chmod -R 777 /usr/local/.rbenv/versions \
    && chmod -R 777 /usr/local/.rbenv/version
```

# Ruby on Rails on Azure!

Azure WebApp:

I hope the Microsoft Team will fix this soon and improve the Ruby

supported frameworks even beyond than Rails e.g. Sinatra, Hanami

# The certification path

If you are interested in the Azure cloud computing, Microsoft provides a certification path for you (If you need to earn your skills and add some bells and whistles to your resume or linkedin profile)

You can pick the path yourself as:

1. App and Infra (recommended for Developers, Administrators)
2. Data and AI (recommended for Data Scientists)

# The certification path

## Role-based
Technical skills required to perform a job

| | Apps & Infra | Data & AI |
|---|---|---|
| | Azure Solutions Architect | |
| Expert | Azure DevOps Engineer | |
| Associate | Azure Administrator | Azure Data Scientist |
| | Azure Developer | Azure AI Engineer |
| | Azure Security Engineer | Azure Data Engineer |

## Fundamentals
Foundational understanding of technology

Azure Fundamentals


HAPPY FRIDAY
IT IS YOUR DESTINY

# The next step

1. Finish Azure online course.

2. Finish the Exam Book.

3. Register and go to the test center at least in the next month or september or this year LOL.
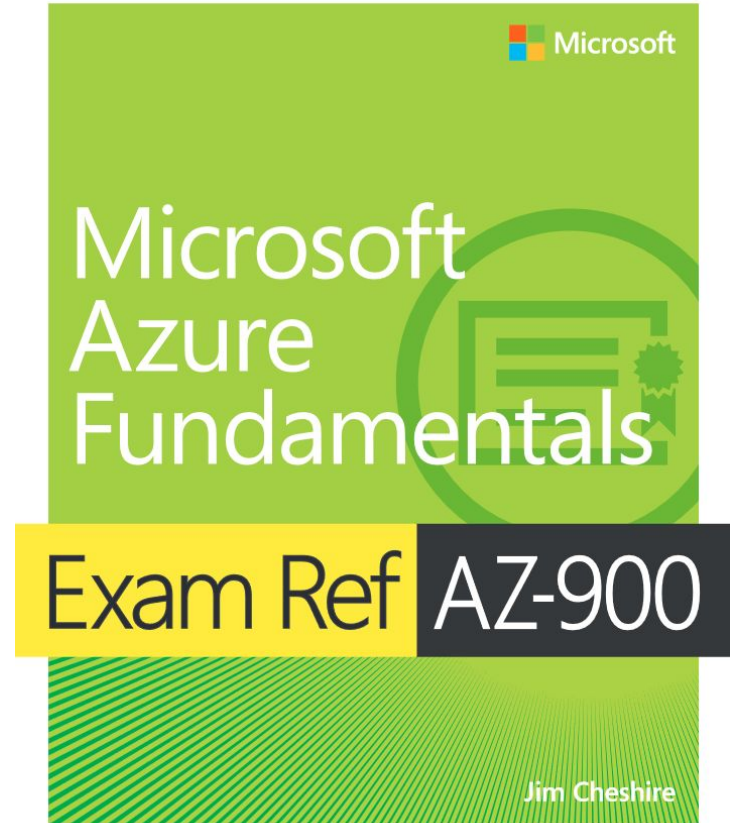
# Conclusion

Azure is good choice to start learning cloud computing:

- It contains tons of resources which are always up-to-date,
- The certifications path is very clear
- The intuitive admin UI makes it easy to understand even if you are a geek developer who use the CLI everyday.
- Azure provides a cross-platform CLI.

The biggest benefit is that Microsoft keep innovating on the Azure cloud platform. I catch up with the latest trends by following the MVP and advocates developers on Twitter (both Western and Japanese).

# Thanks!

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