Managing Your Azure Environment

Sponsors

MODIS

Intelligink

feature[23]

Azure Portal

portal.azure.com

Microsoft Azure ⌄

Search resources

Jon Harris (AZURE UX)
MICROSOFT

Dashboard | ✎ Edit

+ New

📦 Resource groups

▦ All resources

🕐 Recent

🌐 Web Apps

🗄 SQL databases

🖥 Virtual machines (classic)

🖥 Virtual machines

Windows Azure MSDN - Visual Studio Ultimate
MONETARY CREDIT

CREDIT LEFT
111.25 USD

DAYS LEFT
25

Service health
MY RESOURCES

CPU percentage today
AZUREEMUJENKINS

Edit

100%

80%

60%

40%

20%

0%

NOV 22   12 PM

CPU PERCENTAGE TODAY

Database Size
PORTALFXANALYTICS

5.74%

CURRENT
15.42 GB
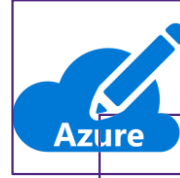
THRESHOLD
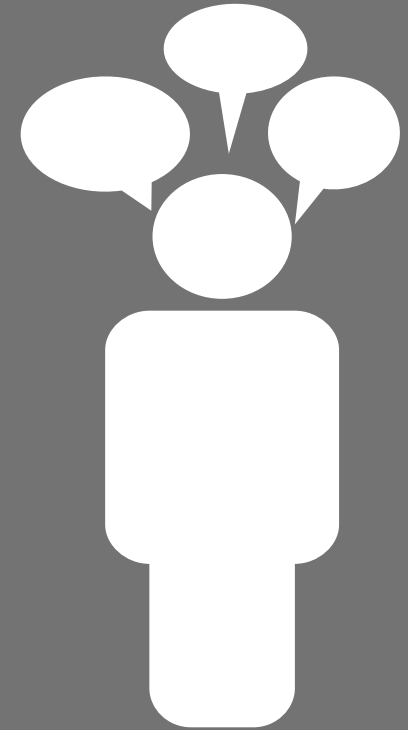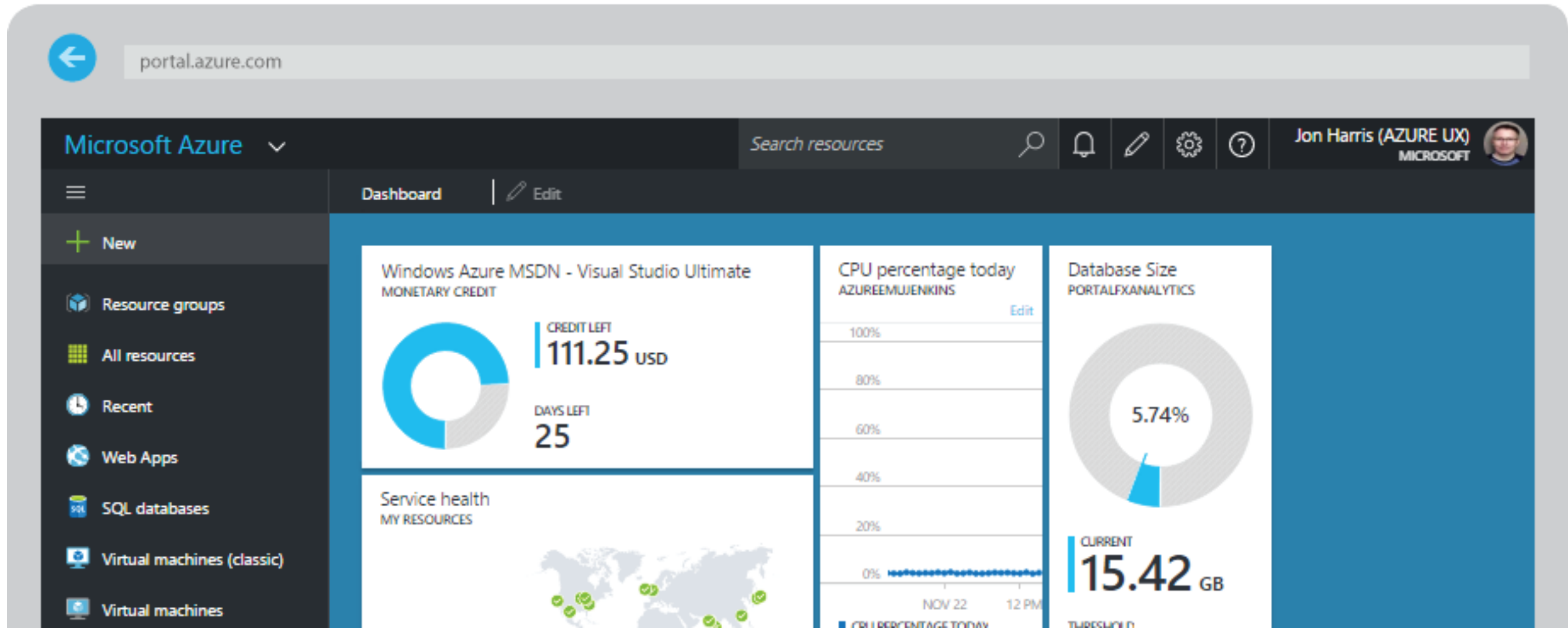
Key Capabilities

Comprehensive Marketpalce

- Browse thousands of items from Microsoft and other vendors that can be purchased and/or provisioned

Scalable Experience

- Easy to find the resources you care about and perform various management operations

Consistent Management

- Manage Azure's wide variety of services through a consistent way of exposing settings, actions, and much more
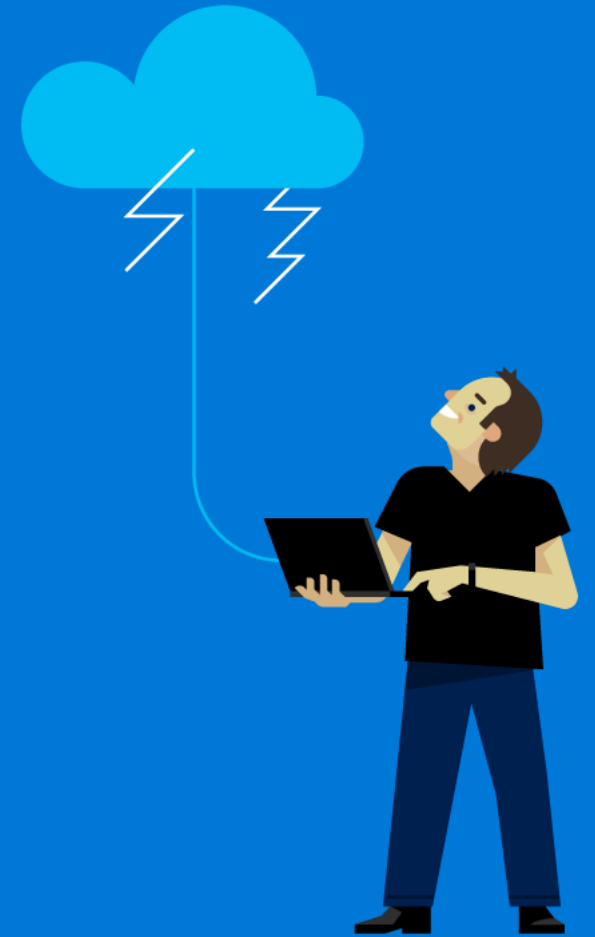
Personal Experience

- Create a customized start screen that shows you the information you want to see when you log in

Demo
Create a VM in the Portal

Azure PowerShell

Azure PowerShell provides a set of cmdlets that use the Azure Resource Manager model for managing your Azure resources.

Installation & Updates

```
PS C:\> # Install the Azure Resource Manager modules from the PowerShell Gallery
PS C:\> Install-Module AzureRM


PS C:\> Update-Module AzureRM –Force


Installing package 'AzureRM'
    Installing dependent package 'AzureRM.AnalysisServices'
    [ooooo          ]


PS C:\> Import-Module AzureRM
```

Versioning

```
PS C:\> Get-Module AzureRM -list | Select-Object Name,Version,Path


Name    Version Path
----    ------- ----
AzureRM 3.8.0   C:\Program Files\WindowsPowerShell\Modules\AzureRM\3.8.0\AzureRM.psd1
AzureRM 1.6.0   C:\Program Files\WindowsPowerShell\Modules\AzureRM\1.6.0\AzureRM.psd1
AzureRM 1.3.0   C:\Program Files\WindowsPowerShell\Modules\AzureRM\1.3.0\AzureRM.psd1


PS C:\> Install-Module -Name AzureRM -RequiredVersion 3.7.0


PS C:\> Install-Module -Name AzureRM -RequiredVersion 1.2.9


PS C:\> Import-Module AzureRM -RequiredVersion 1.2.9
```

Interacting

```
PS C:\> Login-AzureRMAccount

PS C:\> # Get subscriptions
PS C:\> Get-AzureRmSubscription

PS C:\> # Select subscription
PS C:\> Select-AzureRmSubscription -SubscriptionName [SubName]

# Get Resource Groups
PS C:\> Get-AzureRmResourceGroup

# Find resources
PS C:\> Find-AzureRmResource -ResourceGroupName [RGName]
```

Interacting (Con't)

```
PS C:\> $loc = 'eastus2' #first set a location
PS C:\> # Check all the publishers
PS C:\> Get-AzureRmVMImagePublisher -Location $loc
```

```
PublisherName                          Location Id
-------------                          -------- --
Microsoft                              eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
microsoft-ads                          eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
Microsoft.Azure.Applications           eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
Microsoft.Azure.Backup.Test            eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
Microsoft.Azure.Compute.Security       eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
Microsoft.Azure.Diagnostics            eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
Microsoft.Azure.Extensions             eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Pr...
```

Interacting (Con't)

```
PS C:\> # Get the publisher offers
PS C:\> Get-AzureRmVMImageOffer -Location $loc -PublisherName
"MicrosoftWindowsServer"


Offer              PublisherName         Location Id
-----              -------------         -------- --
Windows-HUB        MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Providers/Micr...
WindowsServer      MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Providers/Micr...
WindowsServer-HUB  MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc-57fb30549d66/Providers/Micr...
```

Interacting (Con't)

```
PS C:\> # view the SKUS for an offer
PS C:\> Get-AzureRmVMImageSku -Location $loc -PublisherName "MicrosoftWindowsServer"
-Offer "WindowsServer"


Skus                           Offer         PublisherName          Location Id
----                           -----         -------------          -------- --
2008-R2-SP1                    WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2008-R2-SP1-BYOL               WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2012-Datacenter                WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2012-Datacenter-BYOL           WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2012-R2-Datacenter             WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2012-R2-Datacenter-BYOL        WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2016-Datacenter                WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2016-Datacenter-Server-Core    WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2016-Datacenter-with-Containers WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
2016-Nano-Server               WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97da7d2-1dd0-42cd-93bc...
```

Interacting (Con't)

```
PS C:\> # pick an image
PS C:\> Get-AzureRmVMImage -Location $loc -PublisherName "MicrosoftWindowsServer" -
Offer "WindowsServer" -Skus "2012-R2-Datacenter"


Version          FilterExpression Skus               Offer         PublisherName          Location Id
-------          ---------------- ----               -----         -------------          -------- --
4.0.20160617                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20160721                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20160812                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20160915                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20161012                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20161109                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20161214                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.0.20170111                      2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
4.127.20170406                    2012-R2-Datacenter WindowsServer MicrosoftWindowsServer eastus2  /Subscriptions/f97d...
```

Demo
Create a VM with PowerShell
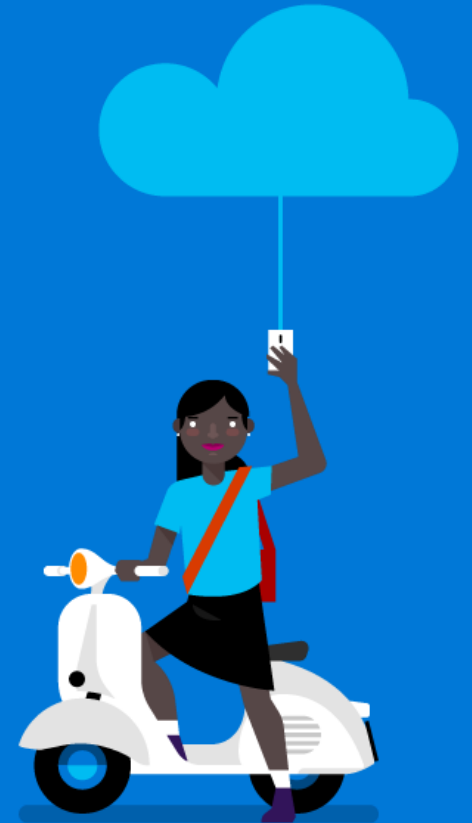
Azure CLI

The Azure CLI 2.0 is Azure's command line experience for managing Azure resources. It can be used on macOS, Linux, and Windows.

Azure CLI 2.0 is optimized for managing and administering Azure resources from the command line, and for building automation scripts that work against the Azure Resource Manager.
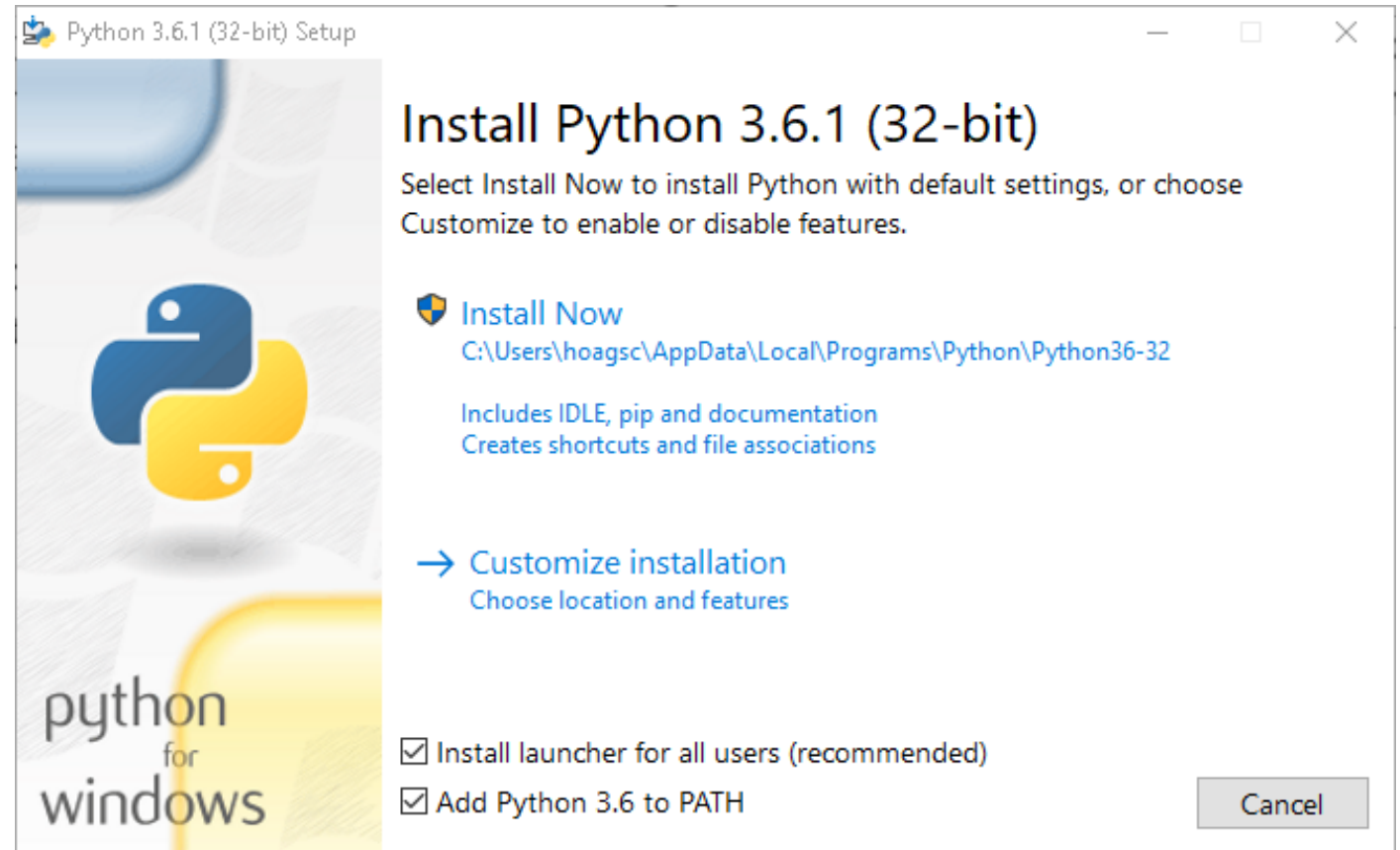
Windows Installation

Visit the Python site and [download Python](download%20Python) for Windows.

Be sure to install the Pip component when you install Python. After the install completes, add Python to your PATH environment variable (the installer will prompt you).

Windows Installation (Con't)

```
C:\> REM Check the version
C:\> python –version

Python 3.6.1


C:\> pip install –user azure-cli
```

* The CLI **az.bat** may be installed in %USE
%USERPROFILE%\AppData\Roaming\Pyt
version (for example, %USERPROFILE%\A
the folder that contains az.bat to your pat

```
C:\> az
```

```
Welcome to Azure CLI!
------------------------
Use `az -h` to see available commands or go to https

Telemetry
---------

The Azure CLI collects usage data in order to improv
The data is anonymous and does not include commandli
The data is collected by Microsoft.

You can change your telemetry settings with `az conf
```
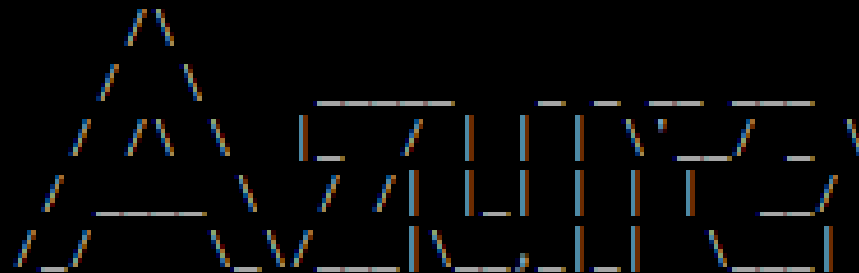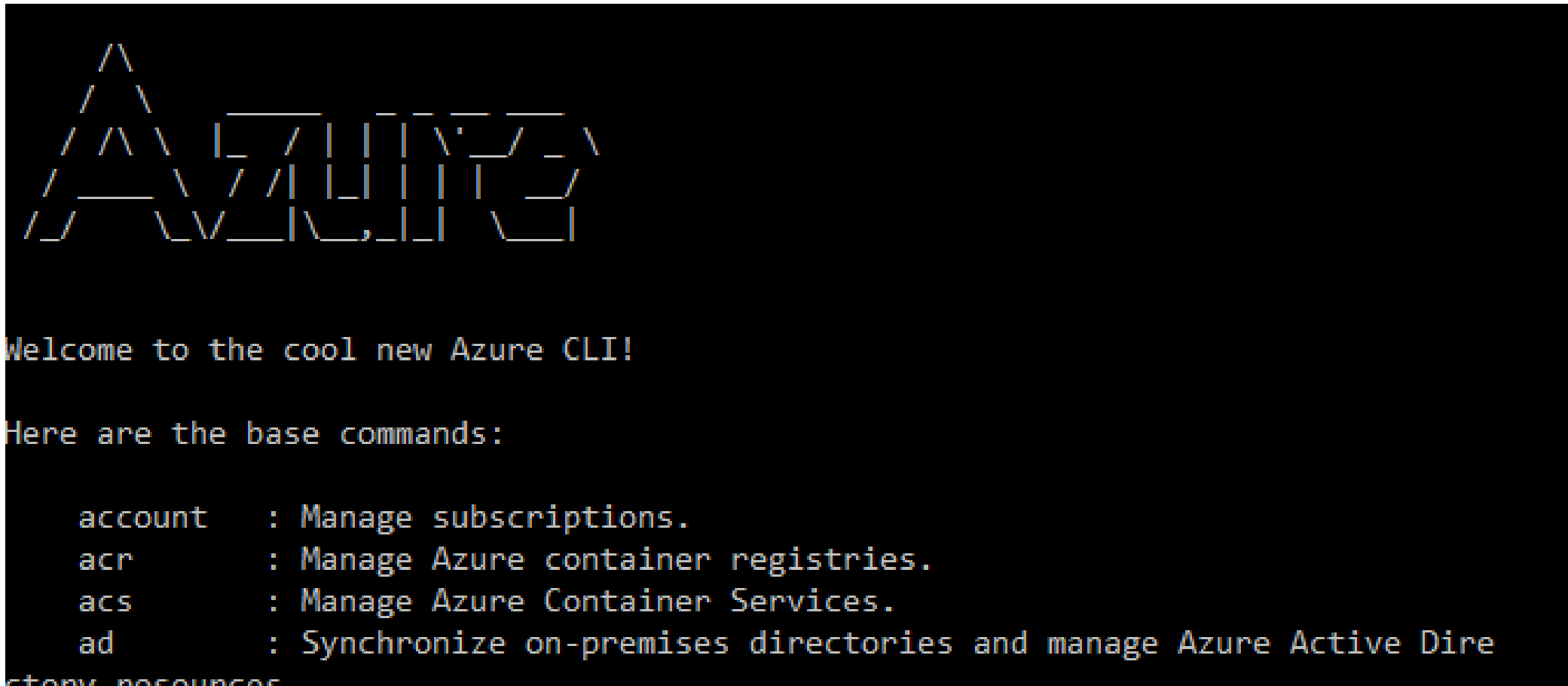
Linux / OS X Installation

```
user@machine:~$ curl -L https://aka.ms/InstallAzureCli | bash
user@machine:~$ exec -l $SHELL
user@machine:~$ az
```

Interacting

```
C:\> az login

C:\> REM Get subscriptions
C:\> az account list
C:\> az account list -output table

C:\> REM Select subscription
C:\> az account set -subscription [SubName]

C:\> REM Get Resource Groups
C:\> az group list
```

Interacting (Con't)

```
C:\> REM Find resources
C:\> az vm list –output table


Name              ResourceGroup      Location
--------------    ---------------    ----------
ATLSPUGCLIENT1    ATLSPUG0417        eastus2
ATLSPUGDC1        ATLSPUG0417        eastus2


C:\> az vm list --query [*].[name,resourceGroup] --out table


Column1           Column2
--------------    -----------
ATLSPUGCLIENT1    ATLSPUG0417
ATLSPUGDC1        ATLSPUG0417


C:\> az vm list --query "[].{RGName:resourceGroup, VMName:name}" --out table
```

Demo
Create a VM with the CLI

You learned how to browse to the portal

You got oriented with the portal UI and learned how to create and browse resources

You learned about the structure or management blades and how you can consistently manage different types of resources

You learned how to create resources with PowerShell

You learned how to create resources with the CLI

You learned how to create resources with a template

TIME FOR QUESTIONS

#jaxcloud   @jaxcloudug

JAX

http://jaxug.cloud   https://jaxcloudug.azurewebsites.net