

Resource groups - Microsoft Azure

https://portal.azure.com/#view/HubsExtension/BrowseResourceGroups

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Microsoft Azure Search resources, services, and docs (G+)

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Home > Resource groups > ...

ULTRA44 Advanced Information Systems - K. Tzerras - J. van Slooten Partnership (ultra4ais.onmicrosoft.com)

+ Create Manage view Refresh Export to CSV Open query Assign tags

Filter for any field... Subscription equals all Location equals all Add filter

Showing 1 to 6 of 6 records. No grouping List view

Name ↑	Subscription ↑↓	Location ↑↓
defaultresourcegroup-itn	Azure subscription 1	Italy North
DefaultResourceGroup-WEU	Azure subscription 1	West Europe
eclipse-che	Azure subscription 1	Italy North
MA_defaultazuremonitorworkspace-itn_italynorth_managed	Azure subscription 1	Italy North
MC_eclipse-che_eclipse-che_italynorth	Azure subscription 1	Italy North
NetworkWatcherRG	Azure subscription 1	West Europe

< Previous Page 1 of 1 Next >

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Type here to search 61°F Mostly cloudy 1:09 PM 3/12/2024

eclipse-che - Microsoft Azure

https://portal.azure.com/#resource/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/overview

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Home > Resource groups > eclipse-che > ...

ULTRA44 Advanced Information Systems - K. Tzerra...

+ Create Manage view Delete resource group Refresh Export to CSV Open query Assign tags

Filter for any field... Type equals all Location equals all Add filter

Showing 1 to 5 of 5 records. Show hidden types No grouping List view

Name ↑	Type ↑	Location ↑
eclipse-che	Kubernetes service	Italy North
MSCI-west europe-eclipse-che	Data collection rule	West Europe
MSProm-italynorth-eclipse-che	Data collection endpoint	Italy North
MSProm-italynorth-eclipse-che	Data collection rule	Italy North
software-machines.online	DNS zone	Global

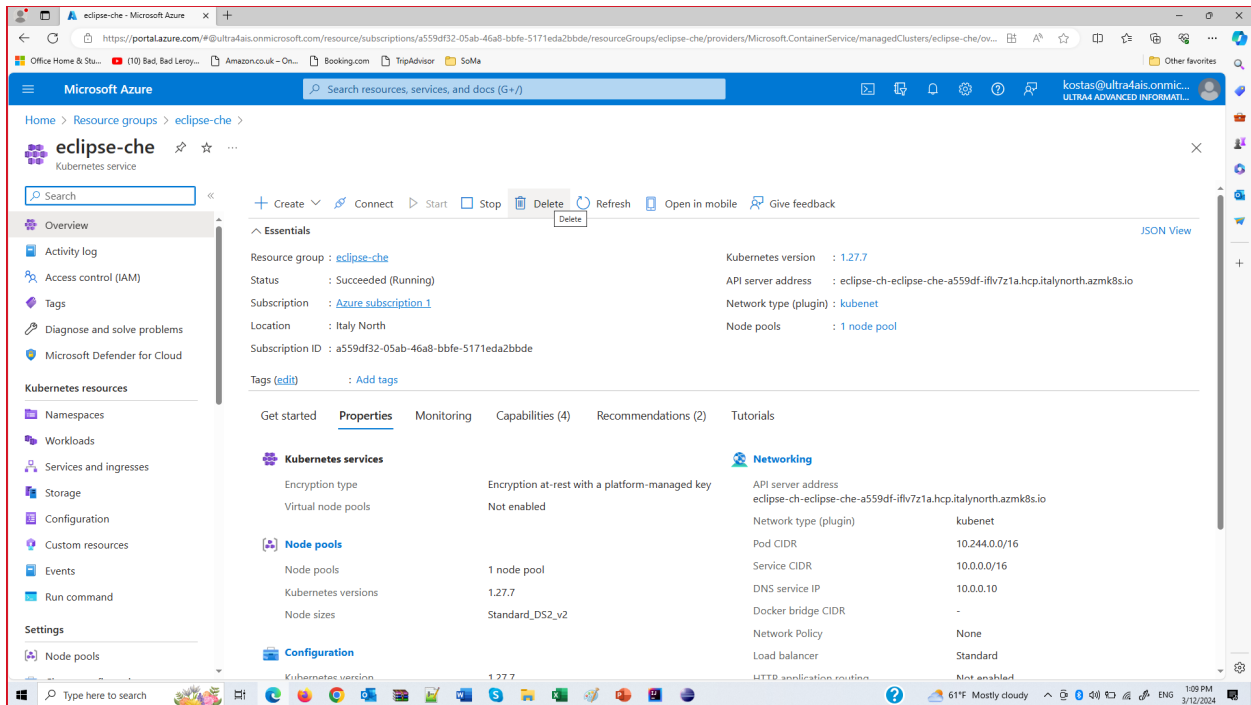
< Previous Page 1 of 1 Next >

Give feedback

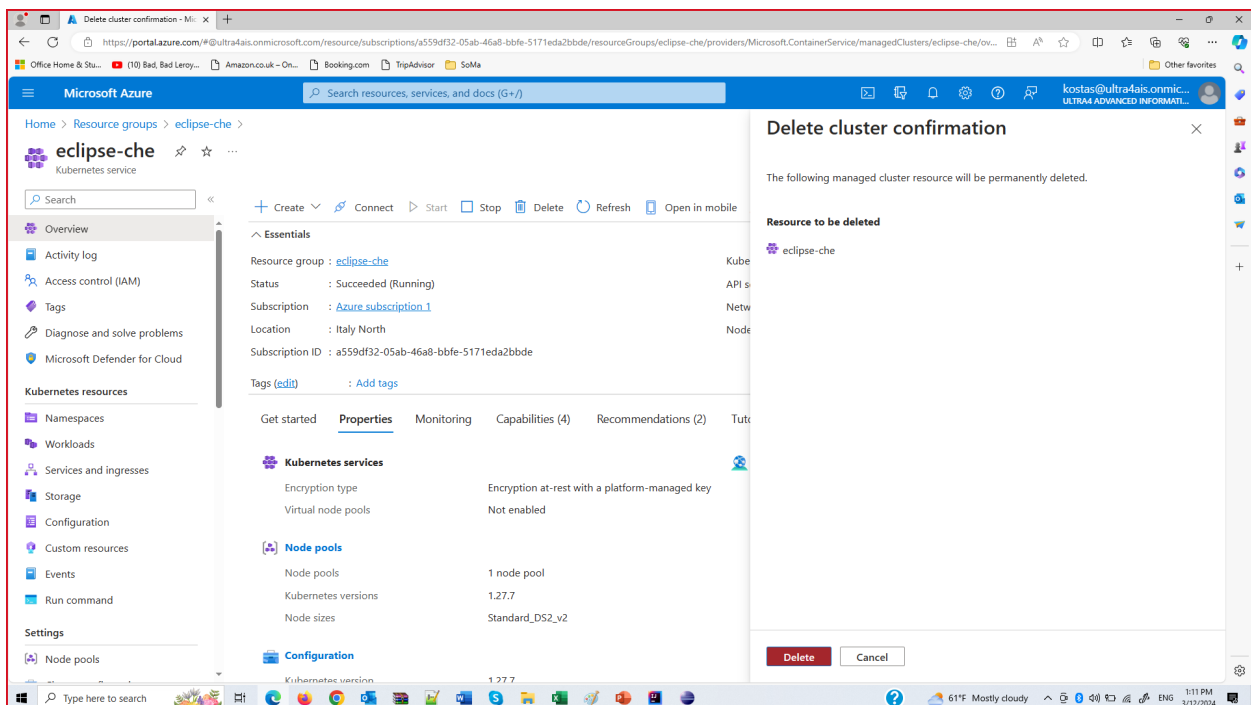
https://portal.azure.com/#resource/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.ContainerService/managedClusters/eclipse-che

Type here to search 61°F Mostly cloudy 1:09 PM 3/12/2024

2. On the **Overview** page we select **Delete**



3. On the **Delete cluster confirmation** page we select **Delete**



Microsoft Azure portal showing the 'Delete cluster confirmation' dialog for the 'eclipse-che' Kubernetes service. The dialog indicates that the resource will be permanently deleted and provides 'Delete' and 'Cancel' options.

Resource to be deleted: eclipse-che

Delete confirmation: Deleting the resource is a permanent action and cannot be undone.

Cluster Details (from background):

- Resource group: eclipse-che
- Status: Succeeded (Running)
- Subscription: Azure subscription 1
- Location: Italy North
- Subscription ID: a559df32-05ab-46a8-bbfe-5171eda2bbde
- Kubernetes version: 1.27.7
- Node pools: 1 node pool
- Node sizes: Standard_DS2_v2

Microsoft Azure portal showing the 'eclipse-che' Kubernetes service details page. A notification at the top right indicates that the managed cluster is being deleted.

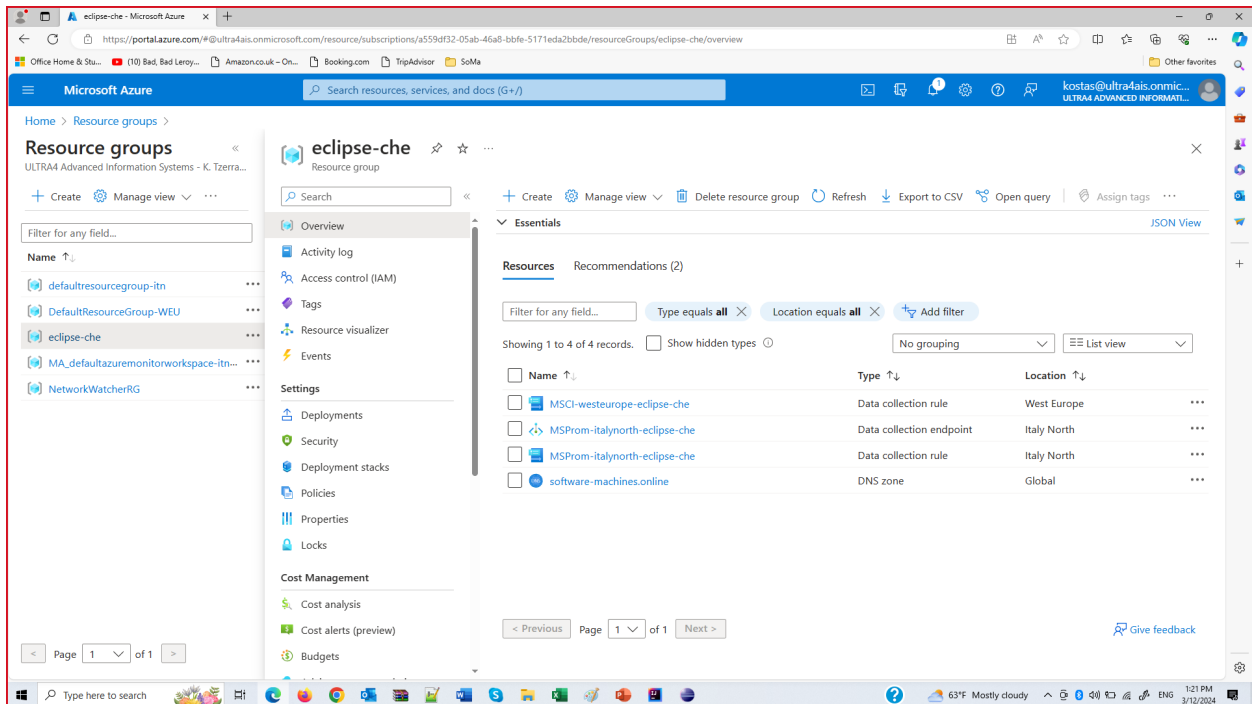
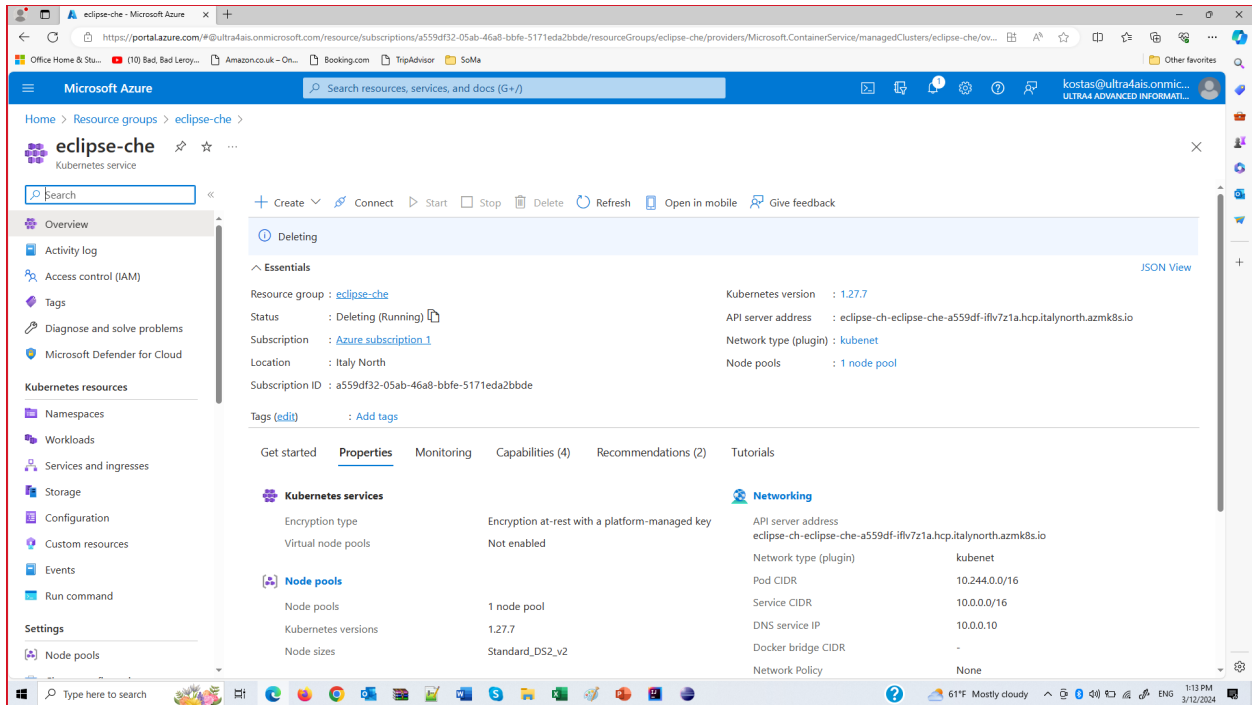
Deleting managed cluster eclipse-che
Deleting Kubernetes managed cluster 'eclipse-che'

Cluster Details:

- Resource group: eclipse-che
- Status: Succeeded (Running)
- Subscription: Azure subscription 1
- Location: Italy North
- Subscription ID: a559df32-05ab-46a8-bbfe-5171eda2bbde
- Kubernetes version: 1.27.7
- Node pools: 1 node pool
- API server address: eclipse-ch-eclipse-che-a559df-ffv7z1a.hcp.italynorth.azmk8s.io
- Network type (plugin): kubenet
- Node pools: 1 node pool

Networking Details:

API server address	eclipse-ch-eclipse-che-a559df-ffv7z1a.hcp.italynorth.azmk8s.io
Network type (plugin)	kubenet
Pod CIDR	10.244.0.0/16
Service CIDR	10.0.0.0/16
DNS service IP	10.0.0.10
Docker bridge CIDR	-
Network Policy	None
Load balancer	Standard
HTTP application routing	Not enabled



The existing AKS cluster setup is now deleted

We remove the service principal

1. We remove the resource group eclipse-che, container service, and all related resources

az group delete --name eclipse-che --yes --no-wait

```
Windows PowerShell
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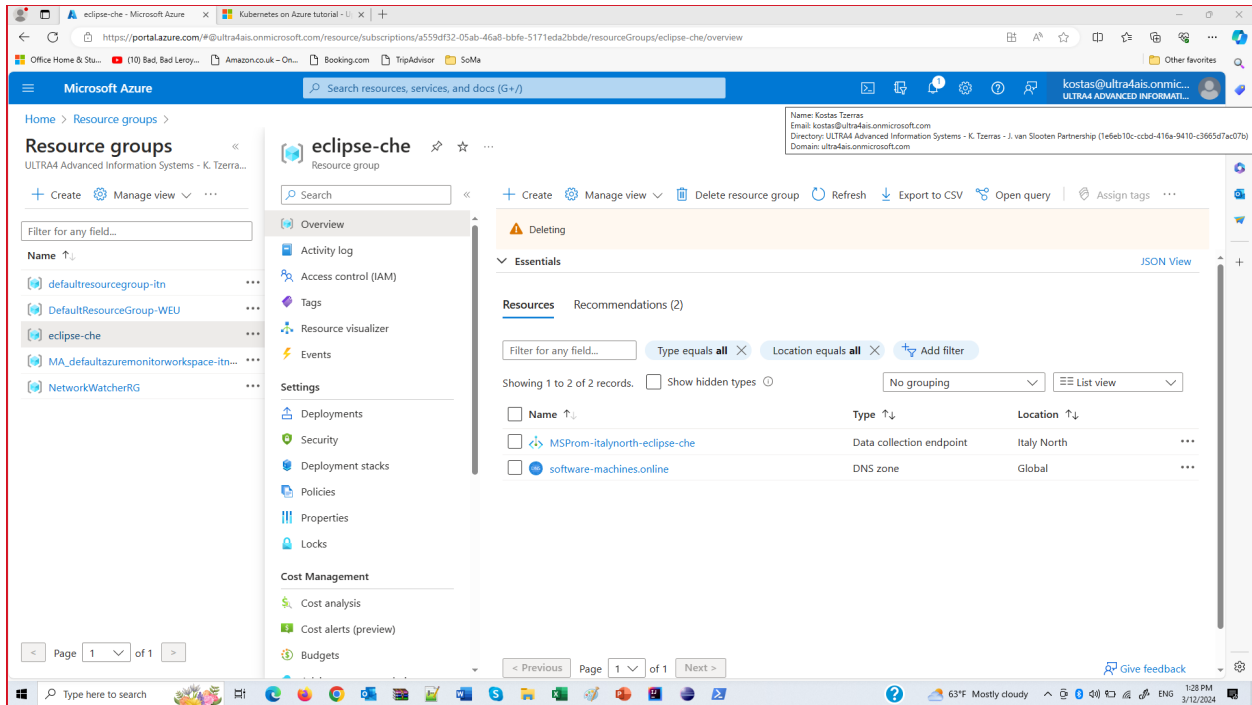
Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Kostas> az group delete --name eclipse-che --yes --no-wait_
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

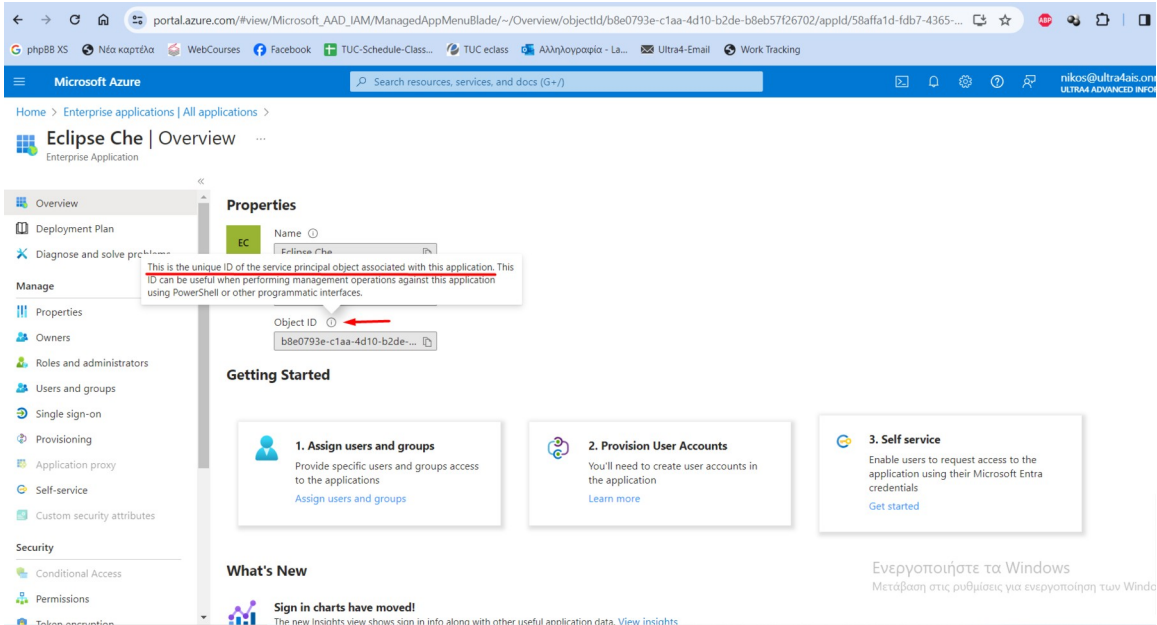
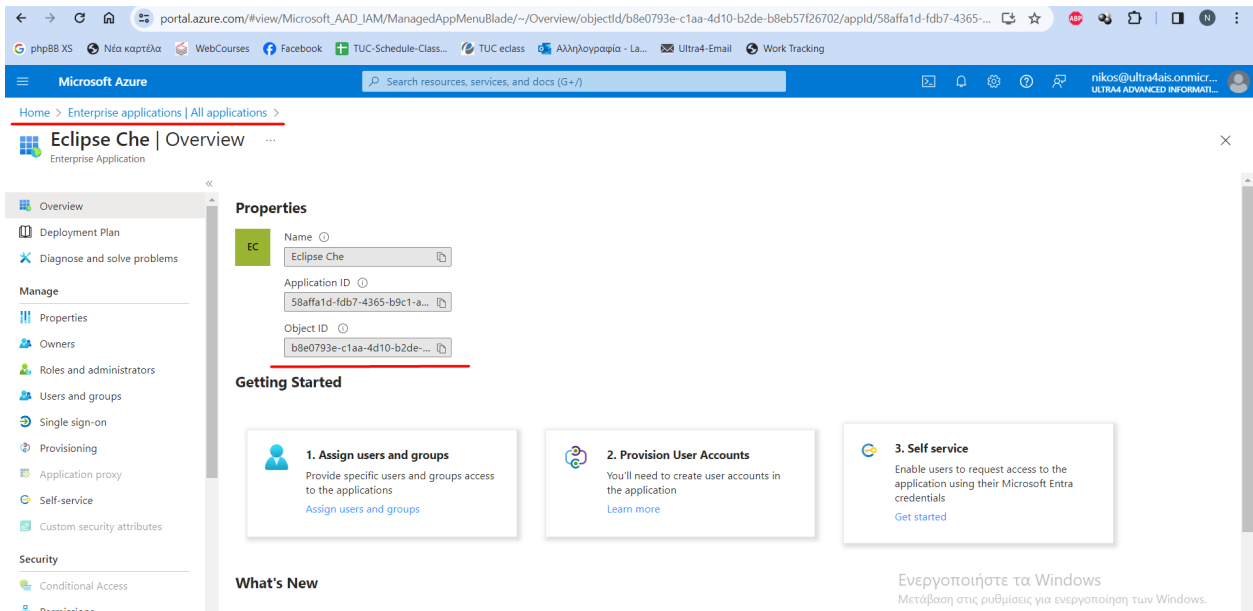
PS C:\Users\Kostas> az group delete --name eclipse-che --yes --no-wait
PS C:\Users\Kostas> █
```



2. We locate the Objectid from Enterprise Applications

The screenshot shows the 'Enterprise applications' page in the Microsoft Azure portal. The 'All applications' view is active, displaying a table of applications. The 'Eclipse Che' application is highlighted with a red box. The table columns include Name, Object ID, Application ID, Homepage URL, Created on, Certificate Expiry, Active Certificate, and Identifier URI. The 'Eclipse Che' row shows an Object ID of 'b8e0793e-c1aa-4d10-b...' and an Identifier URI of '58affa1d-fdb7-4365-b...'.

Name	Object ID	Application ID	Homepage URL	Created on	Certificate Expiry S...	Active Certificate E...	Identifier URI (Enti...
MS User Research	1156c316-bca9-4947-b...	f4b0a265-b441-4c8d-9...	https://ux.microsoft.com	2/23/2024	-	-	f4b0a265-b441-4c8d-9...
EC Eclipse Che	b8e0793e-c1aa-4d10-b...	58affa1d-fdb7-4365-b...		3/20/2024	-	-	58affa1d-fdb7-4365-b...



3. Remove the service principal cert-manager-eclipse-che by using its ObjectID b8e0793e-c1aa-4d10-b2de-b8eb57f26702

```
az ad sp delete --id b8e0793e-c1aa-4d10-b2de-b8eb57f26702
```

```
Windows PowerShell
PS C:\Users\nick1> az ad sp delete --id b8e0793e-c1aa-4d10-b2de-b8eb57f26702
```

```
Windows PowerShell
PS C:\Users\nickl> az ad sp delete --id b8e0793e-c1aa-4d10-b2de-b8eb57f26702
PS C:\Users\nickl>
```

Home > Enterprise applications

Enterprise applications | All applications

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+ New application Refresh Download (Export) Preview info Columns Preview features Got feedback?

View, filter, and search applications in your organization that are set up to use your Microsoft Entra tenant as their Identity Provider.
The list of applications that are maintained by your organization are in application registrations.

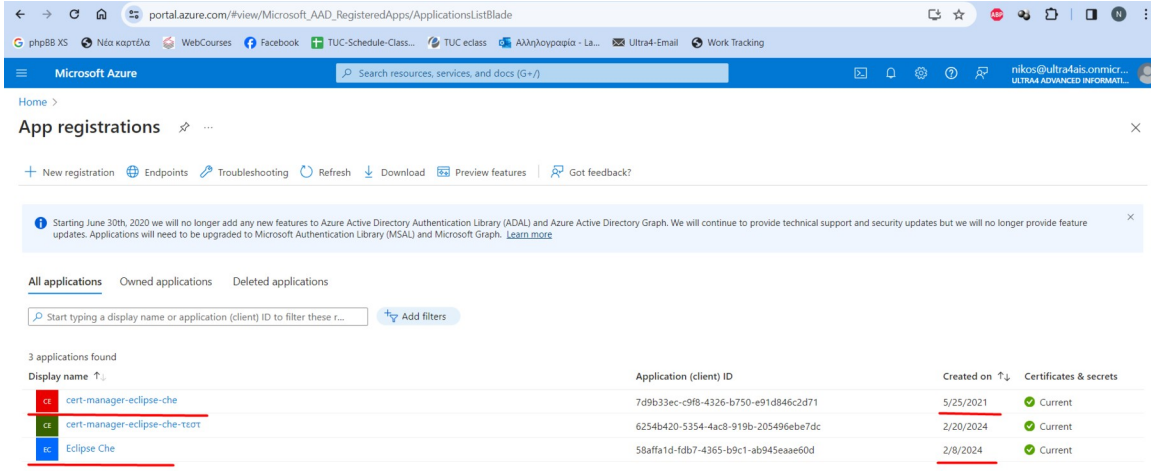
Search by application name or object ID Application type == Enterprise Applications Application ID starts with Add filters

1 application found

Name	Object ID	Application ID	Homepage URL	Created on	Certificate Expiry S...	Active Certificate E...	Identifier URI (Enti...
MS User Research	1156c316-bca9-4947-b...	f4b0a265-b441-4c8d-9...	https://ux.microsoft.com	2/23/2024	-	-	f4b0a265-b441-4c8d-9...

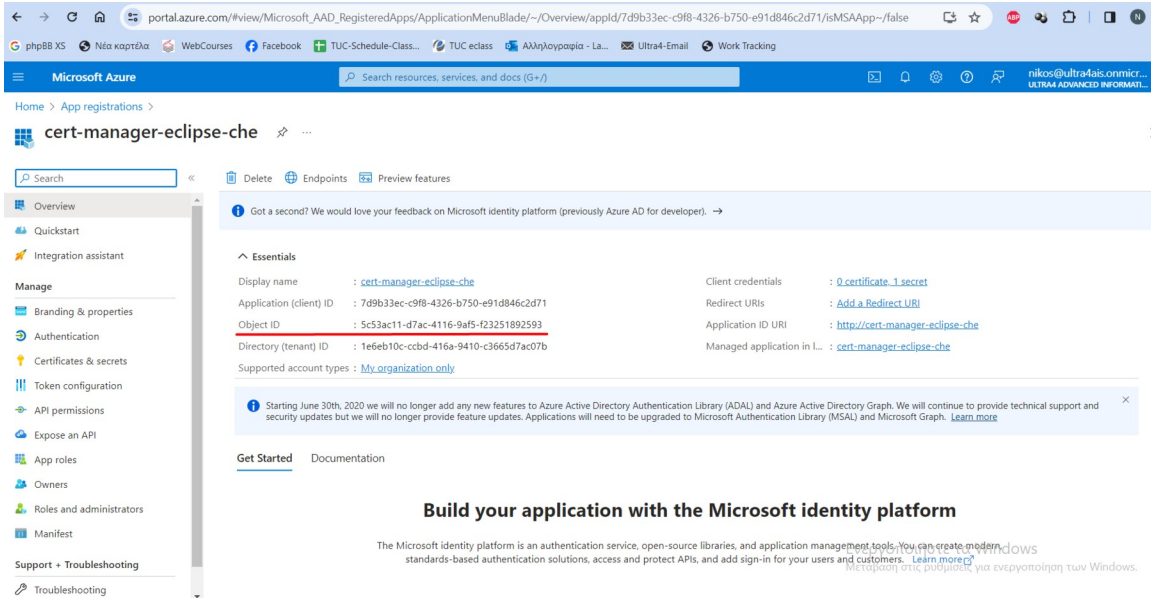
Ενεργοποιήστε τα Windows
Μετάβαση στις ρυθμίσεις για ενεργοποίηση των Windows.

- Even though Microsoft instructions are indicating that following these steps it should be enough to delete our application, we can still locate cert manager service principal and Eclipse Che instances in App Registrations.



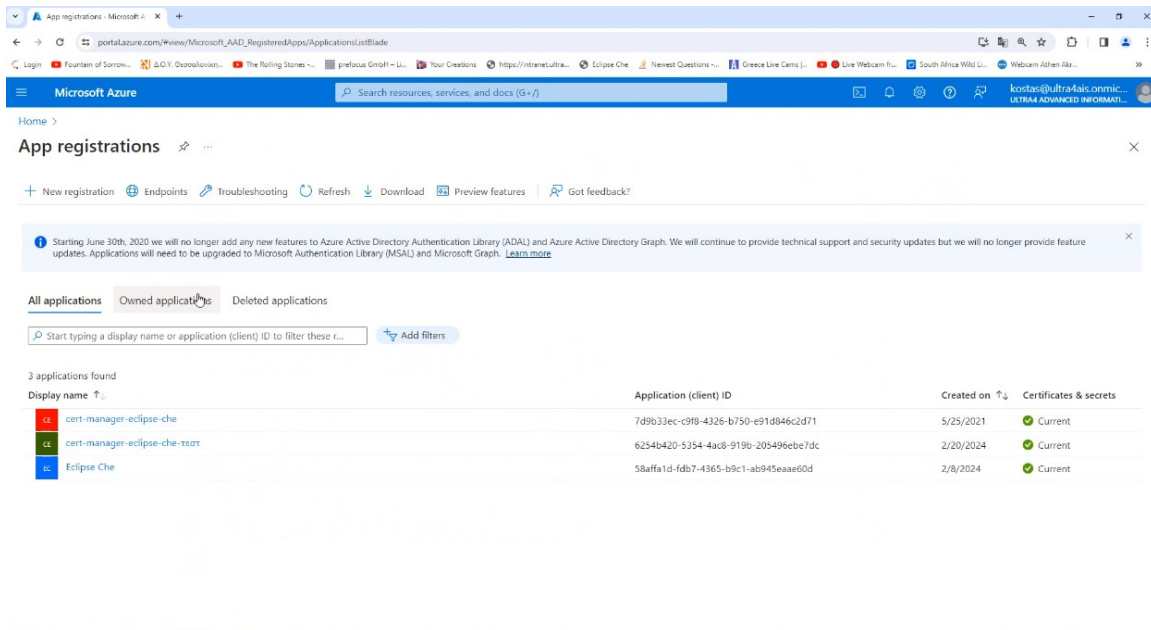
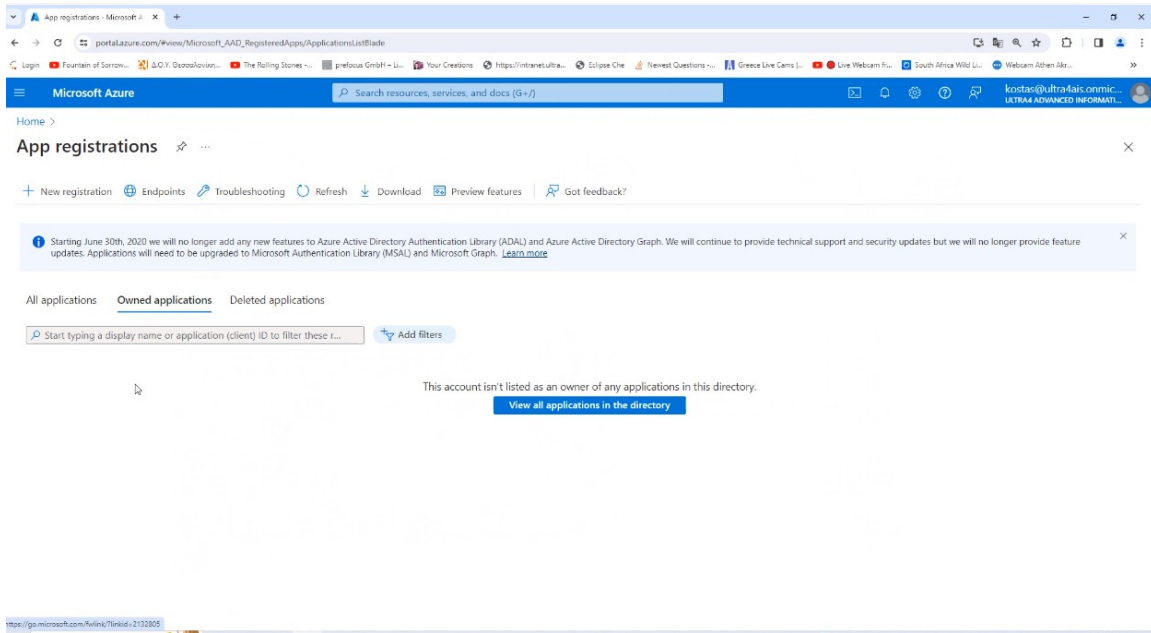
Ενεργοποιήστε τα Windows
Μεταβίση στις ρυθμίσεις για ενεργοποίηση των Windows.

Note: The following Object ID is found every time in the “We will patch it.”



So we decide to delete them also using the Azure Portal

- Deleting existing applications.
The following operations are performed by user : kostas@ultra4ais.onmicrosoft.com



a. Deleting application instance : cert-manager-eclipse-che

App registrations

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure Active Directory Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. [Learn more](#)

All applications Owned applications Deleted applications

Start typing a display name or application (client) ID to filter these ... [Add filters](#)

3 applications found

Display name	Application (client) ID	Created on	Certificates & secrets
cert-manager-eclipse-che	7d9b33ec-c9f8-4326-b750-e91d846c2d71	5/25/2021	Current
cert-manager-eclipse-che-tsrt	6254b420-5254-4a08-919b-205496be7dc	2/20/2024	Current
Eclipse Che	58affa1d-fdb7-4365-b9c1-ab945eaae0d0	2/8/2024	Current

cert-manager-eclipse-che

Overview Endpoints Preview features

Essentials

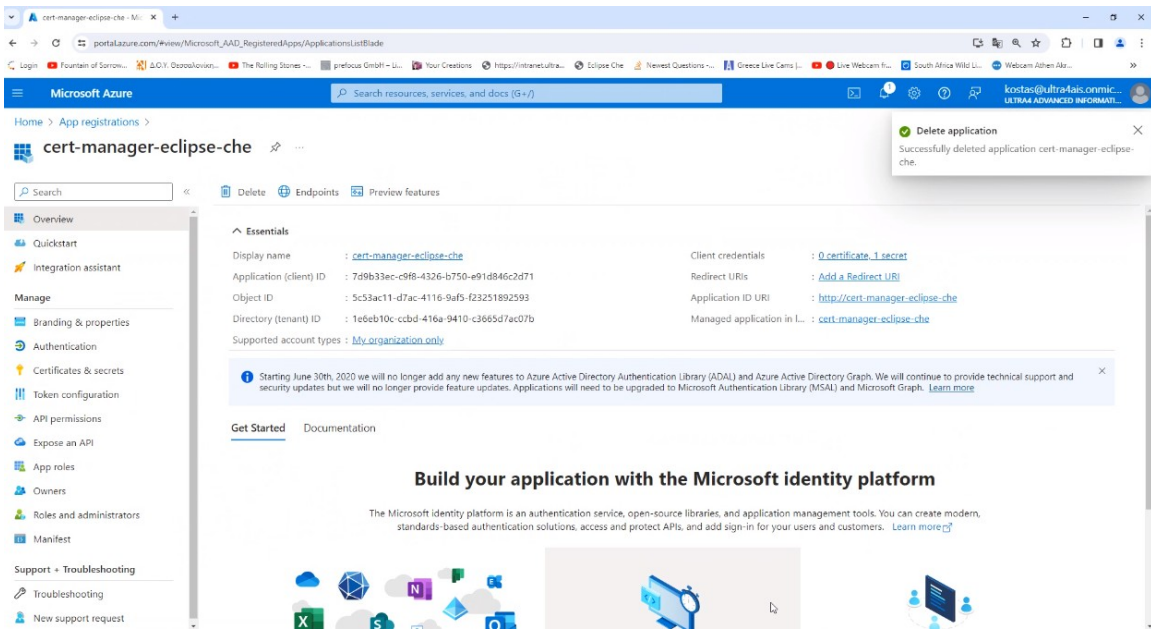
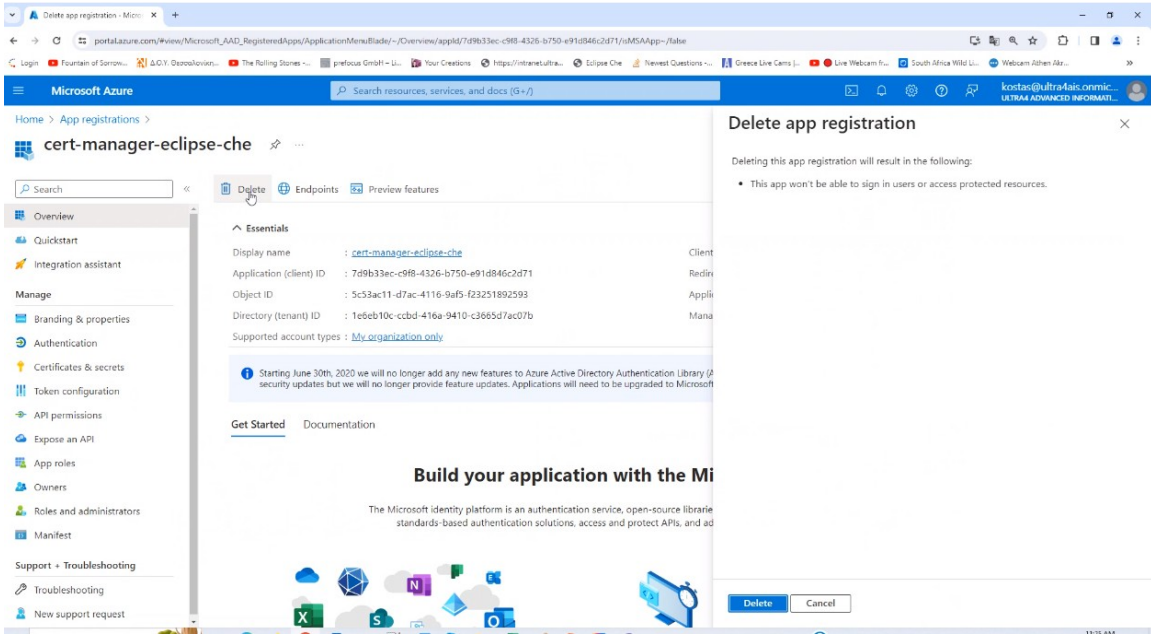
Display name	: cert-manager-eclipse-che	Client credentials	: 0 certificate_1_secret
Application (client) ID	: 7d9b33ec-c9f8-4326-b750-e91d846c2d71	Redirect URIs	: Add a Redirect URI
Object ID	: 5c53ac11-d7ac-4116-9af5-f23251892593	Application ID URI	: http://cert-manager-eclipse-che
Directory (tenant) ID	: 1e5eb10c-ccb4-416a-9410-c3655d7ac07b	Managed application in L...	: cert-manager-eclipse-che

Supported account types: [My organization only](#)

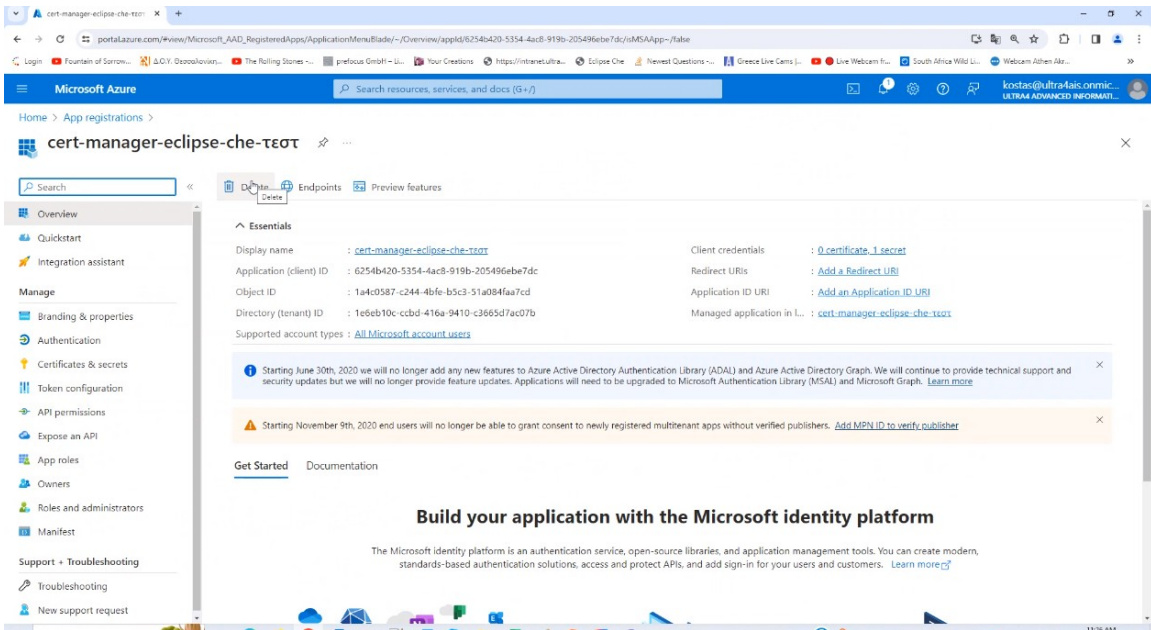
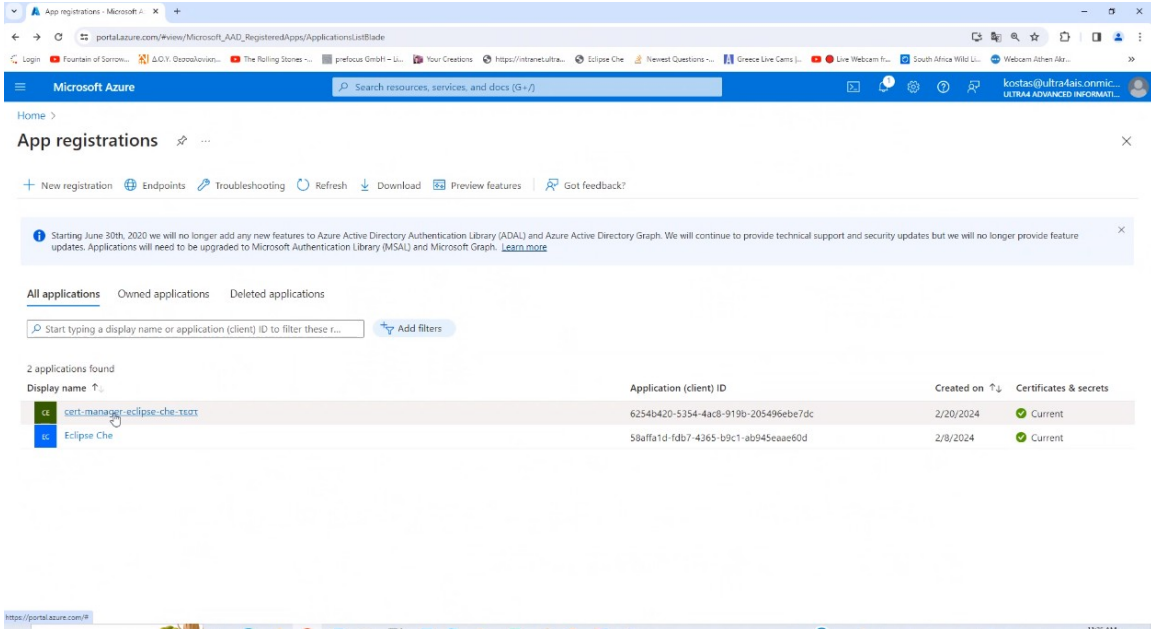
Get Started Documentation

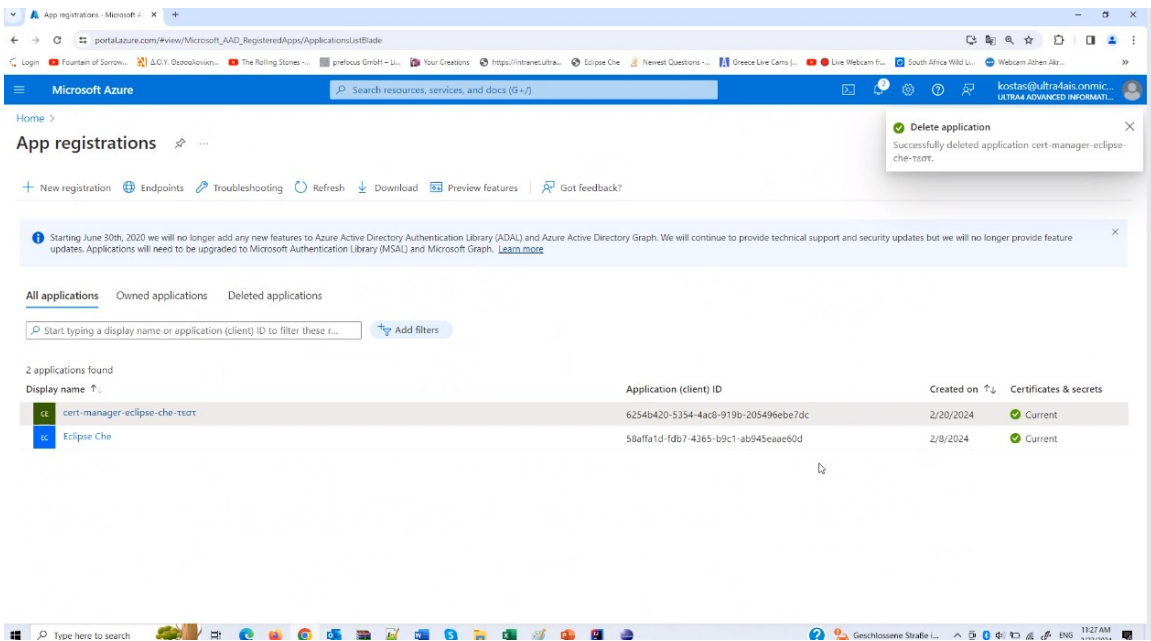
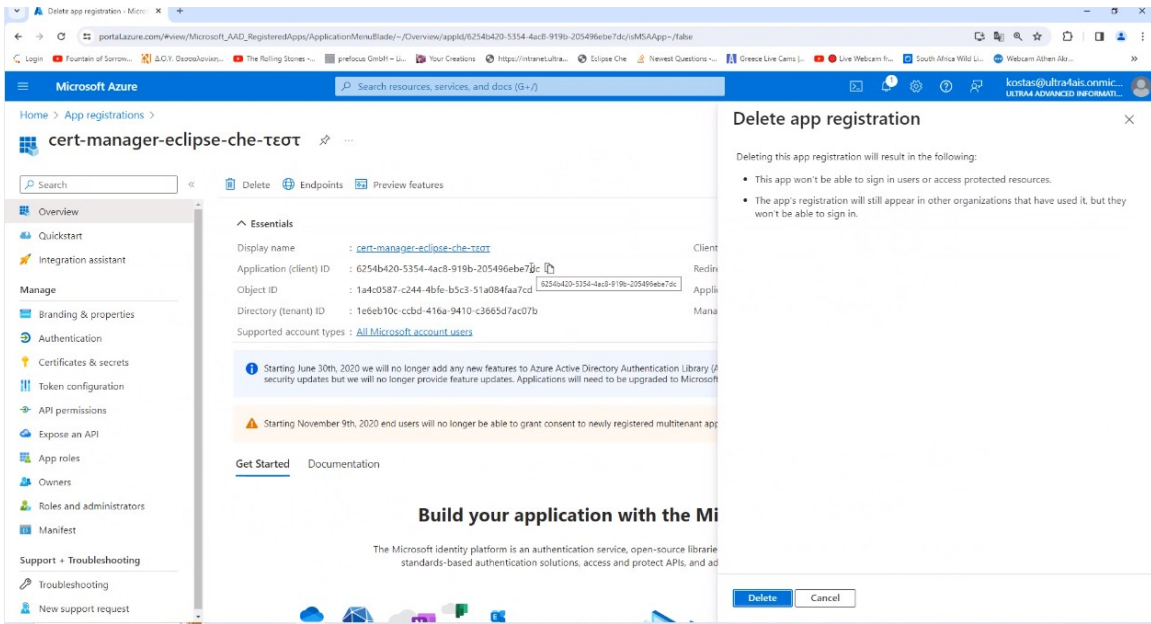
Build your application with the Microsoft identity platform

The Microsoft identity platform is an authentication service, open-source libraries, and application management tools. You can create modern, standards-based authentication solutions, access and protect APIs, and add sign-in for your users and customers. [Learn more](#)



b. Deleting application instance : cert-manager-eclipse-che-тєт





c. Deleting application instance: Eclipse Che

App registrations

Starting June 30th, 2020 we will no longer add any new features to Azure Active Directory Authentication Library (ADAL) and Azure Active Directory Graph. We will continue to provide technical support and security updates but we will no longer provide feature updates. Applications will need to be upgraded to Microsoft Authentication Library (MSAL) and Microsoft Graph. [Learn more](#)

All applications Owned applications Deleted applications

Start typing a display name or application (client) ID to filter these results. Add filters

1 applications found

Display name	Application (client) ID	Created on	Certificates & secrets
Eclipse.Che	58affa1d-fdb7-4365-b9c1-ab945eaae60d	2/8/2024	Current

Delete app registration

Deleting this app registration will result in the following:

- This app won't be able to sign in users or access protected resources.

Essentials

Display name : Eclipse.Che Client

Application (client) ID : 58affa1d-fdb7-4365-b9c1-ab945eaae60d Redir

Object ID : ff69b932-9fb1-4c62-b01f-4432a93bc83d Appli

Directory (tenant) ID : 1e6eb10c-ccbd-416a-9410-c3665d7ac07b Mana

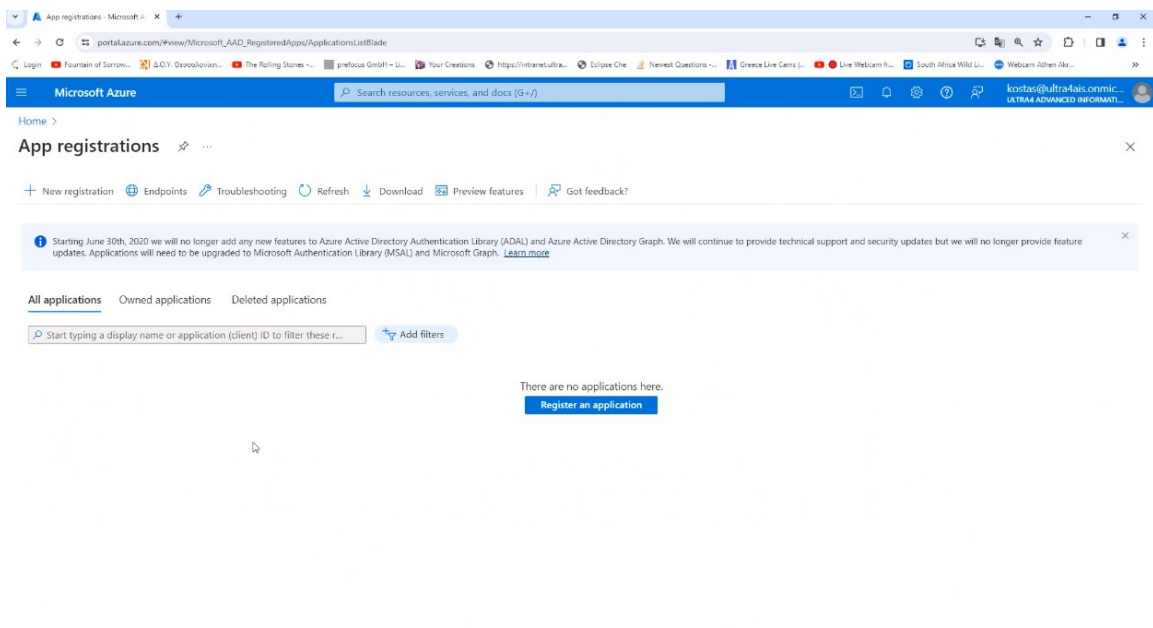
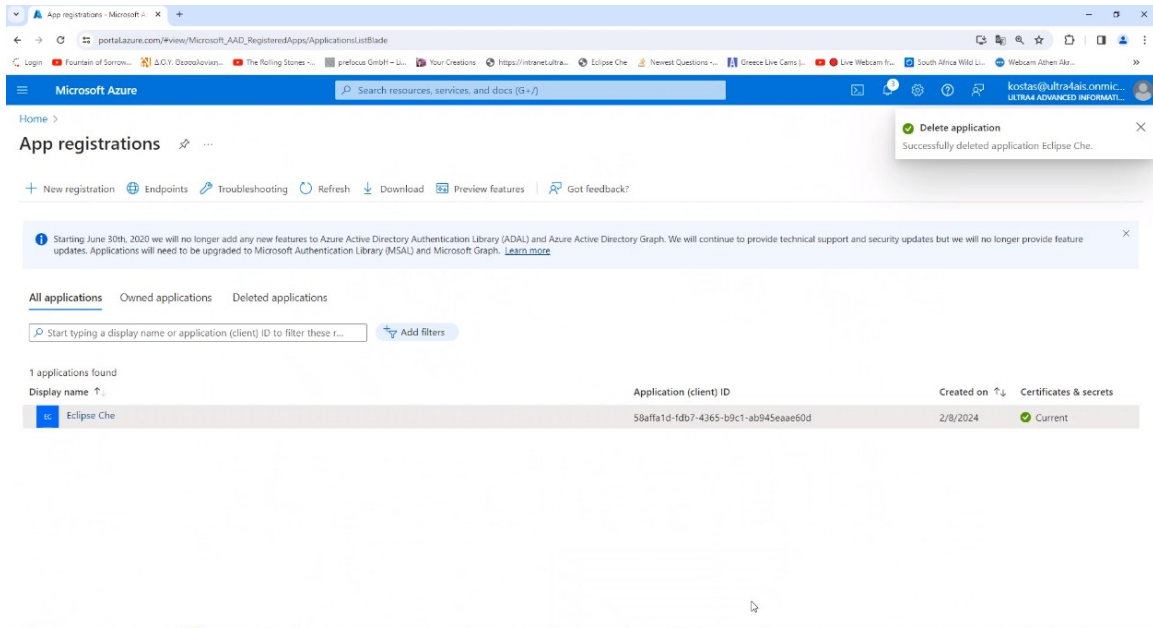
Supported account types : My organization only

Get Started Documentation

Build your application with the Microsoft identity platform

The Microsoft identity platform is an authentication service, open-source libraries, standards-based authentication solutions, access and protect APIs, and add

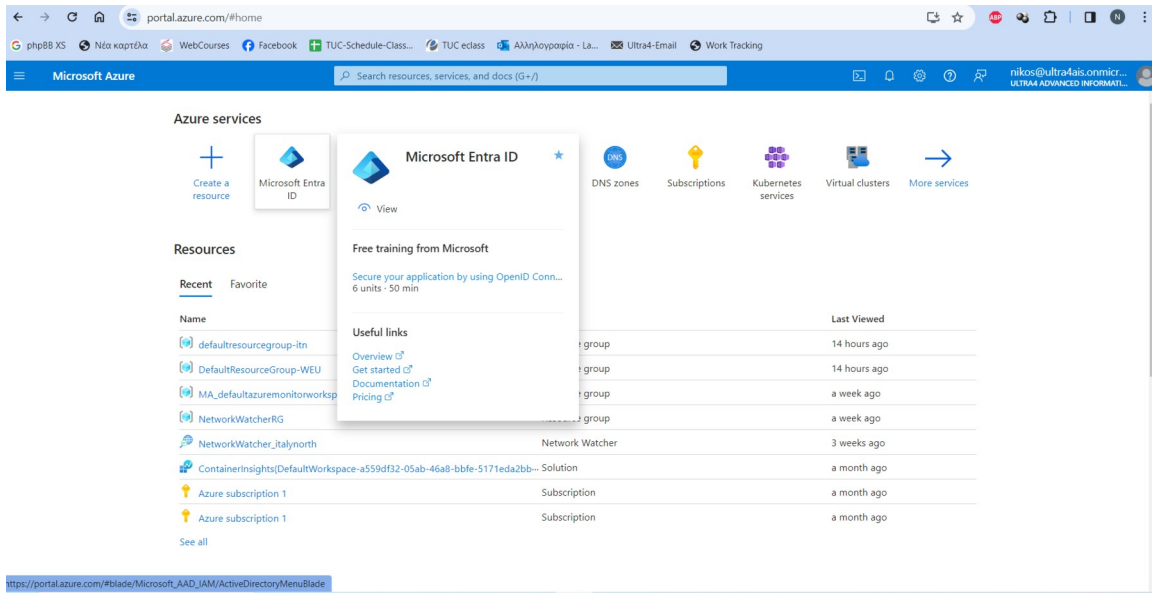
Delete Cancel



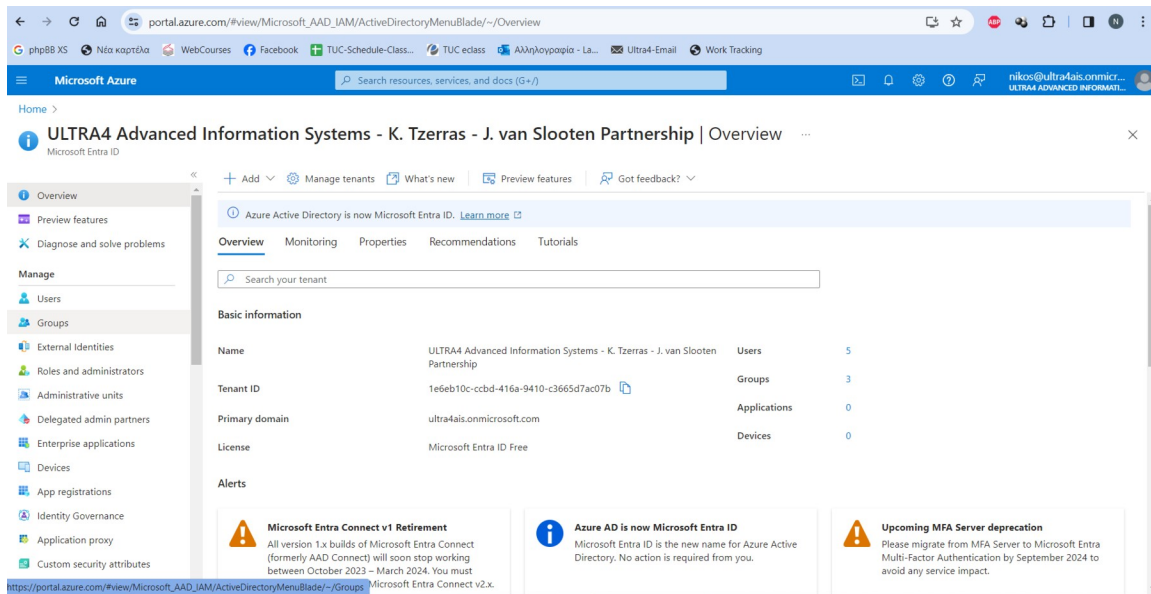
6. Deleting Group: **AKSAdmins**

The following operations are performed by user: kostas@ultra4ais.onmicrosoft.com

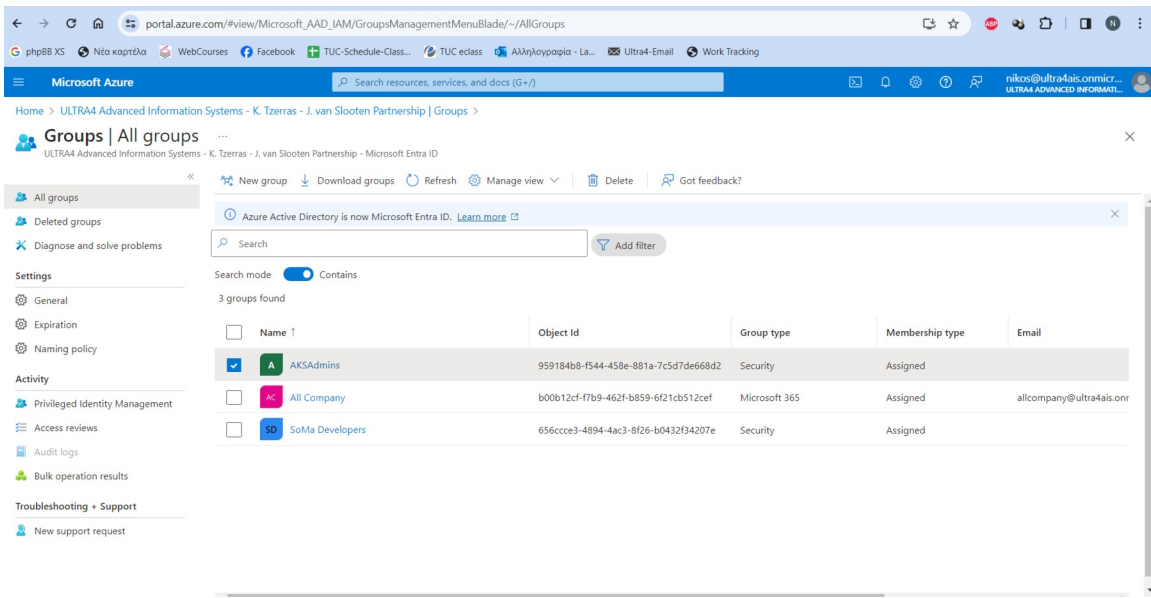
- Entering Microsoft Entra ID



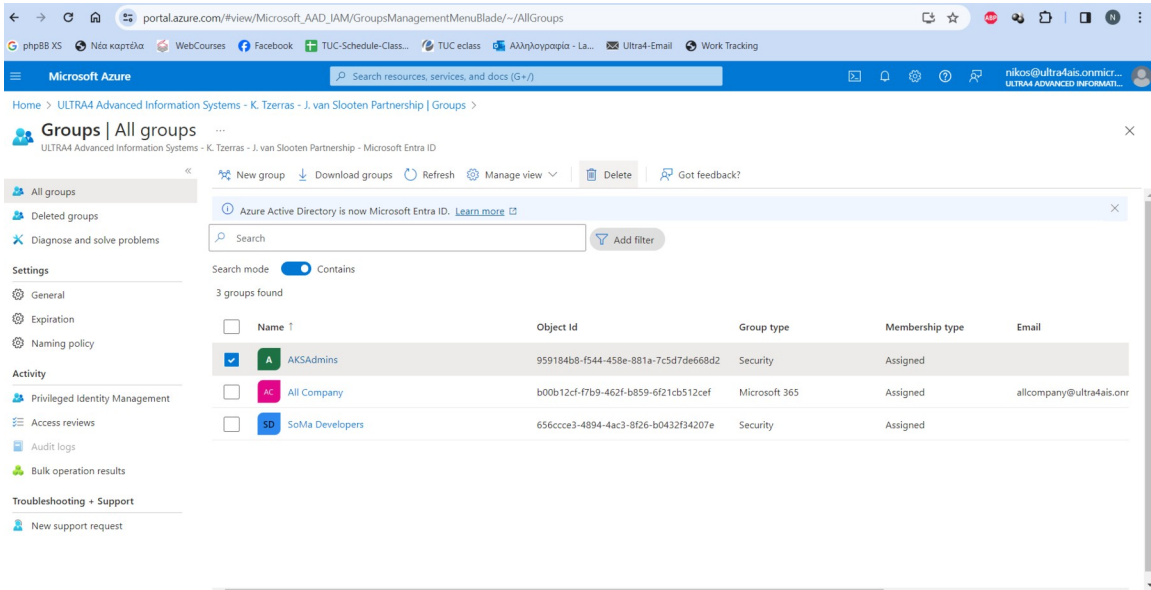
b. Selecting Groups

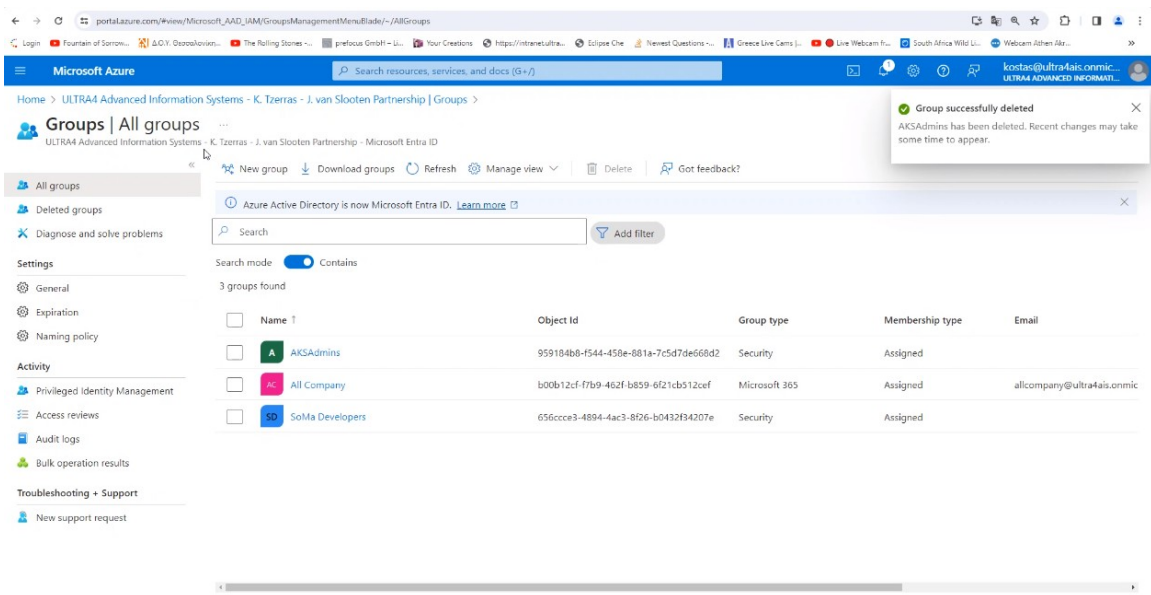
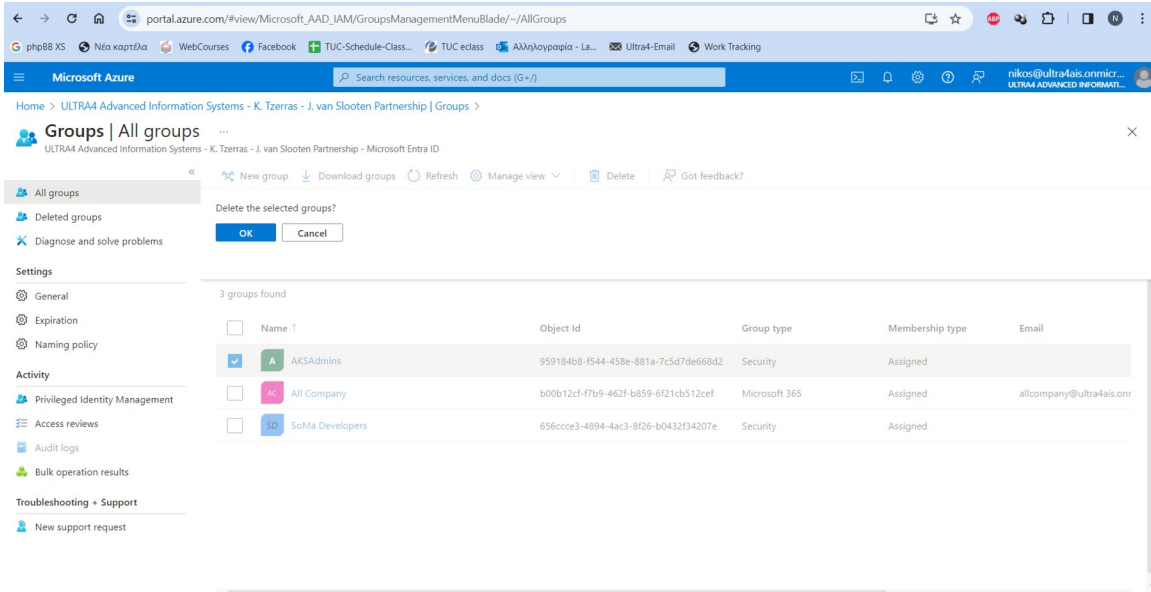


c. Selecting group AKSAdmins

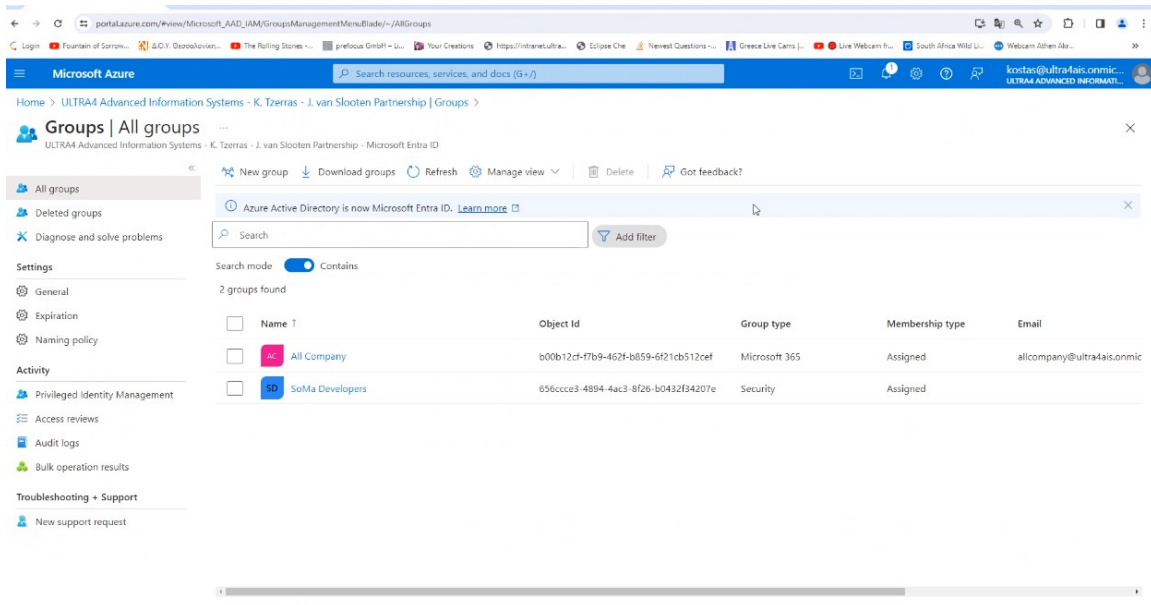


d. Select Delete and after select OK





Now by accessing Groups we can see that AKSAdmining group does not exists.



After these steps the existing AKS cluster setup was deleted (implying also that also the DNS Zone, the NGINX, the cert-manager (i.e. the Certificate Issuer and the Certificates) have been deleted).

The remaining groups where they located still there (All Company, SoMa Developers) are without connection to any other entity except for the subscription.

REFERENCES:



Deleting existing
aks cluster setup - T

Home - Microsoft Azure | Installing Che on Microsoft Azure | How to install the Azure CLI | Helm | Installing Helm | Helm | Installing Helm

https://helm.sh/docs/intro/install/

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Search ...

Docs Home

Introduction

- Quickstart Guide
- Installing Helm
- Using Helm
- Cheat Sheet

How-To

Topics

Best Practices

Chart Template Guide

Helm Commands

Community

Contribute to Docs

From the Binary Releases

Every [release](#) of Helm provides binary releases for a variety of OSes. These binary versions can be manually downloaded and installed.

1. Download your [desired version](#)
2. Unpack it (`tar -zxvf helm-v3.0.0-linux-amd64.tar.gz`)
3. Find the `helm` binary in the unpacked directory, and move it to its desired destination (`mv linux-amd64/helm /usr/local/bin/helm`)

From there, you should be able to run the client and [add the stable repo](#) : `helm help` .

Note: Helm automated tests are performed for Linux AMD64 only during CircleCi builds and releases. Testing of other OSes are the responsibility of the community requesting Helm for the OS in question.

From Script

https://github.com/helm/helm/releases

Type here to search

61°F Mostly cloudy 4:15 PM 3/12/2024

Home - Microsoft Azure | Installing Che on Microsoft Azure | How to install the Azure CLI | Helm | Installing Helm | Helm | Installing Helm | Releases - helm/helm

https://github.com/helm/helm/releases

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3 weeks ago

[mattfarina](#)

v3.14.2

c309b6f

Compare

Helm v3.14.2 Latest

Helm v3.14.2 is a security (patch) release. Users are strongly recommended to update to this release.

A Helm contributor discovered uninitialized variable vulnerability when Helm parses index and plugin yaml files missing expected content.

Jakub Ciolek with AlphaSense discovered the vulnerability.

Installation and Upgrading

Download Helm v3.14.2. The common platform binaries are here:

- [MacOS amd64](#) (checksum / 64c633ae194bde77b7e7b7936a2814a7417817dc8b7bb7d270bd24a7a17b8d12)
- [MacOS arm64](#) (checksum / ff502fd39b06497fa3d5a51ec2ced02b9fcd0e9a948d315fb1b2f13ddc39fb)
- [Linux amd64](#) (checksum / 0885a501d586c1e949e9b113bf3fb3290b0bbf74db944a1d8c2723a143006a5)
- [Linux arm](#) (checksum / b70fb6fa2cdf0a5c782320c9d7e7b155fcaec260169218c98316bb3cf0d431d9)
- [Linux arm64](#) (checksum / c65d6a9557bb359abc2c0d26670de850b52327dc3976ad6f9e14c298ea3e1b61)
- [Linux i386](#) (checksum / 0e08cd56cc952ab4646c57c5ec7cde2412c39373aec3df659a14597dd9874461)
- [Linux ppc64le](#) (checksum / f3bc8582ff151e619cd285d9cd9fef1c5733ee5522d8bed2ef680ef07f87223)
- [Linux s390x](#) (checksum / 7bda34aa26638e5116b31385f3b781172572175bf4c1ae00c87d8b154458ed94)
- [Linux riscv64](#) (checksum / f6278facd3e2e6af52a5f6d038f2149428d115ba2b4523edbe5889d1170e9203)
- [Windows amd64](#) (checksum / aa094e435da74ad574f96924c37ecc0c75f0be707ac604ef97ed6021d6bc0784)

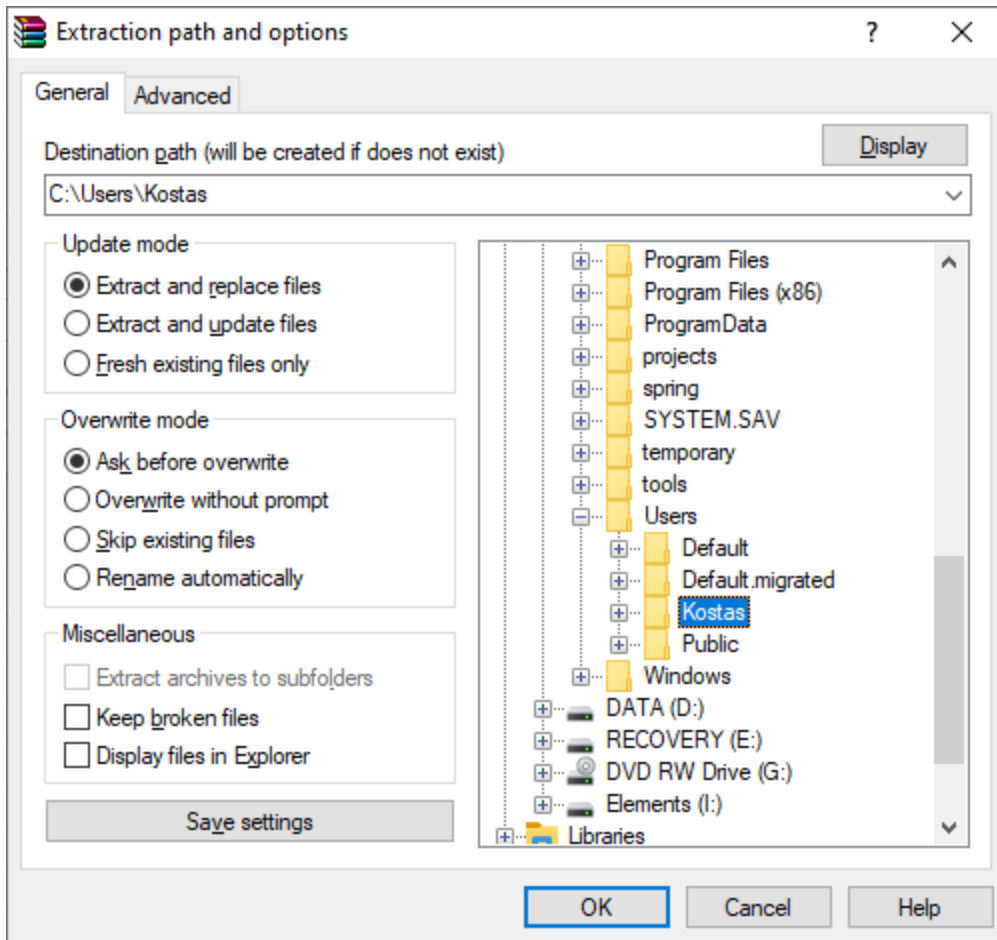
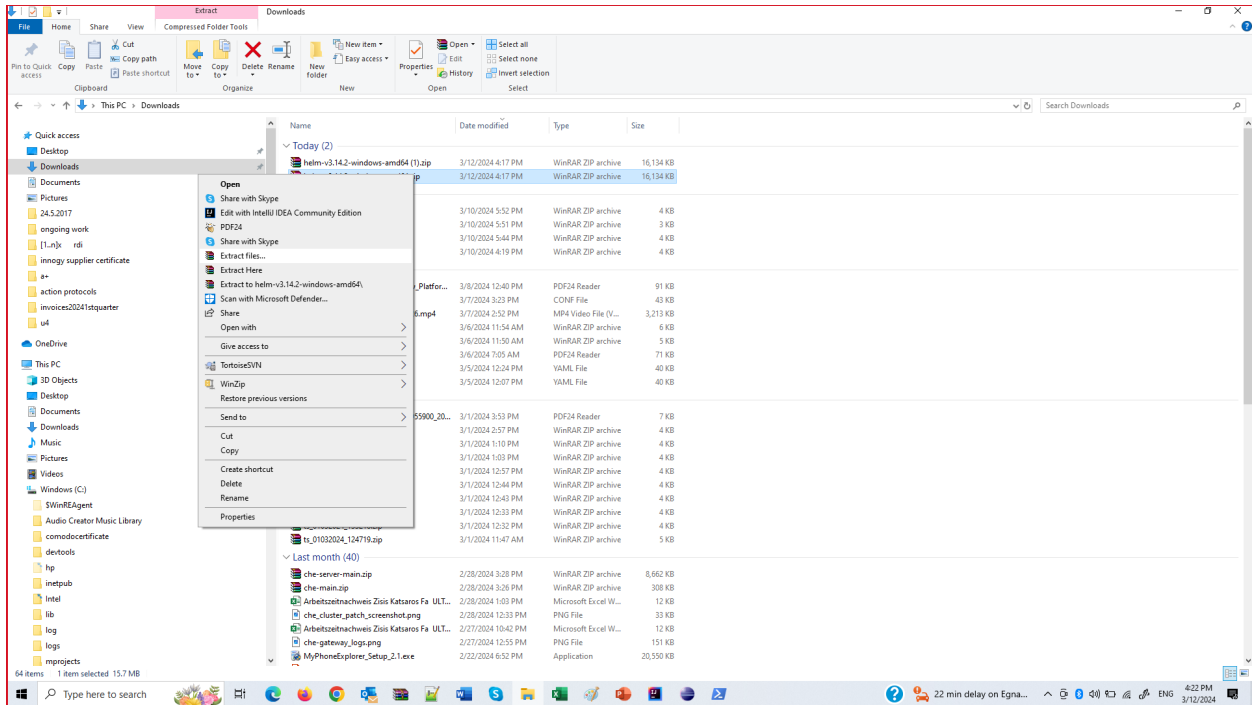
This release was signed with `672C 657B E06B 4B30 969C 4A57 4614 49C2 5E36 B9BE` and can be found at [@mattfarina](#) [keybase account](#). Please use the attached signatures for verifying this release using `gpg` .

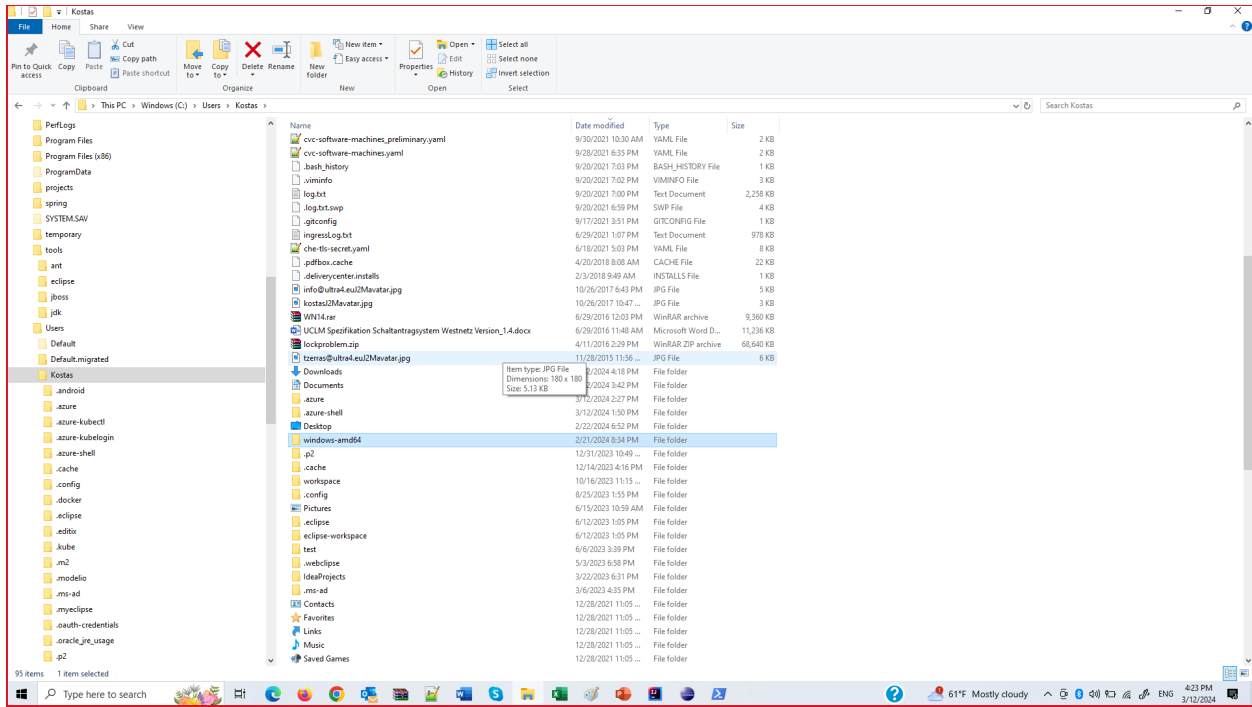
The [Quickstart Guide](#) will get you going from there. For [upgrade instructions](#) or detailed installation notes, check the [install guide](#). You can also use a [script to install](#) on any system with `bash`.

https://gethelm.sh/helm-v3.14.2-windows-amd64.zip

Type here to search

Nasdaq 100 +1.22% 4:16 PM 3/12/2024





./helm version

```
Windows PowerShell
PS C:\Users\Kostas\windows-amd64> ./helm version
version.BuildInfo{Version:"v3.14.2", GitCommit:"c309b6f0ff63856811846ce18f3bdc93d2b4d54b", GitTreeState:"clean", GoVersion:"go1.21.7"}
PS C:\Users\Kostas\windows-amd64>
```

version.BuildInfo{Version:"v3.14.2", GitCommit:"c309b6f0ff63856811846ce18f3bdc93d2b4d54b", GitTreeState:"clean", GoVersion:"go1.21.7"}

The current version of the Helm CLI is **3.14.2**.

3. Install the Kubernetes command-line tool and kubelogin, a client-go credential (exec) plugin implementing azure authentication according to <https://learn.microsoft.com/en-us/cli/azure/aks?view=azure-cli-latest#az-aks-install-cli>

```
az aks install-cli
```



```
Windows PowerShell
PS C:\Users\Kostas\windows-amd64> az aks install-cli
```

```
Windows PowerShell
PS C:\Users\Kostas\windows-amd64> az aks install-cli
The detected architecture of current device is "amd64", and the binary for "amd64" will be downloaded. If the detection is wrong, please download and install the binary corresponding to the appropriate architecture.
No version specified, will get the latest version of kubectl from "https://storage.googleapis.com/kubernetes-release/release/stable.txt"
Downloading client to "C:\Users\Kostas\.azure-kubectl\kubectl.exe" from "https://storage.googleapis.com/kubernetes-release/release/v1.29.2/bin/windows/amd64/kubectl.exe"
No version specified, will get the latest version of kubelogin from "https://api.github.com/repos/Azure/kubelogin/releases/latest"
Downloading client to "C:\Users\Kostas\AppData\Local\Temp\tmp7jmnahix\kubelogin.zip" from "https://github.com/Azure/kubelogin/releases/download/v0.1.1/kubelogin.zip"
Moving binary to "C:\Users\Kostas\.azure-kubelogin\kubelogin.exe" from "C:\Users\Kostas\AppData\Local\Temp\tmp7jmnahix\bin\windows_amd64\kubelogin.exe"
PS C:\Users\Kostas\windows-amd64>
```

kubectl version

```
Windows PowerShell
PS C:\Users\Kostas\windows-amd64> az aks install-cli
The detected architecture of current device is "amd64", and the binary for "amd64" will be downloaded. If the detection is wrong, please download and install the binary corresponding to the appropriate architecture.
No version specified, will get the latest version of kubect1 from "https://storage.googleapis.com/kubernetes-release/release/stable.txt"
Downloading client to "C:\Users\Kostas\.azure-kubect1\kubect1.exe" from "https://storage.googleapis.com/kubernetes-release/release/v1.29.2/bin/windows/amd64/kubect1.exe"
No version specified, will get the latest version of kubelogin from "https://api.github.com/repos/Azure/kubelogin/releases/latest"
Downloading client to "C:\Users\Kostas\AppData\Local\Temp\tmp7jmhahix\kubelogin.zip" from "https://github.com/Azure/kubelogin/releases/download/v0.1.1/kubelogin.zip"
Moving binary to "C:\Users\Kostas\.azure-kubelogin\kubelogin.exe" from "C:\Users\Kostas\AppData\Local\Temp\tmp7jmhahix\bin\windows_amd64\kubelogin.exe"
PS C:\Users\Kostas\windows-amd64> kubect1 version
Client Version: v1.29.2
Kustomize Version: v5.0.4-0.20230601165947-6ce0bf390ce3
Unable to connect to the server: dial tcp: lookup eclipse-ch-eclipse-che-a559df-1flv7z1a.hcp.italynorth.azmk8s.io: no such host
PS C:\Users\Kostas\windows-amd64>
```

The current version of the Kubect1 is **1.29.2** and kubelogin is **0.1.1**.

4. Log in to Microsoft Azure:

```
az login
```

```
Windows PowerShell
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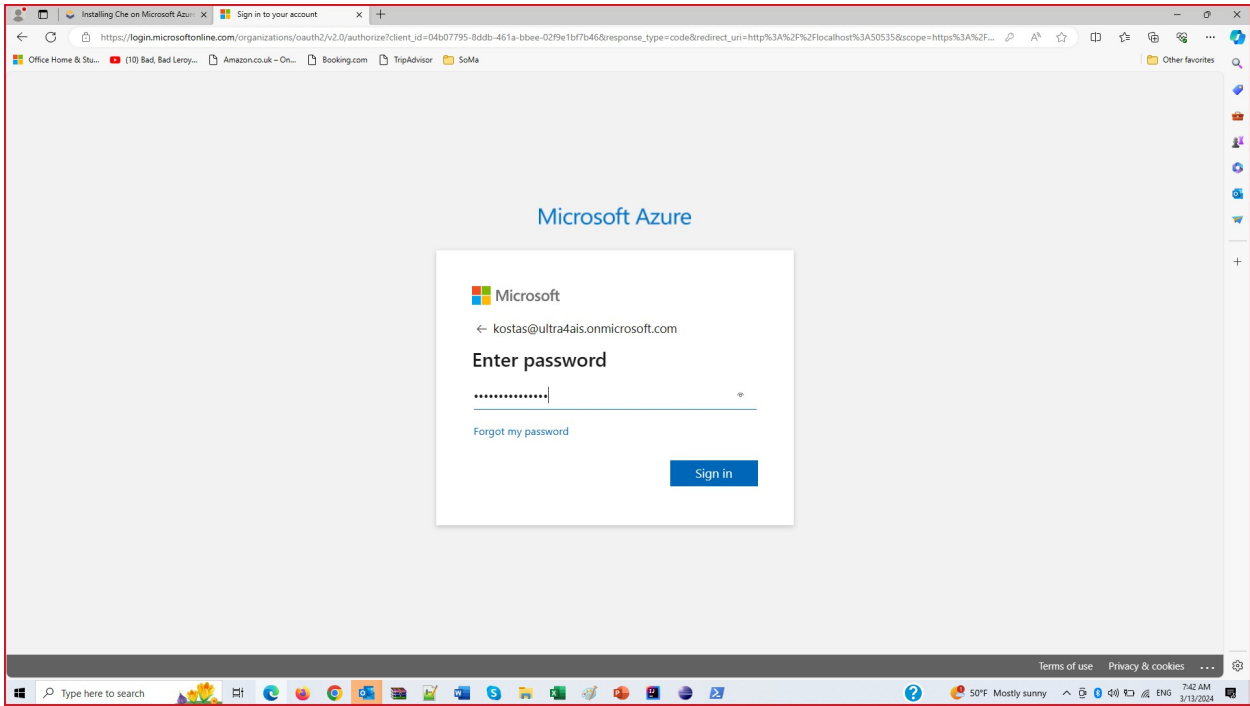
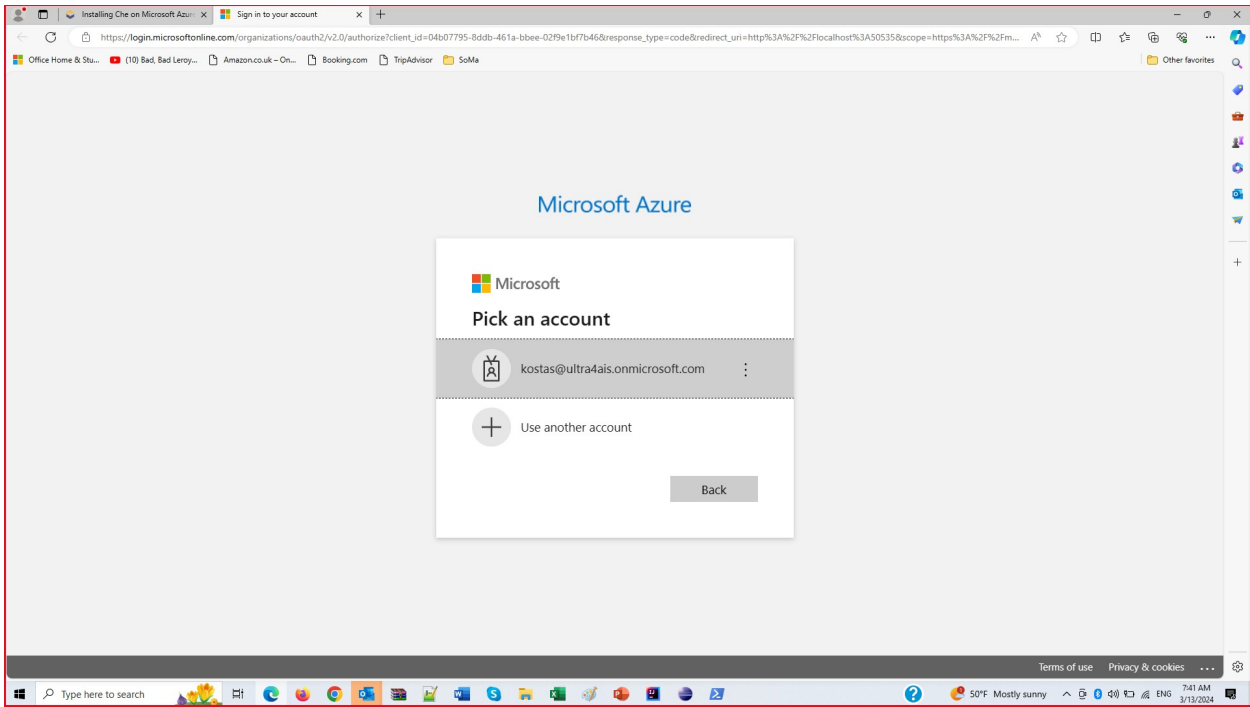
Try the new cross-platform PowerShell https://aka.ms/pscore6

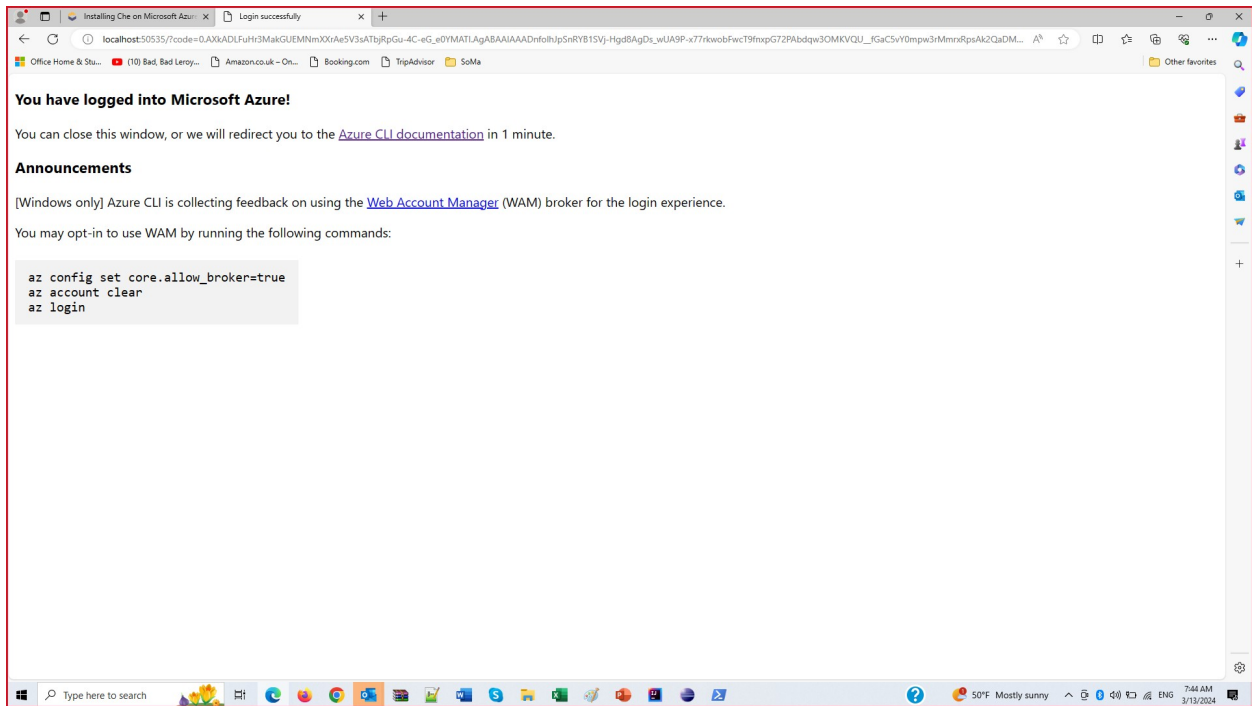
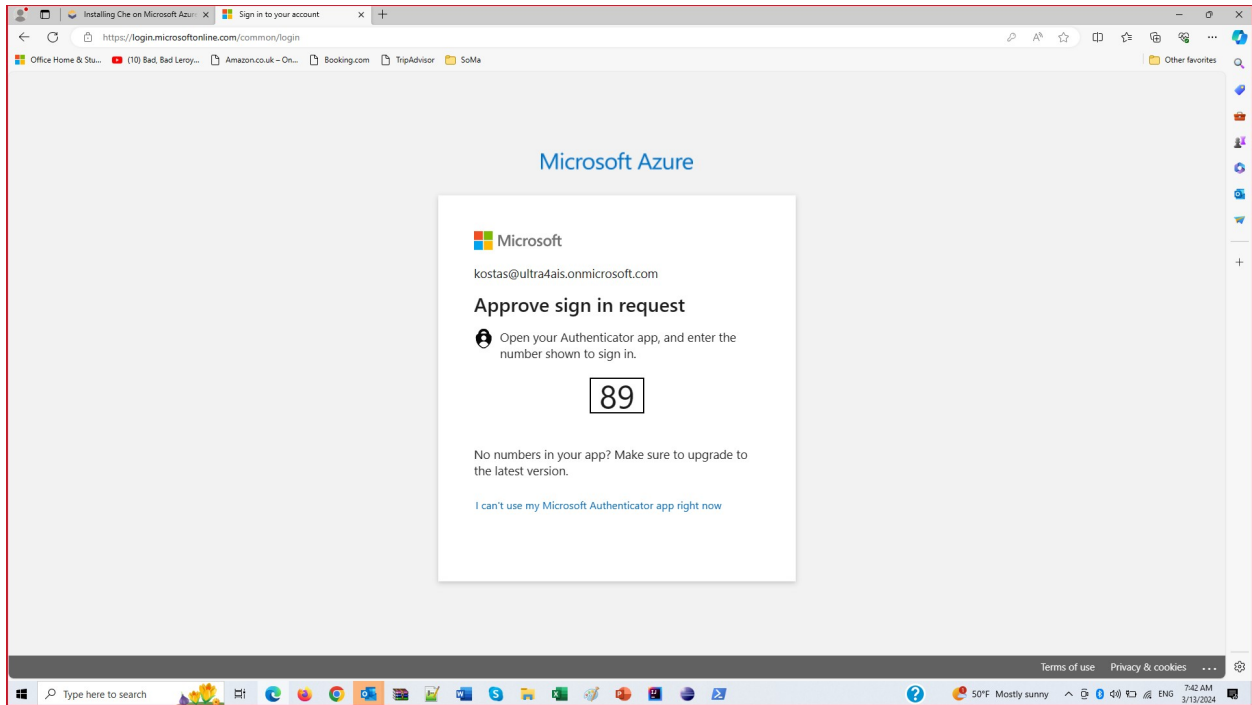
PS C:\Users\Kostas> az login
```

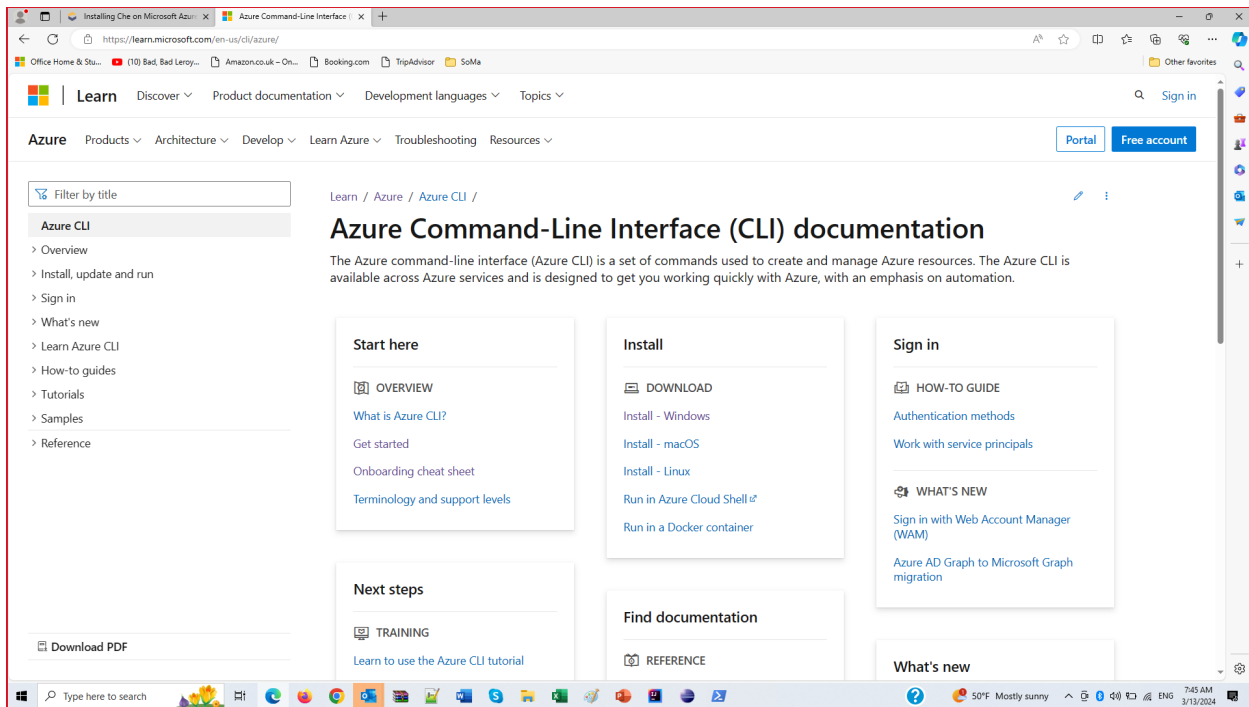
```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Kostas> az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue
the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow w
ith `az login --use-device-code`.
```







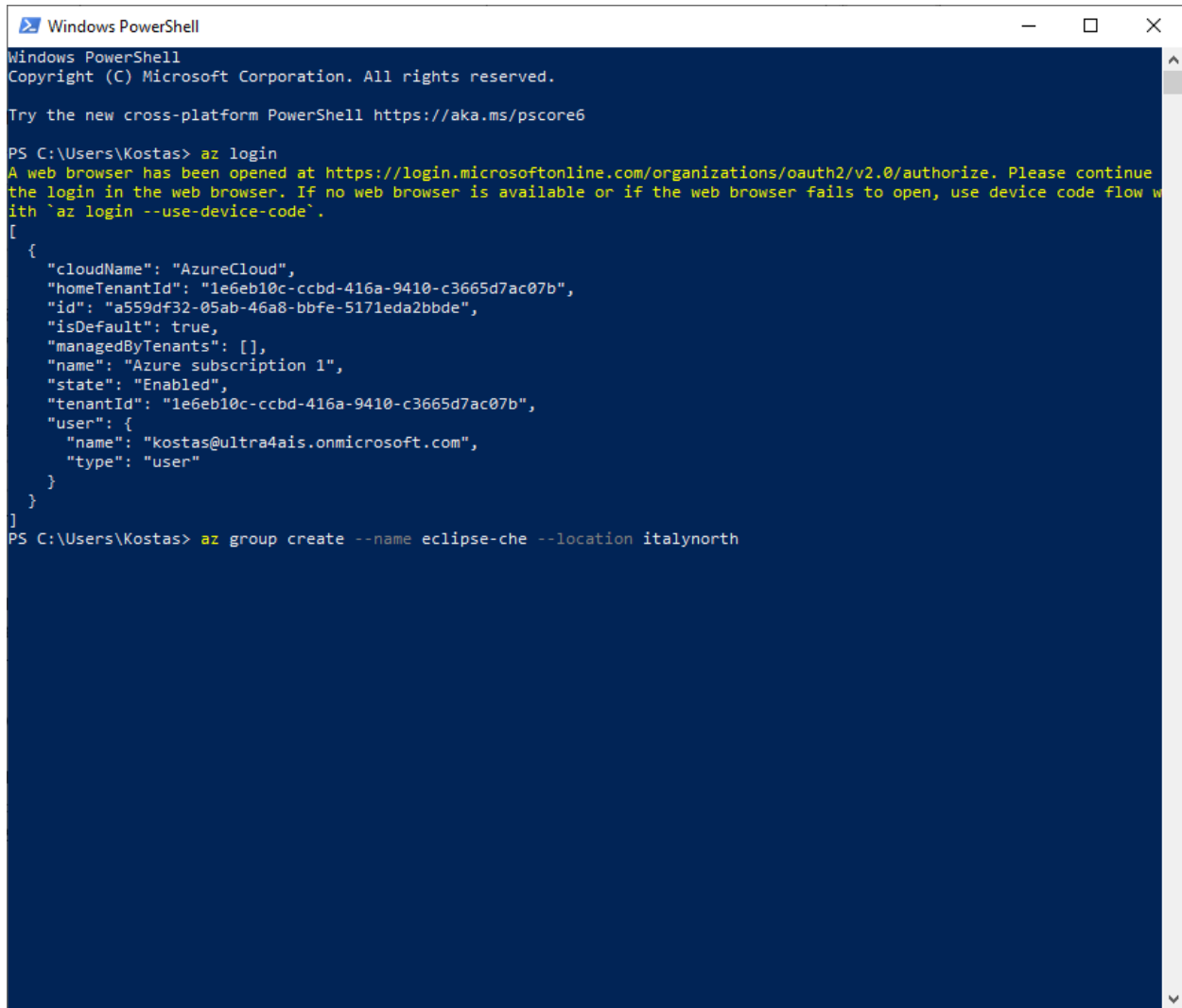
```

PS C:\Users\nickl> az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize
w with `az login --use-device-code`.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "id": "a559df32-05ab-46a8-bbfe-5171eda2bbde",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure subscription 1",
    "state": "Enabled",
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "user": {
      "name": "nikos@ultra4ais.onmicrosoft.com",
      "type": "user"
    }
  },
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "id": "a69e09fb-c248-468b-acc9-e324138695fe",
    "isDefault": false,
    "managedByTenants": [],
    "name": "Azure subscription 1",
    "state": "Disabled",
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "user": {
      "name": "nikos@ultra4ais.onmicrosoft.com",
      "type": "user"
    }
  }
]

```


5. Create a resource group

```
az group create --name eclipse-che --location italnorth
```



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Kostas> az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue
the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow w
ith `az login --use-device-code`.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "id": "a559df32-05ab-46a8-bbfe-5171eda2bbde",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure subscription 1",
    "state": "Enabled",
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "user": {
      "name": "kostas@ultra4ais.onmicrosoft.com",
      "type": "user"
    }
  }
]
PS C:\Users\Kostas> az group create --name eclipse-che --location italnorth
```

```
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "id": "a559df32-05ab-46a8-bbfe-5171eda2bbde",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure subscription 1",
    "state": "Enabled",
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
```

```

"user": {
  "name": "kostas@ultra4ais.onmicrosoft.com",
  "type": "user"
}
}
]

```

```

Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Kostas> az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue
the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow w
ith `az login --use-device-code`.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "id": "a559df32-05ab-46a8-bbfe-5171eda2bbde",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure subscription 1",
    "state": "Enabled",
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "user": {
      "name": "kostas@ultra4ais.onmicrosoft.com",
      "type": "user"
    }
  }
]
PS C:\Users\Kostas> az group create --name eclipse-che --location italnorth
{
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che",
  "location": "italynorth",
  "managedBy": null,
  "name": "eclipse-che",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\Kostas>

```

```

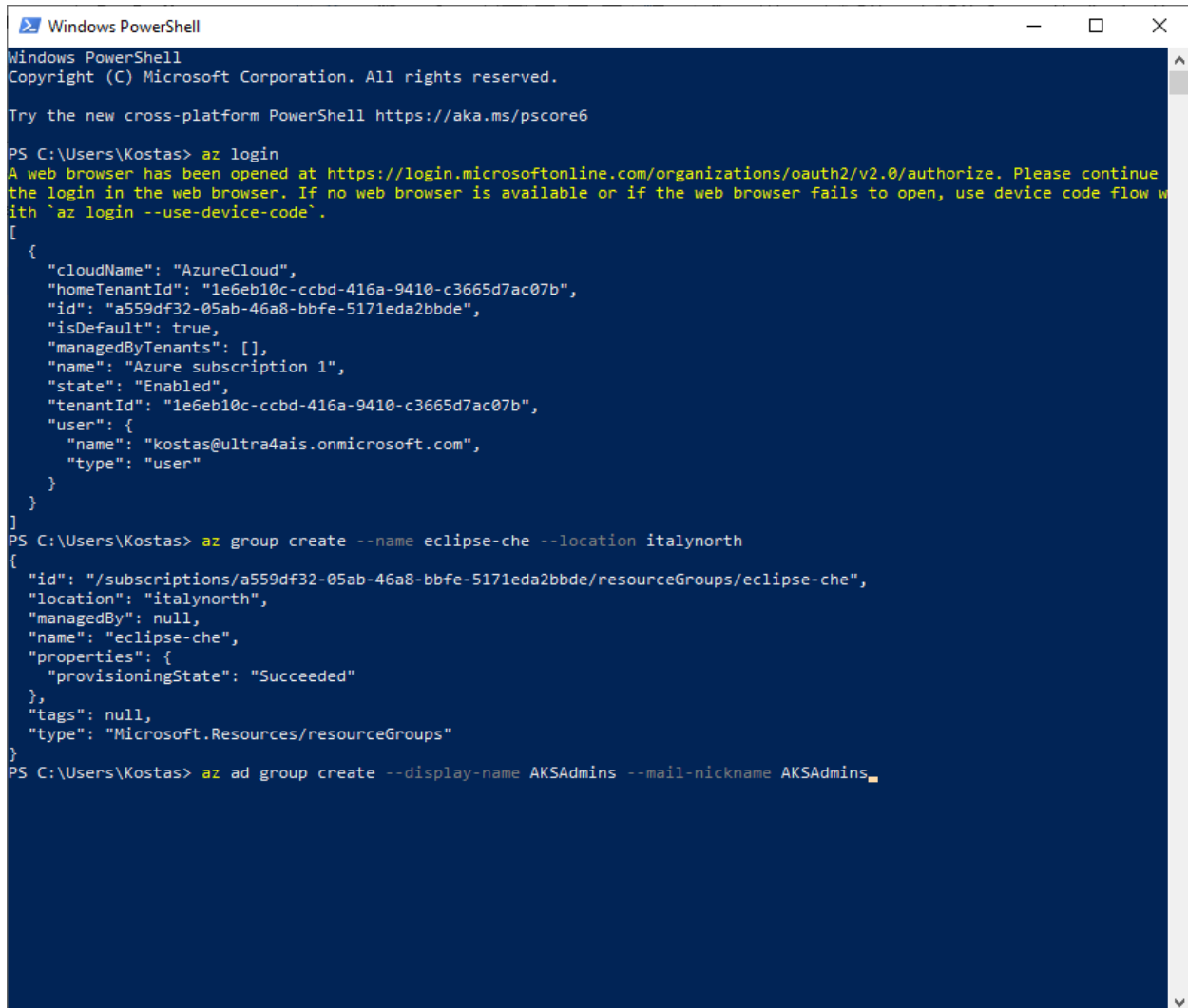
{
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che",
  "location": "italynorth",
  "managedBy": null,
  "name": "eclipse-che",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,

```

```
"type": "Microsoft.Resources/resourceGroups"  
}
```

6. Create a cluster admins group named AKSAdmins

```
az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins
```



```
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Kostas> az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue
the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow w
ith `az login --use-device-code`.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "id": "a559df32-05ab-46a8-bbfe-5171eda2bbde",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Azure subscription 1",
    "state": "Enabled",
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b",
    "user": {
      "name": "kostas@ultra4ais.onmicrosoft.com",
      "type": "user"
    }
  }
]
PS C:\Users\Kostas> az group create --name eclipse-che --location italnorth
{
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che",
  "location": "italynorth",
  "managedBy": null,
  "name": "eclipse-che",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\Kostas> az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins_
```

```

PS C:\Users\nickl> az group create --name eclipse-che --location italnorth
{
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che",
  "location": "italynorth",
  "managedBy": null,
  "name": "eclipse-che",
  "properties": {
    "provisioningState": "Succeeded"
  },
  "tags": null,
  "type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\nickl> az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
  "classification": null,
  "createdDateTime": "2024-03-22T12:08:54Z",
  "creationOptions": [],
  "deletedDateTime": null,
  "description": null,
  "displayName": "AKSAdmins",
  "expirationDateTime": null,
  "groupTypes": [],
  "id": "21e2a141-cef3-4097-be65-299a26fdef66",
  "isAssignableToRole": null,
  "mail": null,
  "mailEnabled": false,
  "mailNickname": "AKSAdmins",
  "membershipRule": null,
  "membershipRuleProcessingState": null,
  "onPremisesDomainName": null,
  "onPremisesLastSyncDateTime": null,
  "onPremisesNetBiosName": null,
  "onPremisesProvisioningErrors": [],
  "onPremisesSamAccountName": null,
  "onPremisesSecurityIdentifier": null,
  "onPremisesSyncEnabled": null,
  "preferredDataLocation": null,
  "preferredLanguage": null,
  "proxyAddresses": [],
  "renewedDateTime": "2024-03-22T12:08:54Z",
  "resourceBehaviorOptions": [],
  "resourceProvisioningOptions": [],
  "securityEnabled": true,
  "securityIdentifier": "S-1-12-1-568500545-1083690739-2586404286-1727003942",
  "serviceProvisioningErrors": [],
  "theme": null,
  "uniqueName": null,
  "visibility": null
}

```

```

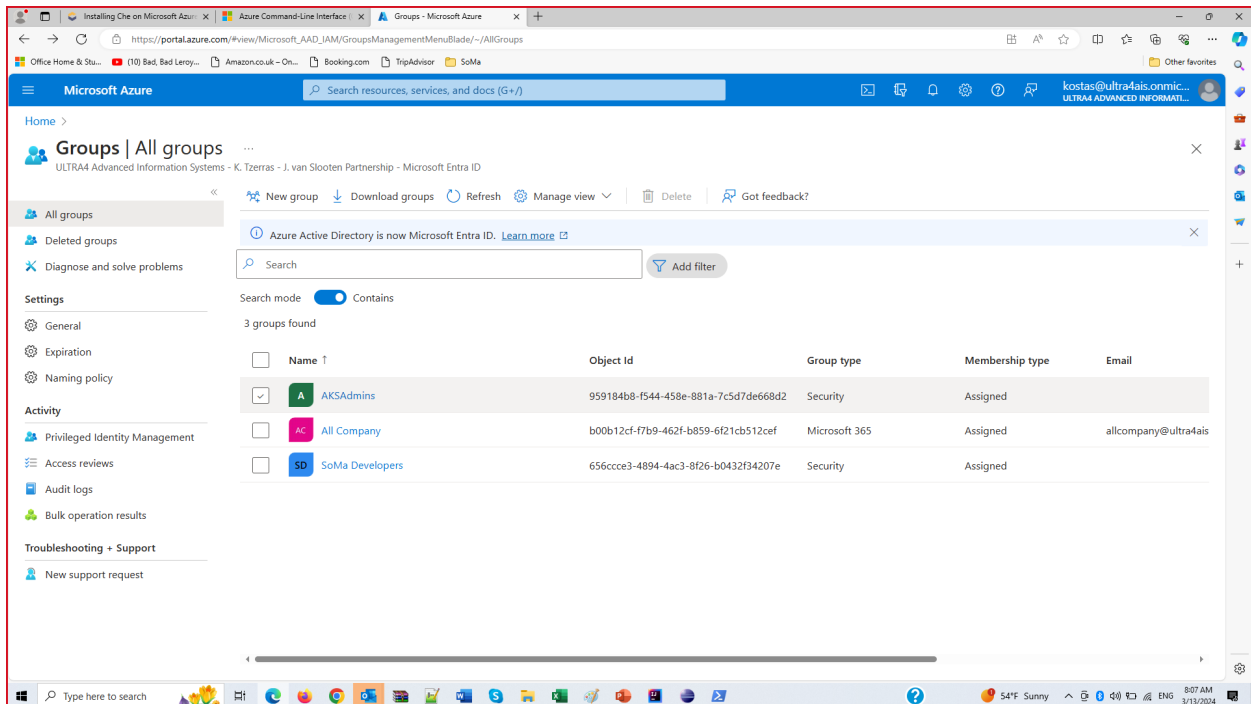
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
  "classification": null,
  "createdDateTime": "2024-03-22T12:08:54Z",
  "creationOptions": [],
  "deletedDateTime": null,
  "description": null,
  "displayName": "AKSAdmins",
  "expirationDateTime": null,
  "groupTypes": [],
  "id": "21e2a141-cef3-4097-be65-299a26fdef66",
  "isAssignableToRole": null,
  "mail": null,
  "mailEnabled": false,

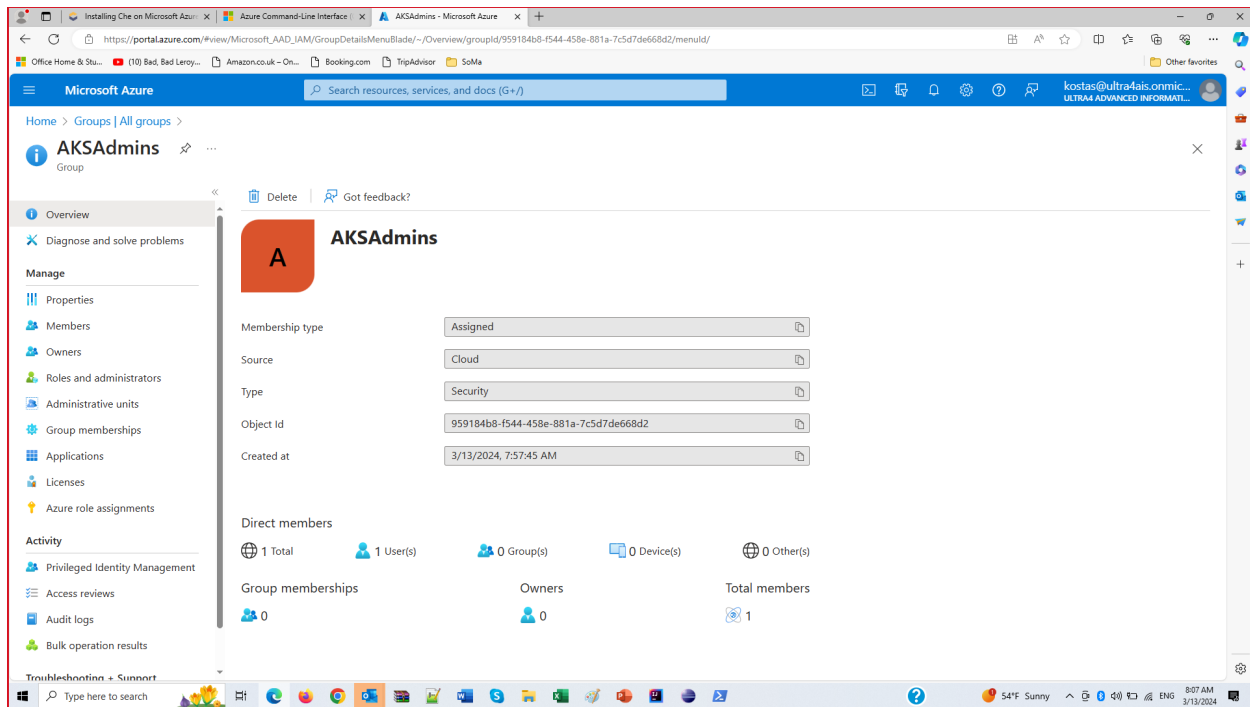
```

```

"mailNickname": "AKSAdmins",
"membershipRule": null,
"membershipRuleProcessingState": null,
"onPremisesDomainName": null,
"onPremisesLastSyncDateTime": null,
"onPremisesNetBiosName": null,
"onPremisesProvisioningErrors": [],
"onPremisesSamAccountName": null,
"onPremisesSecurityIdentifier": null,
"onPremisesSyncEnabled": null,
"preferredDataLocation": null,
"preferredLanguage": null,
"proxyAddresses": [],
"renewedDateTime": "2024-03-22T12:08:54Z",
"resourceBehaviorOptions": [],
"resourceProvisioningOptions": [],
"securityEnabled": true,
"securityIdentifier": "S-1-12-1-568500545-1083690739-2586404286-1727003942",
"serviceProvisioningErrors": [],
"theme": null,
"uniqueName": null,
"visibility": null
}

```





7. Add the current user to the cluster admins group

```
az ad signed-in-user show --query id --output tsv
```

```
Windows PowerShell
" id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che",
" location": "italynorth",
" managedBy": null,
" name": "eclipse-che",
" properties": {
  " provisioningState": "Succeeded"
},
" tags": null,
" type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\Kostas> az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
  "classification": null,
  "createdDateTime": "2024-03-13T06:57:45Z",
  "creationOptions": [],
  "deletedDateTime": null,
  "description": null,
  "displayName": "AKSAdmins",
  "expirationDateTime": null,
  "groupTypes": [],
  "id": "959184b8-f544-458e-881a-7c5d7de668d2",
  "isAssignableToRole": null,
  "mail": null,
  "mailEnabled": false,
  "mailNickname": "AKSAdmins",
  "membershipRule": null,
  "membershipRuleProcessingState": null,
  "onPremisesDomainName": null,
  "onPremisesLastSyncDateTime": null,
  "onPremisesNetBiosName": null,
  "onPremisesProvisioningErrors": [],
  "onPremisesSamAccountName": null,
  "onPremisesSecurityIdentifier": null,
  "onPremisesSyncEnabled": null,
  "preferredDataLocation": null,
  "preferredLanguage": null,
  "proxyAddresses": [],
  "renewedDateTime": "2024-03-13T06:57:45Z",
  "resourceBehaviorOptions": [],
  "resourceProvisioningOptions": [],
  "securityEnabled": true,
  "securityIdentifier": "S-1-12-1-2509341880-1166996804-1568414344-3530090109",
  "serviceProvisioningErrors": [],
  "theme": null,
  "visibility": null
}
PS C:\Users\Kostas> az ad signed-in-user show --query id --output tsv
f52308d5-3502-43da-afc4-fd0a17791391
PS C:\Users\Kostas>
```

0d4312c8-52ca-4b68-a62f-68f7391a323d (User Nick)

(for user Kostas Tzerras the command above delivers f52308d5-3502-43da-afc4-fd0a17791391)

```
az ad group member add --group AKSAdmins --member-id f52308d5-3502-43da-afc4-fd0a17791391
```



```
Windows PowerShell
"location": "italynorth",
"managedBy": null,
"name": "eclipse-che",
"properties": {
  "provisioningState": "Succeeded"
},
"tags": null,
"type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\Kostas> az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins
{
"@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
"classification": null,
"createdDateTime": "2024-03-13T06:57:45Z",
"creationOptions": [],
"deletedDateTime": null,
"description": null,
"displayName": "AKSAdmins",
"expirationDateTime": null,
"groupTypes": [],
"id": "959184b8-f544-458e-881a-7c5d7de668d2",
"isAssignableToRole": null,
"mail": null,
"mailEnabled": false,
"mailNickname": "AKSAdmins",
"membershipRule": null,
"membershipRuleProcessingState": null,
"onPremisesDomainName": null,
"onPremisesLastSyncDateTime": null,
"onPremisesNetBiosName": null,
"onPremisesProvisioningErrors": [],
"onPremisesSamAccountName": null,
"onPremisesSecurityIdentifier": null,
"onPremisesSyncEnabled": null,
"preferredDataLocation": null,
"preferredLanguage": null,
"proxyAddresses": [],
"renewedDateTime": "2024-03-13T06:57:45Z",
"resourceBehaviorOptions": [],
"resourceProvisioningOptions": [],
"securityEnabled": true,
"securityIdentifier": "S-1-12-1-2509341880-1166996804-1568414344-3530090109",
"serviceProvisioningErrors": [],
"theme": null,
"visibility": null
}
PS C:\Users\Kostas> az ad signed-in-user show --query id --output tsv
f52308d5-3502-43da-afc4-fd0a17791391
PS C:\Users\Kostas> az ad group member add --group AKSAdmins --member-id f52308d5-3502-43da-afc4-fd0a17791391
PS C:\Users\Kostas>
```

The screenshot shows the Microsoft Azure portal interface for the user 'Kostas Tzerras'. The user's profile is displayed, including their name, email (kostas@ultra4ais.onmicrosoft.com), and role (Member). The 'Group memberships' section is highlighted with a blue arrow, indicating that the user has 3 group memberships. Other sections visible include 'Basic info', 'My Feed', and 'Account status' (Enabled).

The screenshot shows the 'Groups' page for the user 'Kostas Tzerras'. The page displays a table of groups the user is a member of. The table has columns for Name, Object Id, Group Type, Membership Type, Email, and Source. The groups listed are AKSAdmins, All Company, and SoMa Developers.

Name	Object Id	Group Type	Membership Type	Email	Source
AKSAdmins	959184b8-f544-458e-881a-7c...	Security	Assigned		Cloud
All Company	b00b12cf-f7b9-462f-b859-6f2...	Microsoft 365	Assigned	allcompany@ultra4ais.onmicr...	Cloud
SoMa Developers	656ccce3-4894-4ac3-8126-b04...	Security	Assigned		Cloud

```
az ad group member add --group AKSAdmins --member-id 0d4312c8-52ca-4b68-a62f-68f7391a323d
```

```
Windows PowerShell
"managedBy": null,
"name": "eclipse-che",
"properties": {
  "provisioningState": "Succeeded"
},
"tags": null,
"type": "Microsoft.Resources/resourceGroups"
}
PS C:\Users\Kostas> az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
  "classification": null,
  "createdDateTime": "2024-03-13T06:57:45Z",
  "creationOptions": [],
  "deletedDateTime": null,
  "description": null,
  "displayName": "AKSAdmins",
  "expirationDateTime": null,
  "groupTypes": [],
  "id": "959184b8-f544-458e-881a-7c5d7de668d2",
  "isAssignableToRole": null,
  "mail": null,
  "mailEnabled": false,
  "mailNickname": "AKSAdmins",
  "membershipRule": null,
  "membershipRuleProcessingState": null,
  "onPremisesDomainName": null,
  "onPremisesLastSyncDateTime": null,
  "onPremisesNetBiosName": null,
  "onPremisesProvisioningErrors": [],
  "onPremisesSamAccountName": null,
  "onPremisesSecurityIdentifier": null,
  "onPremisesSyncEnabled": null,
  "preferredDataLocation": null,
  "preferredLanguage": null,
  "proxyAddresses": [],
  "renewedDateTime": "2024-03-13T06:57:45Z",
  "resourceBehaviorOptions": [],
  "resourceProvisioningOptions": [],
  "securityEnabled": true,
  "securityIdentifier": "S-1-12-1-2509341880-1166996804-1568414344-3530090109",
  "serviceProvisioningErrors": [],
  "theme": null,
  "visibility": null
}
PS C:\Users\Kostas> az ad signed-in-user show --query id --output tsv
f52308d5-3502-43da-afc4-fd0a17791391
PS C:\Users\Kostas> az ad group member add --group AKSAdmins --member-id f52308d5-3502-43da-afc4-fd0a17791391
PS C:\Users\Kostas> az ad group member add --group AKSAdmins --member-id 0d4312c8-52ca-4b68-a62f-68f7391a323d
PS C:\Users\Kostas>
```

AKSAdmins
Group

Membership type: Assigned
Source: Cloud
Type: Security
Object id: 959184b8-f544-458e-881a-7c5d7de668d2
Created at: 3/13/2024, 7:57:45 AM

Direct members: 2 Total, 2 User(s), 0 Group(s), 0 Device(s), 0 Other(s)

Group memberships: 0, Owners: 0, Total members: 2

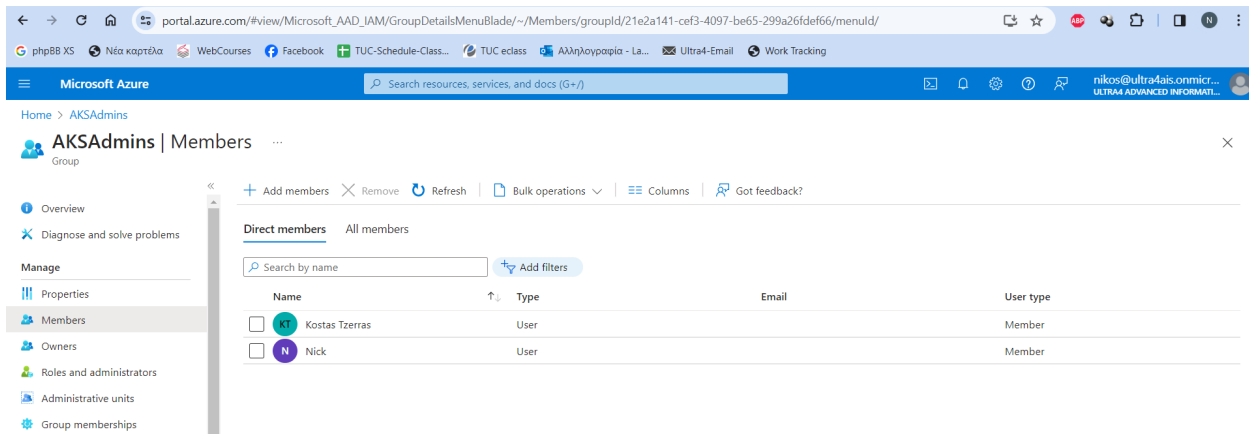
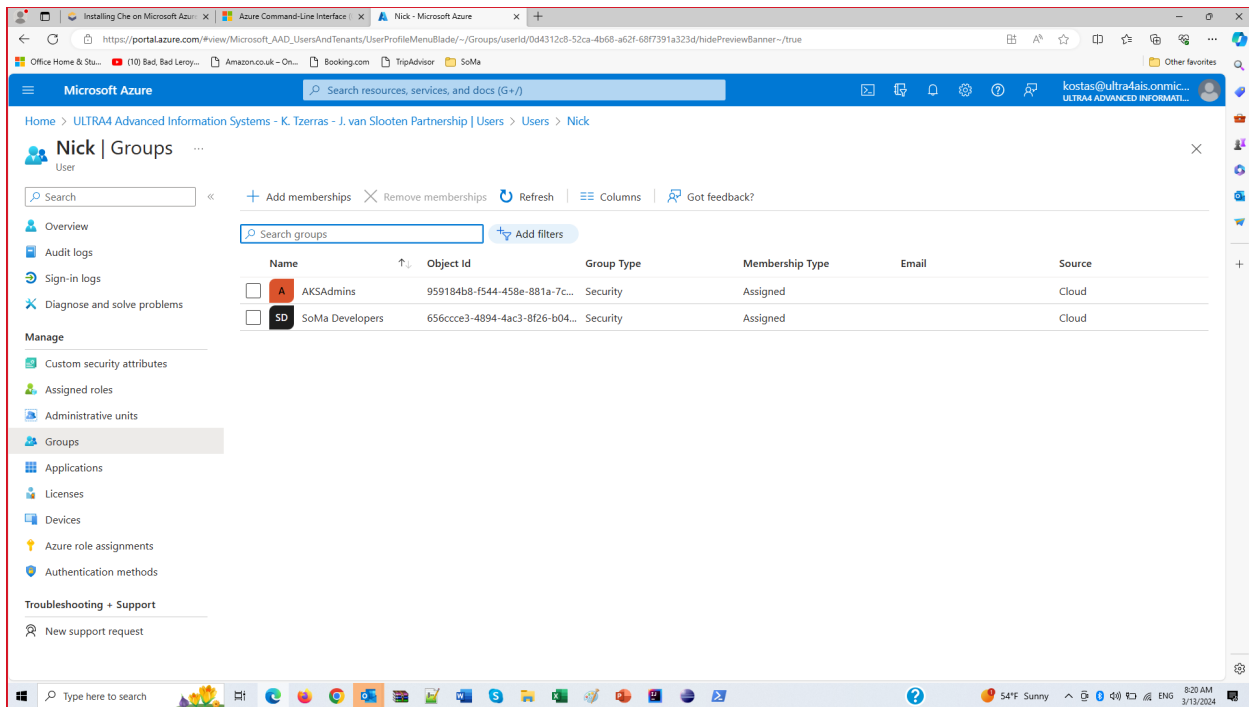
Nick
User

Basic info:
User principal name: nikos@ultra4ais.onmicrosoft.com
Object ID: 0d4312c8-52ca-4b68-a62f-68f7391a323d
Created date time: Feb 2, 2024, 5:16 PM
User type: Member
Identities: ultra4ais.onmicrosoft.com

Group memberships: 2 (indicated by a blue arrow)

Applications: 0
Assigned roles: 0
Assigned licenses: 0

My Feed:
Account status: Enabled
B2B invitation: Convert to external user



8. Create the Microsoft Entra integrated cluster

```
az ad group list --query "[?displayName=='AKSAdmins'].id" --output tsv
```

```

PS C:\Users\nickl> az ad group create --display-name AKSAdmins --mail-nickname AKSAdmins
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#groups/$entity",
  "classification": null,
  "createdDateTime": "2024-03-22T12:08:54Z",
  "creationOptions": [],
  "deletedDateTime": null,
  "description": null,
  "displayName": "AKSAdmins",
  "expirationDateTime": null,
  "groupTypes": [],
  "id": "21e2a141-cef3-4097-be65-299a26fdef66",
  "isAssignableToRole": null,
  "mail": null,
  "mailEnabled": false,
  "mailNickname": "AKSAdmins",
  "membershipRule": null,
  "membershipRuleProcessingState": null,
  "onPremisesDomainName": null,
  "onPremisesLastSyncDateTime": null,
  "onPremisesNetBiosName": null,
  "onPremisesProvisioningErrors": [],
  "onPremisesSamAccountName": null,
  "onPremisesSecurityIdentifier": null,
  "onPremisesSyncEnabled": null,
  "preferredDataLocation": null,
  "preferredLanguage": null,
  "proxyAddresses": [],
  "renewedDateTime": "2024-03-22T12:08:54Z",
  "resourceBehaviorOptions": [],
  "resourceProvisioningOptions": [],
  "securityEnabled": true,
  "securityIdentifier": "S-1-12-1-568500545-1083690739-2586404286-1727003942",
  "serviceProvisioningErrors": [],
  "theme": null,
  "uniqueName": null,
  "visibility": null
}
PS C:\Users\nickl> az ad signed-in-user show --query id --output tsv
0d4312c8-52ca-4b68-a62f-68f7391a323d
PS C:\Users\nickl> az ad group member add --group AKSAdmins --member-id 0d4312c8-52ca-4b68-a62f-68f7391a323d
PS C:\Users\nickl> az ad group member add --group AKSAdmins --member-id f52308d5-3502-43da-afc4-fd0a17791391
PS C:\Users\nickl>
PS C:\Users\nickl>
PS C:\Users\nickl>
PS C:\Users\nickl>
PS C:\Users\nickl> az ad group list --query "[?displayName=='AKSAdmins'].id" --output tsv
21e2a141-cef3-4097-be65-299a26fdef66
PS C:\Users\nickl>

```

21e2a141-cef3-4097-be65-299a26fdef66

```

az aks create --resource-group eclipse-che --name eclipse-che --enable-aad
--aad-admin-group-object-ids 21e2a141-cef3-4097-be65-299a26fdef66 --generate-
ssh-keys

```

```

PS C:\Users\nick1> az aks create --resource-group eclipse-che --name eclipse-che --enable-aad --aad-admin-
The behavior of this command has been altered by the following extension: aks-preview
{
  "aadProfile": {
    "adminGroupObjectIDs": [
      "21e2a141-cef3-4097-be65-299a26fdef66"
    ],
    "adminUsers": null,
    "clientAppId": null,
    "enableAzureRbac": false,
    "managed": true,
    "serverAppId": null,
    "serverAppSecret": null,
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b"
  },
  "addonProfiles": null,
  "agentPoolProfiles": [
    {
      "artifactStreamingProfile": null,
      "availabilityZones": null,
      "capacityReservationGroupId": null,
      "count": 3,
      "creationData": null,
      "currentOrchestratorVersion": "1.27.9",
      "enableAutoScaling": false,
      "enableCustomCaTrust": false,
      "enableEncryptionAtHost": false,
      "enableFips": false,
      "enableNodePublicIp": false,
      "enableUltraSsd": false,
      "gpuInstanceProfile": null,
      "gpuProfile": null,
      "hostGroupId": null,
      "kubeletConfig": null,
      "kubeletDiskType": "OS",
      "linuxOsConfig": null,
      "maxCount": null,
      "maxPods": 110,
      "messageOfTheDay": null,
      "minCount": null,
      "mode": "System",
      "name": "nodepool1",
      "networkProfile": {
        "allowedHostPorts": null,
        "applicationSecurityGroups": null,
        "nodePublicIpTags": null
      },
      "nodeImageVersion": "AKSUBuntu-2204gen2containerd-202403.04.0",
      "nodeInitializationTaints": null,
      "nodeLabels": null,
    }
  ]
}

```

The behavior of this command has been altered by the following extension: aks-preview

```

{
  "aadProfile": {
    "adminGroupObjectIDs": [
      "21e2a141-cef3-4097-be65-299a26fdef66"
    ],
    "adminUsers": null,
    "clientAppId": null,
    "enableAzureRbac": false,
    "managed": true,
    "serverAppId": null,
    "serverAppSecret": null,
    "tenantId": "1e6eb10c-ccbd-416a-9410-c3665d7ac07b"
  },
  "addonProfiles": null,
  "agentPoolProfiles": [

```

```

{
  "artifactStreamingProfile": null,
  "availabilityZones": null,
  "capacityReservationGroupid": null,
  "count": 3,
  "creationData": null,
  "currentOrchestratorVersion": "1.27.9",
  "enableAutoScaling": false,
  "enableCustomCaTrust": false,
  "enableEncryptionAtHost": false,
  "enableFips": false,
  "enableNodePublicIp": false,
  "enableUltraSsd": false,
  "gpuInstanceProfile": null,
  "gpuProfile": null,
  "hostGroupid": null,
  "kubeletConfig": null,
  "kubeletDiskType": "OS",
  "linuxOsConfig": null,
  "maxCount": null,
  "maxPods": 110,
  "messageOfTheDay": null,
  "minCount": null,
  "mode": "System",
  "name": "nodepool1",
  "networkProfile": {
    "allowedHostPorts": null,
    "applicationSecurityGroups": null,
    "nodePublicIpTags": null
  },
  "nodeImageVersion": "AKSUbuntu-2204gen2containerd-202403.04.0",
  "nodeInitializationTaints": null,
  "nodeLabels": null,
  "nodePublicIpPrefixid": null,
  "nodeTaints": null,
  "orchestratorVersion": "1.27.9",
  "osDiskSizeGb": 128,
  "osDiskType": "Managed",
  "osSku": "Ubuntu",
  "osType": "Linux",
  "podSubnetid": null,
  "powerState": {
    "code": "Running"
  },
},

```



```

    "provisioningState": "Succeeded",
    "proximityPlacementGroupid": null,
    "scaleDownMode": null,
    "scaleSetEvictionPolicy": null,
    "scaleSetPriority": null,
    "securityProfile": {
      "sshAccess": "LocalUser"
    },
    "spotMaxPrice": null,
    "tags": null,
    "type": "VirtualMachineScaleSets",
    "upgradeSettings": {
      "drainTimeoutInMinutes": null,
      "maxSurge": null,
      "nodeSoakDurationInMinutes": null
    },
    "virtualMachineNodesStatus": null,
    "virtualMachinesProfile": null,
    "vmSize": "Standard_DS2_v2",
    "vnetSubnetId": null,
    "windowsProfile": null,
    "workloadRuntime": "OCIContainer"
  }
],
"aiToolchainOperatorProfile": null,
"apiServerAccessProfile": null,
"autoScalerProfile": null,
"autoUpgradeProfile": {
  "nodeOsUpgradeChannel": "NodeImage",
  "upgradeChannel": null
},
"azureMonitorProfile": null,
"azurePortalFqdn": "eclipse-ch-eclipse-che-a559df-1dgg56uy.portal.hcp.italynorth.azmk8s.io",
"creationData": null,
"currentKubernetesVersion": "1.27.9",
"disableLocalAccounts": false,
"diskEncryptionSetId": null,
"dnsPrefix": "eclipse-ch-eclipse-che-a559df",
"enableNamespaceResources": null,
"enablePodSecurityPolicy": false,
"enableRbac": true,
"extendedLocation": null,
"fqdn": "eclipse-ch-eclipse-che-a559df-1dgg56uy.hcp.italynorth.azmk8s.io",
"fqdnSubdomain": null,

```

```

"guardrailsProfile": null,
"httpProxyConfig": null,
"id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourcegroups/eclipse-che/
providers/Microsoft.ContainerService/managedClusters/eclipse-che",
"identity": {
  "delegatedResources": null,
  "principalId": "2e7407ce-2d20-47bb-b791-3624e632e9d3",
  "tenantId": "1e6eb10c-ccb4-416a-9410-c3665d7ac07b",
  "type": "SystemAssigned",
  "userAssignedIdentities": null
},
"identityProfile": {
  "kubeletidentity": {
    "clientId": "4863d2f9-aad1-4ed0-9c7f-1c2a9d8974f9",
    "objectId": "467e9901-706f-411c-8f16-fab38d7b6391",
    "resourceId": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourcegroups/
MC_eclipse-che_eclipse-che_italynorth/providers/Microsoft.ManagedIdentity/
userAssignedIdentities/eclipse-che-agentpool"
  }
},
"ingressProfile": null,
"kubernetesVersion": "1.27",
"linuxProfile": {
  "adminUsername": "azureuser",
  "ssh": {
    "publicKeys": [
      {
        "keyData": "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQAC2A0IBDsFQI+7+nukU0P+5fwHUqsh3QGcWE3RLWHE
gYxGQRQfNykaEYphWLGcB8CugxgKZ/
FttniH5sDZkbnSeoKn8ymmXZ5AU+SezicTtsTs3okPfM0T7FI0L8XZOXeOzyKETBEWOr+le2CniUh
dngl1RILWnN7Rlr0ThzwH8jTR9B78ackx5jfVQHyrVOym7ZZKTIPe0TYkH5UV3JWrSWSdyRFCISGRr
82FKJ3zsP5+TBBdb4+7KtEKKswOWYVeoHVOwTFoU1zJOZfvQmdBz6uyt270blI3lsQECLqslpAwt
kxYKvVYer+sLBztOM60iEGgVxnXWw4uc2H7oHz"
      }
    ]
  }
},
"location": "italynorth",
"maxAgentPools": 100,
"metricsProfile": {
  "costAnalysis": {
    "enabled": false
  }
}

```

```

},
"name": "eclipse-che",
"networkProfile": {
  "dnsServiceIp": "10.0.0.10",
  "ipFamilies": [
    "IPv4"
  ],
  "kubeProxyConfig": null,
  "loadBalancerProfile": {
    "allocatedOutboundPorts": null,
    "backendPoolType": "nodeIPConfiguration",
    "effectiveOutboundIPs": [
      {
        "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/MC_eclipse-che_eclipse-che_italynorth/providers/Microsoft.Network/publicIPAddresses/5203ae07-0870-486a-9946-344e06d82c5e",
        "resourceGroup": "MC_eclipse-che_eclipse-che_italynorth"
      }
    ],
    "enableMultipleStandardLoadBalancers": null,
    "idleTimeoutInMinutes": null,
    "managedOutboundIPs": {
      "count": 1,
      "countIpv6": null
    },
    "outboundIPs": null,
    "outboundIpPrefixes": null
  },
  "loadBalancerSku": "Standard",
  "monitoring": null,
  "natGatewayProfile": null,
  "networkDataplane": null,
  "networkMode": null,
  "networkPlugin": "kubenet",
  "networkPluginMode": null,
  "networkPolicy": "none",
  "outboundType": "loadBalancer",
  "podCidr": "10.244.0.0/16",
  "podCidrs": [
    "10.244.0.0/16"
  ],
  "serviceCidr": "10.0.0.0/16",
  "serviceCidrs": [
    "10.0.0.0/16"
  ]
}

```

```

]
},
"nodeProvisioningProfile": {
  "mode": "Manual"
},
"nodeResourceGroup": "MC_eclipse-che_eclipse-che_italynorth",
"nodeResourceGroupProfile": null,
"oidcIssuerProfile": {
  "enabled": false,
  "issuerUrl": null
},
"podIdentityProfile": null,
"powerState": {
  "code": "Running"
},
"privateFqdn": null,
"privateLinkResources": null,
"provisioningState": "Succeeded",
"publicNetworkAccess": null,
"resourceGroup": "eclipse-che",
"resourceUid": "65fd7bada43cf20001bf5e1b",
"securityProfile": {
  "azureKeyVaultKms": null,
  "customCaTrustCertificates": null,
  "defender": null,
  "imageCleaner": null,
  "imageIntegrity": null,
  "nodeRestriction": null,
  "workloadIdentity": null
},
"serviceMeshProfile": null,
"servicePrincipalProfile": {
  "clientId": "msi",
  "secret": null
},
"sku": {
  "name": "Base",
  "tier": "Free"
},
"storageProfile": {
  "blobCsiDriver": null,
  "diskCsiDriver": {
    "enabled": true,
    "version": "v1"
  }
}

```

```

},
"fileCsiDriver": {
  "enabled": true
},
"snapshotController": {
  "enabled": true
}
},
"supportPlan": "KubernetesOfficial",
"systemData": null,
"tags": null,
"type": "Microsoft.ContainerService/ManagedClusters",
"upgradeSettings": null,
"windowsProfile": null,
"workloadAutoScalerProfile": {
  "keda": null,
  "verticalPodAutoscaler": null
}
}

```

9. Get the user credentials to access your cluster

```
az aks get-credentials --resource-group eclipse-che --name eclipse-che --admin
```

```

PS C:\Users\nickl> az aks get-credentials --resource-group eclipse-che --name eclipse-che --admin
The behavior of this command has been altered by the following extension: aks-preview
A different object named eclipse-che already exists in your kubeconfig file.
Overwrite? (y/n): y
A different object named clusterAdmin_eclipse-che_eclipse-che already exists in your kubeconfig file.
Overwrite? (y/n): y
Merged "eclipse-che-admin" as current context in C:\Users\nickl\.kube\config
PS C:\Users\nickl>

```

10. Set kubelogin to use the Microsoft Azure CLI

```
kubelogin convert-kubeconfig -l azurecli
```

```

PS C:\Users\nickl> az aks get-credentials --resource-group eclipse-che --name eclipse-che --admin
The behavior of this command has been altered by the following extension: aks-preview
A different object named eclipse-che already exists in your kubeconfig file.
Overwrite? (y/n): y
A different object named clusterAdmin_eclipse-che_eclipse-che already exists in your kubeconfig file.
Overwrite? (y/n): y
Merged "eclipse-che-admin" as current context in C:\Users\nickl\.kube\config
PS C:\Users\nickl> kubelogin convert-kubeconfig -l azurecli
PS C:\Users\nickl>

```

11. View the pods in the cluster

```
kubectl get pods --all-namespaces
```

```

PS C:\Users\nickl> az aks get-credentials --resource-group eclipse-che --name eclipse-che --admin
The behavior of this command has been altered by the following extension: aks-preview
A different object named eclipse-che already exists in your kubeconfig file.
Overwrite? (y/n): y
A different object named clusterAdmin_eclipse-che_eclipse-che already exists in your kubeconfig file.
Overwrite? (y/n): y
Merged "eclipse-che-admin" as current context in C:\Users\nickl\.kube\config
PS C:\Users\nickl> kubelogin convert-kubeconfig -l azurecli
PS C:\Users\nickl> kubectl get pods --all-namespaces

```

NAMESPACE	NAME	READY	STATUS	RESTARTS	AGE
kube-system	azure-ip-masq-agent-5rccc	1/1	Running	0	16m
kube-system	azure-ip-masq-agent-8n85x	1/1	Running	0	11m
kube-system	azure-ip-masq-agent-g5z5h	1/1	Running	0	16m
kube-system	cloud-node-manager-6lwhd	1/1	Running	0	16m
kube-system	cloud-node-manager-7lxxx	1/1	Running	0	16m
kube-system	cloud-node-manager-spjd2	1/1	Running	0	11m
kube-system	coredns-789789675-6j8pb	1/1	Running	0	15m
kube-system	coredns-789789675-nq6s5	1/1	Running	0	16m
kube-system	coredns-autoscaler-649b947bbd-jqlcw	1/1	Running	0	16m
kube-system	csi-azuredisk-node-6hbz9	3/3	Running	0	11m
kube-system	csi-azuredisk-node-75qwk	3/3	Running	0	16m
kube-system	csi-azuredisk-node-75x6z	3/3	Running	0	16m
kube-system	csi-azurefile-node-5m4mb	3/3	Running	0	11m
kube-system	csi-azurefile-node-ghx8f	3/3	Running	0	16m
kube-system	csi-azurefile-node-npmkm	3/3	Running	0	16m
kube-system	konnectivity-agent-7c76c8f994-5bmhh	1/1	Running	0	16m
kube-system	konnectivity-agent-7c76c8f994-hv7qz	1/1	Running	0	16m
kube-system	kube-proxy-fzrdd	1/1	Running	0	16m
kube-system	kube-proxy-s4ld6	1/1	Running	0	16m
kube-system	kube-proxy-wh2zx	1/1	Running	0	11m
kube-system	metrics-server-5897c748b8-81sv2	2/2	Running	0	9m16s
kube-system	metrics-server-5897c748b8-sjg4x	2/2	Running	0	9m16s

```

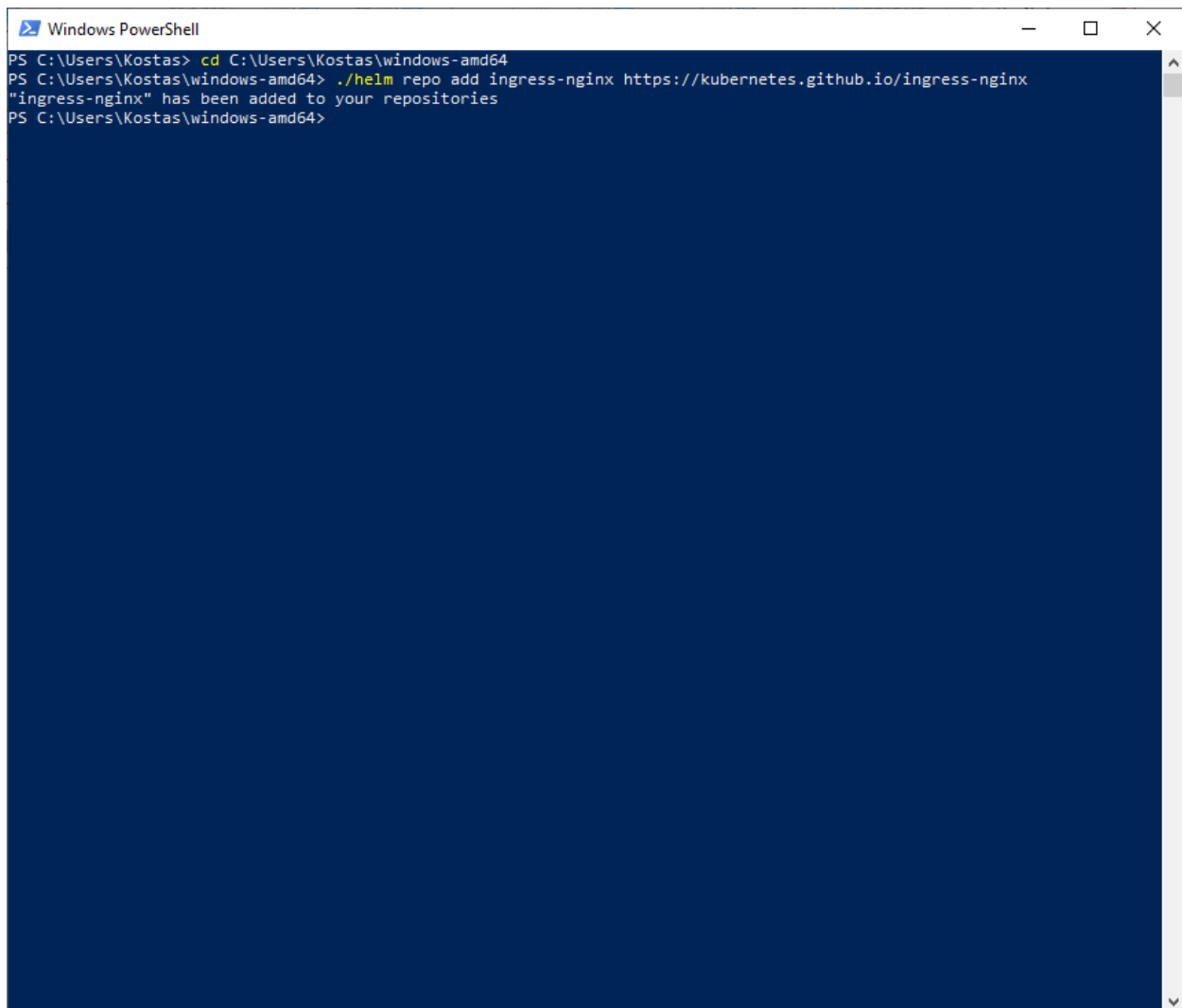
PS C:\Users\nickl>

```

12. Install NGINX Ingress Controller

```
cd C:\Users\Kostas\windows-amd64
```

```
./helm repo add ingress-nginx https://kubernetes.github.io/ingress-nginx
```

A screenshot of a Windows PowerShell terminal window. The window title is "Windows PowerShell". The terminal shows the following commands and output:

```
PS C:\Users\Kostas> cd C:\Users\Kostas\windows-amd64
PS C:\Users\Kostas\windows-amd64> ./helm repo add ingress-nginx https://kubernetes.github.io/ingress-nginx
"ingress-nginx" has been added to your repositories
PS C:\Users\Kostas\windows-amd64>
```

"ingress-nginx" has been added to your repositories

```
./helm repo update
```

```
Windows PowerShell
PS C:\Users\Kostas> cd C:\Users\Kostas\windows-amd64
PS C:\Users\Kostas\windows-amd64> ./helm repo add ingress-nginx https://kubernetes.github.io/ingress-nginx
"ingress-nginx" has been added to your repositories
PS C:\Users\Kostas\windows-amd64> ./helm repo update
Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "ingress-nginx" chart repository
...Successfully got an update from the "gitea-charts" chart repository
Update Complete. 🎉Happy Helming!🎉
PS C:\Users\Kostas\windows-amd64>
```

Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "ingress-nginx" chart repository
...Successfully got an update from the "gitea-charts" chart repository
Update Complete. 🎉Happy Helming!🎉

```
./helm install ingress-nginx ingress-nginx/ingress-nginx --wait --create-namespace --namespace ingress-nginx --set controller.service.annotations."service\.beta\.kubernetes\.io/azure-load-balancer-health-probe-request-path"=/healthz
```



```

PS C:\Users\nickl\windows-amd64> ./helm install ingress-nginx ingress-nginx/ingress-nginx --wait --create-namespace --namespace ingress-nginx --probe-request-path="/healthz"
NAME: ingress-nginx
LAST DEPLOYED: Fri Mar 22 14:59:52 2024
NAMESPACE: ingress-nginx
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
The ingress-nginx controller has been installed.
It may take a few minutes for the load balancer IP to be available.
You can watch the status by running 'kubectl get service --namespace ingress-nginx ingress-nginx-controller --output wide --watch'

An example Ingress that makes use of the controller:
apiVersion: networking.k8s.io/v1
kind: Ingress
metadata:
  name: example
  namespace: foo
spec:
  ingressClassName: nginx
  rules:
  - host: www.example.com
    http:
      paths:
      - pathType: Prefix
        backend:
          service:
            name: exampleService
            port:
              number: 80
        path: /
  # This section is only required if TLS is to be enabled for the Ingress
  tls:
  - hosts:
    - www.example.com
    secretName: example-tls

If TLS is enabled for the Ingress, a Secret containing the certificate and key must also be provided:

apiVersion: v1
kind: Secret
metadata:
  name: example-tls
  namespace: foo
data:
  tls.crt: <base64 encoded cert>
  tls.key: <base64 encoded key>
type: kubernetes.io/tls
PS C:\Users\nickl\windows-amd64>

```

NAME: ingress-nginx
LAST DEPLOYED: Fri Mar 22 14:59:52 2024
NAMESPACE: ingress-nginx
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
The ingress-nginx controller has been installed.
It may take a few minutes for the load balancer IP to be available.
You can watch the status by running 'kubectl get service --namespace ingress-nginx ingress-nginx-controller --output wide --watch'

An example Ingress that makes use of the controller:
apiVersion: networking.k8s.io/v1

```
kind: Ingress
metadata:
  name: example
  namespace: foo
spec:
  ingressClassName: nginx
  rules:
    - host: www.example.com
      http:
        paths:
          - pathType: Prefix
            backend:
              service:
                name: exampleService
                port:
                  number: 80
            path: /
    # This section is only required if TLS is to be enabled for the Ingress
  tls:
    - hosts:
      - www.example.com
      secretName: example-tls
```

If TLS is enabled for the Ingress, a Secret containing the certificate and key must also be provided:

```
apiVersion: v1
kind: Secret
metadata:
  name: example-tls
  namespace: foo
data:
  tls.crt: <base64 encoded cert>
  tls.key: <base64 encoded key>
type: kubernetes.io/tls
```

13. Inspect NGINX Ingress Controller Config Map

```
kubectl describe configmap -n ingress-nginx
```

```

Windows PowerShell
PS C:\Users\nickl\windows-amd64> kubectl describe configmap -n ingress-nginx
Name:          ingress-nginx-controller
Namespace:    ingress-nginx
Labels:        app.kubernetes.io/component=controller
               app.kubernetes.io/instance=ingress-nginx
               app.kubernetes.io/managed-by=Helm
               app.kubernetes.io/name=ingress-nginx
               app.kubernetes.io/part-of=ingress-nginx
               app.kubernetes.io/version=1.10.0
               helm.sh/chart=ingress-nginx-4.10.0
Annotations:  meta.helm.sh/release-name: ingress-nginx
               meta.helm.sh/release-namespace: ingress-nginx

Data
====
allow-snippet-annotations:
----
false

BinaryData
====

Events:
  Type     Reason      Age   From                                     Message
  ----     -
  Normal   CREATE      6m28s  nginx-ingress-controller              ConfigMap ingress-nginx/ingress-nginx-controller

Name:          kube-root-ca.crt
Namespace:    ingress-nginx
Labels:        <none>
Annotations:  kubernetes.io/description:
               Contains a CA bundle that can be used to verify the kube-apiserver when using internal endpoints such as
               the internal service IP or kubern...

Data
====
ca.crt:
----
-----BEGIN CERTIFICATE-----
MIIE6DCCAtCgAwIBAgIQLHSrCpWQFRF8+w3F9tmuSjANBgkqhkiG9w0BAQsFADAN
MQswCQYDVQQDEwJjYTAgaFw0yNDAzMjIxMjI4NTNaGA8yMDU0MDMyMjE5MzE1M1ow
DTELMAkGA1UEAxMCY2EwggiMA0GCSqGSIb3DQEBAQUAA4ICDwAwggIKAoICAQDB
msHsuJ0Aw6S9CRfHW5F4B8uvSSr6bKovr9Nj80rom7//4eE51ywLKH9V+0G/Dh72
XhegAvybkW5BW/o1EnXIX9xT/mYzrBm5w0//D6JNEu0p0/YFizZ1ifXqoqMokhnC
6zeNYnyn/k4PR8kmfFcAe5RAhaE0WV9kWUT61+1NKj8yC18NFah6RCxxDNuWlrNQv
iWuYV1cuozKaH01wgqR+bWa71Zd6G561IhUjv1MqYUNqDNIHyseYoz9LvQf4pJAY
iAcawnEzMiZ/1TP51AGUpDwfXtFP9sRw/cm8fS5/W9GcyAU6MsTg0VGVmQwtA7jW
Tr0sh9x50ws07eUEyujn56IbyzbyFpg16h4wpkDRe/9+LEmAJDtIo6ShQpe7ea8K
TEndLbFKJnnFgSDJC80ReoPgFEnm6v351aB852+o6doNWobIfixsYGGfVKox72x1

```

```

Name:          ingress-nginx-controller
Namespace:    ingress-nginx
Labels:        app.kubernetes.io/component=controller
               app.kubernetes.io/instance=ingress-nginx
               app.kubernetes.io/managed-by=Helm
               app.kubernetes.io/name=ingress-nginx
               app.kubernetes.io/part-of=ingress-nginx
               app.kubernetes.io/version=1.10.0
               helm.sh/chart=ingress-nginx-4.10.0
Annotations:  meta.helm.sh/release-name: ingress-nginx
               meta.helm.sh/release-namespace: ingress-nginx

```

Data

====

allow-snippet-annotations:

false

BinaryData

====

Events:

Type	Reason	Age	From	Message
Normal	CREATE	6m28s	nginx-ingress-controller	ConfigMap ingress-nginx/ingress-nginx-controller

Name: kube-root-ca.crt

Namespace: ingress-nginx

Labels: <none>

Annotations: kubernetes.io/description:

Contains a CA bundle that can be used to verify the kube-apiserver when using internal endpoints such as the internal service IP or kubern...

Data

====

ca.crt:

-----BEGIN CERTIFICATE-----

```

MIIE6DCCAtCgAwIBAgIQLHSrCpWQfRF8+w3F9tmuSjANBgkqhkiG9w0BAQsFADAN
MQswCQYDVQQDEwJyTAgFw0yNDAzMjlxMjI4NTNaGA8yMDU0MDMyMjE5MzE1M1ow
DTELMakGA1UEAxMCY2EwgglMA0GCSqGSIb3DQEBAQUAA4ICDwAwggIKAoICAQDB
msHsuj0Aw6S9CRfHW5F4B8uvSSr6bKoVr9Nj80rom7//4eE51ywLkH9V+0G/Dh72
XhegAvybkw5BW/olEnXIX9xT/mYzrBm5wO//D6JNEu0p0/YFizZ1ifXqoqMokhnC
6zeNYnyn/k4PR8kmffcAe5RAhaEOWV9kWUT6l+iNKj8yCi8Nfah6RCxxDNuWrNQv
iwuYV1cuozKaHQ1wgqR+bWa7lZd6G561lhUjv1MqYUNqDNIHyseYoz9LvQf4pJAY
iAcawnEzMiZ/ITP51AGUpDwfXtFP9sRw/cm8fS5/W9GcyAU6MsTg0VGVmQwtA7jW
TrOsh9x5OWsO7eUEyujn56lbyzbyFpg16h4wpkDRe/9+LEmAJDtlo6ShQpe7ea8K
TEndLdBFKJnnFgSDJCBOReoPgFEnm6v351aB852+o6doNWoblfixsYGGfVKox72x1
ozDqMcMR/HLbkLcbGTKYuan6/K6/Qyh084icBMd+2wSkjD/Tqy5F9mwNvo4w7Yg2
v0xA8b0bkwZhqVGknqyCU8gr+mth5Qzbk+a+6rNvNiUH7SdM3ysGG8cFDohv6O0k
4QSupiwuSFQ+nnfLdItD4Vu13vw9zDF+83bc3a2tQgHwIHajSOhYrllMmnC1z2Kj
oh0eEcH6ryN5CG0r98v9sEGyZ85LNQ15EZmQ8Z9iWQIDAQABo0IwQDAOBgNVHQ8B
Af8EBAMCAqQwDwYDVR0TAQH/BAUwAwEB/zAdBgNVHQ4EFgQUMVWQsOrd54puywyq
ptKYIpdBQ+YwDQYJKoZIhvcNAQELBQADggIBADvdiKVcUr9jIK3Sz0vCGMJtJZ4I
zYMekWOrsYv7T5RQYQ25WKDYRG8v3rLDD/lxvNTtYBfG6Yaa19fw/B3EAGmP1CY

```

cxPzkK/KhM31GgEoDlyq6Dw2IDJEJzsKZMWKA1tp/EPfRuWFa0/7CuxtgdwQfWRH
Niiq9C9P52MtLXOV/w9Y9lvviO/zOmyKxk5suSwT2XMXuiLzPffJL0upSh+7ni06
5JPbYD0kGK5IKYegTm80pynOo+APVNXviQpP+XWy22EkGVsJywmAAj/qKNAqi83O
ikHi1h65K57lxI0ycZltQpUBCkeZVrjHMU1xXyS0TPHtruLYf4taX4Z5QtfvGg8L
hrGTfIJonEe/z+PguVJIfUr2FU6rDN0JDaC7zhL+bCyHZsloIVTvD04rRW+IQpM
UavV2uCknhjOXbrl/6oSPCP/4poRHVaenTpOvHjE72DNYHWkY52UQmpR8oWjo2T4
3BaJtiMa7ckgxFJQXkZaMBPI7RITeX+qgyDZaROZ+yP5dSkIzOhQfTGmNMgnq2oP
m25dwbWQHpnvsO8Xw0j3bT08RKLtIBMaSr1liPdBJu9ptuOZDayG+SbA1xLw8WC1
3O88pgpxQnBWskPNE1CQobwrqoJxcYKuFuhvtRr3OHhXQ7zGnvyapVjTYluztaX1
+Va5TDMT36gr66Hp
-----END CERTIFICATE-----

BinaryData

====

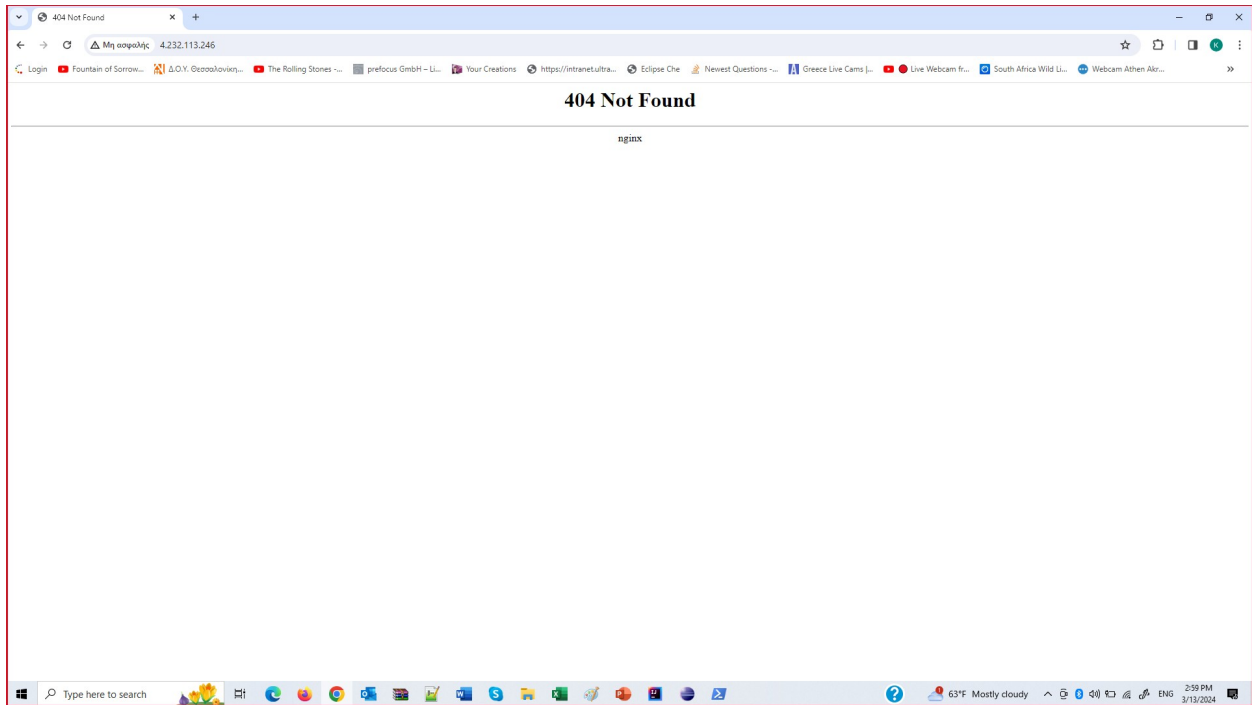
Events: <none>

14. Wait/Check for the external IP

```
kubectl get services ingress-nginx-controller --namespace ingress-nginx
```

```
Windows PowerShell
PS C:\Users\nickl\windows-amd64> kubectl get services ingress-nginx-controller --namespace ingress-nginx
NAME                                TYPE           CLUSTER-IP   EXTERNAL-IP   PORT(S)                                     AGE
ingress-nginx-controller            LoadBalancer   10.0.9.150    4.232.217.40  80:30233/TCP,443:32503/TCP               10m
PS C:\Users\nickl\windows-amd64>
```

```
NAME                                TYPE           CLUSTER-IP   EXTERNAL-IP   PORT(S)                                     AGE
ingress-nginx-controller            LoadBalancer   10.0.9.150    4.232.217.40  80:30233/TCP,443:32503/TCP               10m
```



15. Install the cert-manager

```
cd C:\Users\Kostas\windows-amd64
```

```
./helm repo add jetstack https://charts.jetstack.io
```

```
Windows PowerShell
PS C:\Users\Kostas\windows-amd64> ./helm repo add jetstack https://charts.jetstack.io
"jetstack" has been added to your repositories
PS C:\Users\Kostas\windows-amd64>
```

"jetstack" has been added to your repositories

```
./helm repo update
```



```
Windows PowerShell
PS C:\Users\Kostas\windows-amd64> ./helm repo add jetstack https://charts.jetstack.io
"jetstack" has been added to your repositories
PS C:\Users\Kostas\windows-amd64> ./helm repo update
Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "ingress-nginx" chart repository
...Successfully got an update from the "jetstack" chart repository
...Successfully got an update from the "gitea-charts" chart repository
Update Complete. 🎉Happy Helming!🎉
PS C:\Users\Kostas\windows-amd64>
```

Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "ingress-nginx" chart repository
...Successfully got an update from the "jetstack" chart repository
...Successfully got an update from the "gitea-charts" chart repository
Update Complete. 🎉Happy Helming!🎉

```
./helm install cert-manager jetstack/cert-manager --wait --create-namespace  
--namespace cert-manager --set installCRDs=true
```

```
Windows PowerShell
Hang tight while we grab the latest from your chart repositories...
...Successfully got an update from the "jetstack" chart repository
...Successfully got an update from the "ingress-nginx" chart repository
Update Complete. 🎉Happy Helming!🎉
PS C:\Users\nickl\windows-amd64> ./helm install cert-manager jetstack/cert-manager --wait --create-namespace --namespace cert-manager --set installCRDs=true
NAME: cert-manager
LAST DEPLOYED: Fri Mar 22 15:23:26 2024
NAMESPACE: cert-manager
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
cert-manager v1.14.4 has been deployed successfully!

In order to begin issuing certificates, you will need to set up a ClusterIssuer
or Issuer resource (for example, by creating a 'letsencrypt-staging' issuer).

More information on the different types of issuers and how to configure them
can be found in our documentation:

https://cert-manager.io/docs/configuration/

For information on how to configure cert-manager to automatically provision
Certificates for Ingress resources, take a look at the `ingress-shim`
documentation:

https://cert-manager.io/docs/usage/ingress/
PS C:\Users\nickl\windows-amd64>
```

NAME: cert-manager
LAST DEPLOYED: Fri Mar 22 15:23:26 2024
NAMESPACE: cert-manager
STATUS: deployed
REVISION: 1
TEST SUITE: None
NOTES:
cert-manager v1.14.4 has been deployed successfully!

In order to begin issuing certificates, you will need to set up a ClusterIssuer or Issuer resource (for example, by creating a 'letsencrypt-staging' issuer).

More information on the different types of issuers and how to configure them

can be found in our documentation:

<https://cert-manager.io/docs/configuration/>

For information on how to configure cert-manager to automatically provision Certificates for Ingress resources, take a look at the `ingress-shim` documentation:

<https://cert-manager.io/docs/usage/ingress/>

16. Inspect cert-manager Config Map

```
kubectl describe configmap -n cert-manager
```

```
Windows PowerShell
https://cert-manager.io/docs/usage/ingress/
PS C:\Users\nickl\windows-amd64> kubectl describe configmap -n cert-manager
Name:         kube-root-ca.crt
Namespace:    cert-manager
Labels:       <none>
Annotations:  kubernetes.io/description:
              Contains a CA bundle that can be used to verify the kube-apiserver when using internal endpoints such as
              the internal service IP or kubern...

Data
====
ca.crt:
----
-----BEGIN CERTIFICATE-----
MIIE6DCCATCgAwIBAgIQLHsrCpWQfRF8+w3F9tmuSjANBgkqhkiG9w0BAQsFADAN
MQswCQYDVQQDEwJjYTAfFw0yMDA2MjI0MjI0MjI0MjI0MjI0MjI0MjI0MjI0MjI0
DTElMAkGA1UEAxMCY2EwggI1MA0GCSCqGSIb3DQEBAQUAA4ICDwAwggIKAoICAQDB
msHsuj0Aw6S9CRfHW5F4B8UvSSr6bKoVr9Nj80rom7//4eE51ywLkH9V+0G/Dh72
XhegAvybkw5BW/o1EnXIX9xT/mYzrBm5w0//D6JNEu0p0/YFizZ1ifXqoqMokhnC
6zeNYnyn/k4PR8kmffcAe5RAhaE0WV9kWUT61+1NKj8yC18NFah6RCxxDNuWrNQv
iWuYV1cuozKaHQ1wqR+bW71Zd6G561IhUjv1MqYUNqDNIHyseYoz9LvQf4pJAY
iAcawnEzMiZ/1TP51AGUpDwFXtFP9sRw/cm8f55/W9GcyAU6MsTg0VGVmQwrtA7jW
Tr0sh9x50Ws07eUEyujn56IbyzbyFpg16h4wpkDRe/9+LEmAJDtIo6ShQpe7ea8K
TEndBfKJnnFgSDJCB0ReoPgFEnm6v351aB852+o6doNwobIfixsYGGfVKox72x1
ozDqMcMR/HLbkLcbGTKYuan6/K6/Qyh084icBMd+2wSkjD/Tqy5F9mmNvo4w7Yg2
v0xA8b0bkWZhqVGknqyCU8gr+mtH5Qzba+a6nNvNiUH7SdM3ysGG8cFD0Hv600k
4QSupiwuSFQ+nnfLdtD4Vu13vw9zDF+83bc3a2tQgHwIHaJsohYr1LMmC1z2Kj
oh0eEch6ryN5CG0r98v9sEGyZ85LNQ15EZmQ8Z9iWQIDAQABooIwQDA0BgNVHQ8B
Af8EBAMAcQwDwYDVR0TAQH/BAUwAwEB/zAdBgNVHQ4EFgQUUMVWQsOrd54puywyq
ptKYIpdBQ+YwDQYJKoZIhvcNAQELBQADggIBADvdiKvC9j1K3S5z0vCGMJtJZ41
zYMekW0rsYv7T5RQYQ25WkDYRG8v3rflDD/1xvNTtYBfG6Yaa19fw/B3EAGmP1CY
cxPzkk/KhM31GgEoD1yq6Dw21DJEJzskZMwKA1tp/EPFRuWFa0/7CuxtgdwQfWRH
Niiq9C9P52MtLX0V/w9Y9Ivvi0/z0myKxk5suSwT2XMXuizPFFJL0upSh+7ni06
5JPbYD0kGK51KYegTm80pyn0o+APVNXviQpP+XWY22EkGVsJywmAAj/qKNAqj830
ikHi1h65K571xI0ycZ1tQpUBCKeZVrjHMU1xXyS0TPHtruLYf4taX4Z5QtfGg8L
hrGTTrfIJonEe/z+PguVJlFUr2FU6rDN0JDaC7zhL+bCyHzs1oIVTvd04rRhwIQpM
UavV2uCKnhj0XbrI/6oSPCP/4poRHVaenTp0vHjE72DNYHwky52UQmpR80wjo2T4
3BaJtiMa7ckgxFJQXkZaMBP17RITeX+qgyDZaROZ+yP5dSkIz0hQfTGmVMgnq2oP
m25dwbWQhPNvs08Xw0j3bT08RKLtIBMaSr1IiPdBju9ptu0ZDAyG+SbA1xLw8WC1
3088pgpxQnBwskPNE1CQobwrqoJxcYKuFuhvtr30HhXQ7zGnvypjTY1uztaX1
+Va5TDMT36gr66Hp
-----END CERTIFICATE-----

BinaryData
====

Events: <none>
PS C:\Users\nickl\windows-amd64>
```

Name: kube-root-ca.crt

Namespace: cert-manager

Labels: <none>

Annotations: kubernetes.io/description:

Contains a CA bundle that can be used to verify the kube-apiserver when using internal endpoints such as the internal service IP or kubern...

Data

====

ca.crt:

-----BEGIN CERTIFICATE-----

```
MIIE6DCCAtCgAwIBAgIQLHSrCpWQfRF8+w3F9tmuSjANBgkqhkiG9w0BAQsFADAN
MQswCQYDVQQDEwJjYTAgaGw0yNDAzMjlxMjI4NTNaGA8yMDU0MDMyMjEzMzI1M1ow
DTELMAkGA1UEAxMCY2EwgglIEMA0GCSqGSIb3DQEBAQUAA4ICDwAwggIKAoICAQDB
msHsuj0Aw6S9CRfHW5F4B8uvSSr6bKoVr9Nj80rom7//4eE51ywLkH9V+0G/Dh72
XhegAvybkw5BW/olEnXIX9xT/mYzrBm5wO//D6JNEu0p0/YFizZ1ifXqoqMokhnC
6zeNYnyn/k4PR8kmffcAe5RAhaEOWV9kWUT6l+iNKj8yCi8Nfah6RCxxDNuWrNQv
iwuYV1cuozKaHQ1wgqR+bWa7IZd6G561lhUjv1MqYUNqDNIHyseYoz9LvQf4pJAY
iAcawnEzMiZ/ITP51AGUpDwfXtFP9sRw/cm8fS5/W9GcyAU6MsTg0VGVmQwtA7jW
TrOsh9x5OWsO7eUEyujn56lbyzbyFpg16h4wpkDRe/9+LEmAJDtlo6ShQpe7ea8K
TEndLdBFKJnnFgSDJCBOReoPgFEnm6v351aB852+o6doNWoblfixsYGGfVKox72x1
ozDqMcMR/HLbkLcbGTKYuan6/K6/Qyh084icBMd+2wSkjD/Tqy5F9mwNvo4w7Yg2
v0xA8b0bkwZhqVgknqyCU8gr+mth5Qzbk+a+6rNvNiUH7SdM3ysGG8cFDoHv6O0k
4QSupiwuSFQ+nnfLdltD4Vu13vw9zDF+83bc3a2tQgHwIHajSOhyrllMmnC1z2Kj
oh0eEcH6ryN5CG0r98v9sEGyZ85LNQ15EZmQ8Z9iWQIDAQABo0lwQDAOBgNVHQ8B
Af8EBAMCAqQwDwYDVR0TAQH/BAUwAwEB/zAdBgNVHQ4EFgQUMVWQsOrd54puywyq
ptKYlpdbQ+YwDQYJKoZIhvcNAQELBQADggIBADvdiKVcUr9jIK3Sz0vCGMJtJZ4l
zYMekWOrsYv7T5RQYQ25WKDYRG8v3rfLDD/lxvNTtYBfG6Yaa19fw/B3EAGmP1CY
cxPzkK/KhM31GgEoDlyq6Dw2IDJEJzsKZMWKA1tp/EPfRuWfa0/7CuxtgdwQfWRH
Niiq9C9P52MtLXOV/w9Y9lvviO/zOmyKxk5suSwT2XMXuiLzPffJL0upSh+7ni06
5JPbYD0kGK5IKYegTm80pynOo+APVNXviQpP+XWY22EkGVsJywMAAj/qKNAqi83O
ikHi1h65K57lxI0ycZltQpUBCkeZVrjHMU1xXyS0TPHtruLYf4taX4Z5QtfvGg8L
hrGTfJJonEe/z+PguVJlfUr2FU6rDN0JDaC7zhL+bCyHZsloIVTvd04rRW+iQpM
UavV2uCknhjOXbrl/6oSPCP/4poRHVaenTpOvHjE72DNYHWkY52UQmpR8oWjo2T4
3BaJtiMa7cKgxFJQXkZaMBPI7RITeX+qgyDZaROZ+yP5dSkIzOhQfTGmNMgnq2oP
m25dwbWQhPNvsO8Xw0j3bT08RKLtIBMaSr1iPdBJu9ptuOZDAyG+SbA1xLw8WC1
3O88pgpxQnBWskPNE1CQobwrqoJxcYKuFuhvtRr3OHhXQ7zGnvyapVjTYluztaX1
+Va5TDMT36gr66Hp
```

-----END CERTIFICATE-----

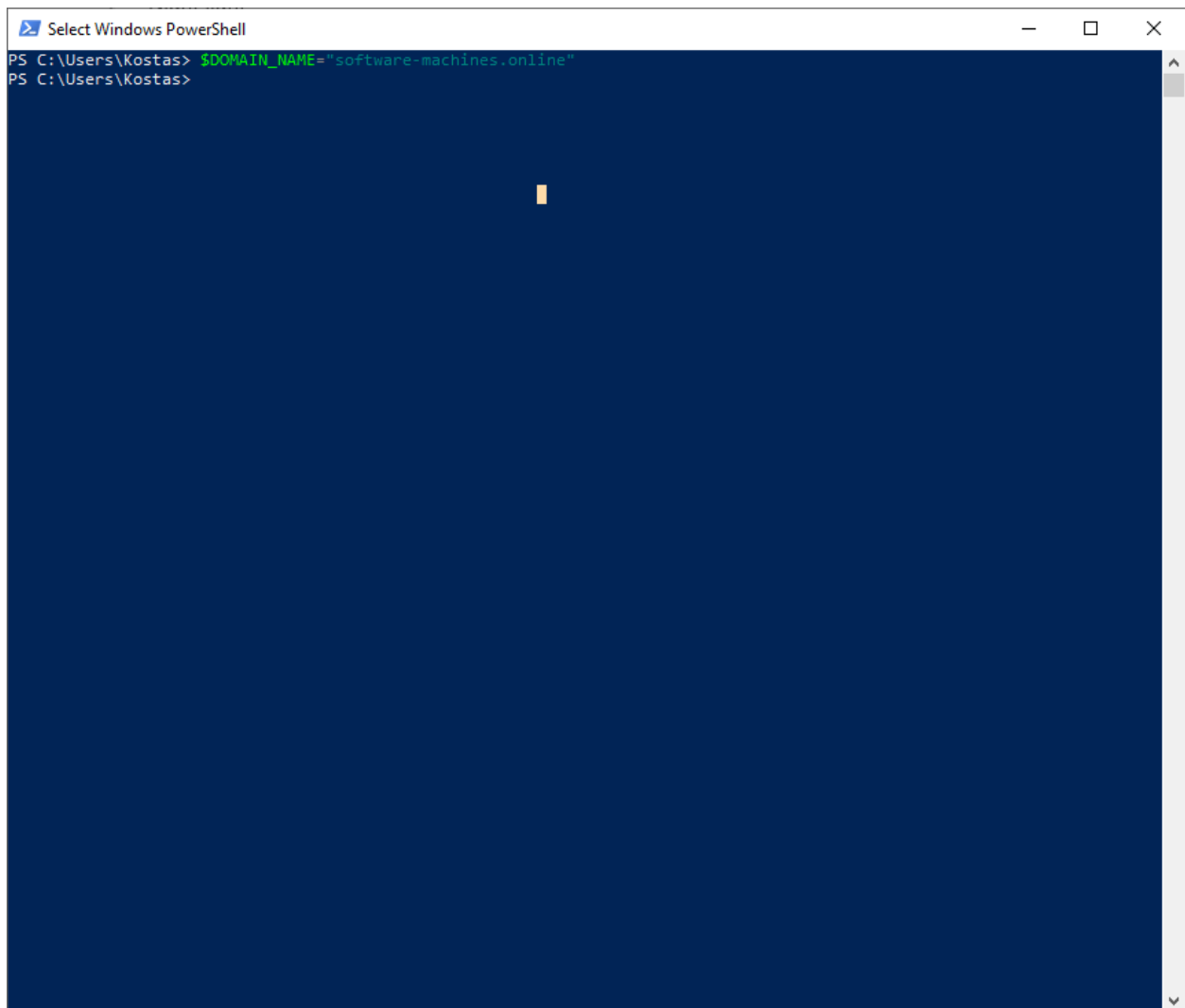
BinaryData

====

Events: <none>

17. Define the domain name

```
$DOMAIN_NAME="software-machines.online"
```

A screenshot of a Windows PowerShell terminal window. The window title is "Select Windows PowerShell". The terminal shows the command `$DOMAIN_NAME="software-machines.online"` being entered and executed. The prompt `PS C:\Users\Kostas>` is visible before and after the command. The terminal background is dark blue with a light blue cursor.

```
PS C:\Users\Kostas> $DOMAIN_NAME="software-machines.online"
PS C:\Users\Kostas>
```

18. Create a DNS zone

```
az network dns zone create --resource-group eclipse-che --name $DOMAIN_NAME
```

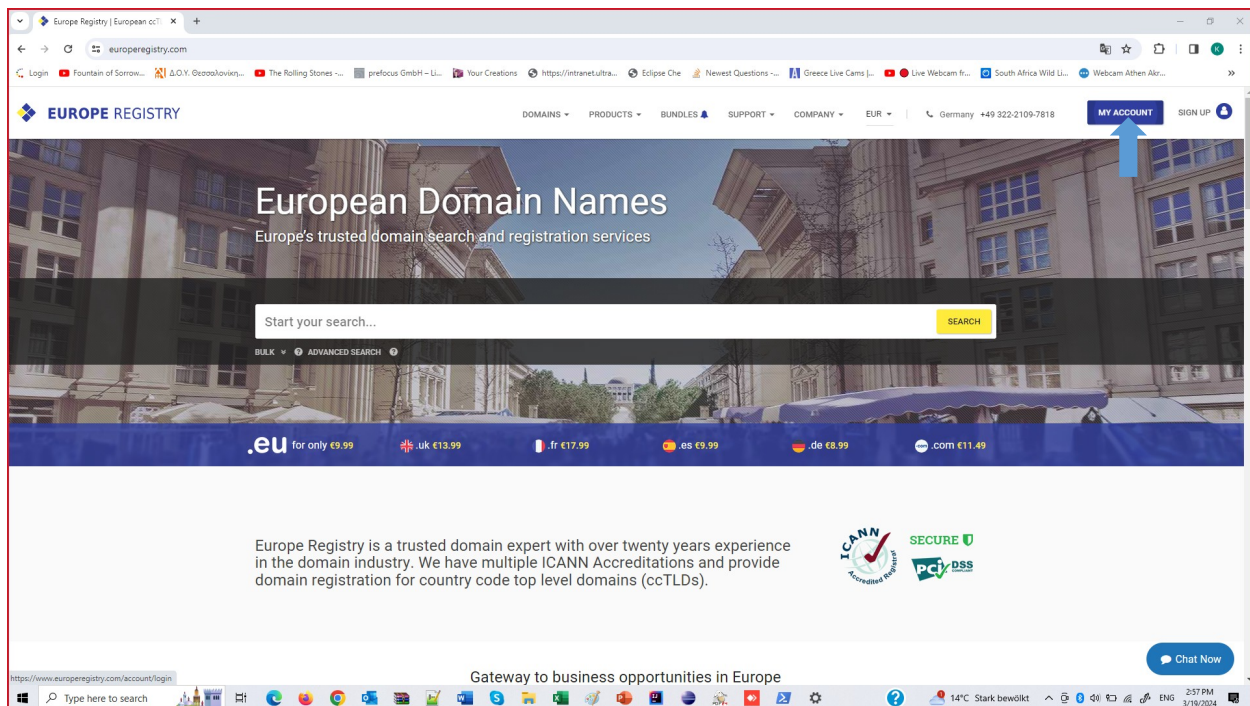
```
Windows PowerShell
PS C:\Users\nickl\windows-amd64> $DOMAIN_NAME="software-machines.online"
PS C:\Users\nickl\windows-amd64> $DOMAIN_NAME
software-machines.online
PS C:\Users\nickl\windows-amd64> az network dns zone create --resource-group eclipse-che --name $DOMAIN_NAME
{
  "etag": "3634f783-2a77-4260-8ae5-899cfc4e18b8",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnszones/software-machines.online",
  "location": "global",
  "maxNumberOfRecordSets": 10000,
  "name": "software-machines.online",
  "nameServers": [
    "ns1-36.azure-dns.com.",
    "ns2-36.azure-dns.net.",
    "ns3-36.azure-dns.org.",
    "ns4-36.azure-dns.info."
  ],
  "numberOfRecordSets": 2,
  "resourceGroup": "eclipse-che",
  "tags": {},
  "type": "Microsoft.Network/dnszones",
  "zoneType": "Public"
}
PS C:\Users\nickl\windows-amd64>
```

```
{
  "etag": "3634f783-2a77-4260-8ae5-899cfc4e18b8",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/
providers/Microsoft.Network/dnszones/software-machines.online",
  "location": "global",
  "maxNumberOfRecordSets": 10000,
  "name": "software-machines.online",
  "nameServers": [
    "ns1-36.azure-dns.com.",
    "ns2-36.azure-dns.net.",
    "ns3-36.azure-dns.org.",
    "ns4-36.azure-dns.info."
  ],
  "numberOfRecordSets": 2,
  "resourceGroup": "eclipse-che",
  "tags": {},
```

```
"type": "Microsoft.Network/dnszones",  
"zoneType": "Public"  
}
```

19. Configure the name servers with the registrar Europeregistry of the domain

<https://www.euoperegistry.com/>



Account Login | Europe Registry

europeregistry.com/account/login

EUROPE REGISTRY

DOMAINS | PRODUCTS | BUNDLES | SUPPORT | COMPANY | EUR | Germany +49 322-2109-7618

MY ACCOUNT SIGN UP

Account Login

Username
bjirmann

Password

LOGIN

Domain Name Management
Your simple one stop solution.

- Real time registration for over 110+ global domains
- Free domain parking
- Free real time DNS hosting
- Local presence option

Don't have an account yet? [SIGN UP](#)

Account assistance
Forgotten password? [Reset your password.](#)
Username reminder. [Retrieve username.](#)

Service Login
Webhosting management. [Access your hosting](#)
Webmail login. [Check your email.](#)

Chat Now

Type here to search

14°C Stark bewölkt

2:58 PM 3/19/2024

Europe Registry Dashboard

europeregistry.com/dashboard/index

EUROPE REGISTRY

Dashboard

Welcome bjirmann

Credit (EUR) €0

Call Credit (EUR) €0

Your Domains **4/0** Expiring (60 days)

Your Hosting 0/0 Expiring (90 days)

Phone Numbers 0/0 Expiring (90 days)

History 0 View

Register New Domains

Start Your Search Here

Standard Search | Bulk Search | Advanced Search

Recent Transactions

Product Name	Status
waternomics.eu	completed
software-machines.online	completed
software-machines.online	completed
software-machines.online	completed
software-machines.online	completed

MY DOMAINS

RENEW MY DOMAINS

TRANSFER DOMAINS

NEW EMAIL HOSTING

SETUP WEB HOSTING

MY PHONE NUMBERS

Activity

Your Top 5 Domains

Registered

Expiring

Chat Now

Type here to search

Baustelle in E35 / a67

2:59 PM 3/19/2024

Europe Registry Dashboard

My Domains

Your Domains: 4/0 Expiring (60 days) | History: 0 View

REGISTER NEW DOMAINS | RENEW DOMAIN | BULK DNS EDIT | ASSIGN CATEGORY | UNASSIGN CATEGORY | ADD PRIVACY

My Domains

Bulk Actions [APPLY] Search [Q] Show: 10

Domain Name	Registrant	Expiry Renewal Date	Features	Category	Edit
<input type="checkbox"/> software-machines.online	Brigitte Jirmann	2024-11-18	delegated		
<input type="checkbox"/> software-machines.com	Brigitte Jirmann	2024-11-18	Parked		
<input type="checkbox"/> waternomics.eu	Brigitte Jirmann	2028-01-12	dns forwarding		
<input type="checkbox"/> ultra4.eu	Jesse van Slooten	2024-06-20	delegated		

Showing 1 to 4 of 4 entries

Need Help? Contact Support

Europe Registry Dashboard

Domain Info

software-machines.online

SUMMARY | DNS SETTINGS | CONTACTS | HISTORY

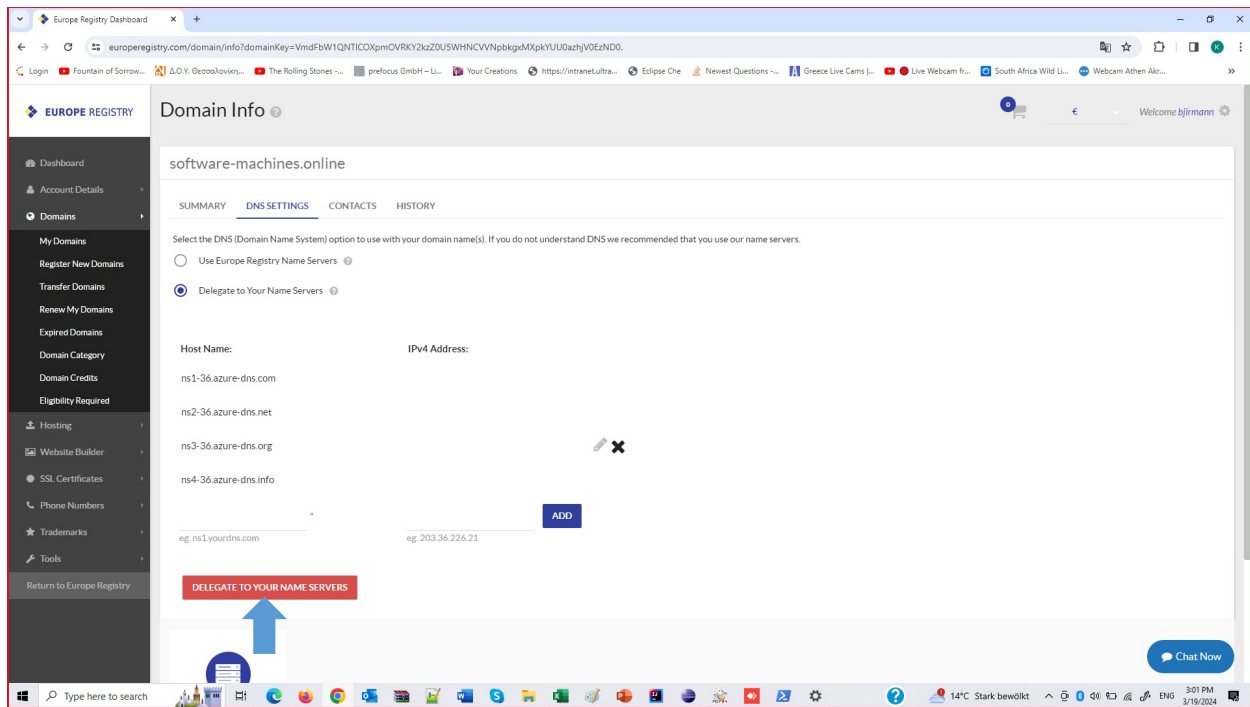
Active | Registered Date: 2020-11-20 | Expiry Date: 2024-11-18 | RENEW

Registrant: Brigitte Jirmann | EDIT | Auto Renew: [OFF]

Name Server: ns1-08.azure-dns.com | ns2-08.azure-dns.net | ns3-08.azure-dns.org | ns4-08.azure-dns.info | EDIT | Whois Privacy: Protected | DISABLE

Domain Auth Code: The verification code will be sent to info@ultra4.eu | GET AUTH CODE

Setup Web & Email Hosting



20. Create two DNS record sets

```
kubectl get service -n ingress-nginx ingress-nginx-controller -o=jsonpath='{.status.loadBalancer.ingress[0].ip}'
```

```
Windows PowerShell
PS C:\Users\nickl\windows-amd64> $DOMAIN_NAME="software-machines.online"
PS C:\Users\nickl\windows-amd64> $DOMAIN_NAME
software-machines.online
PS C:\Users\nickl\windows-amd64> az network dns zone create --resource-group eclipse-che --name $DOMAIN_NAME
{
  "etag": "3634f783-2a77-4260-8ae5-899cfc4e18b8",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnszones/software-machines.online",
  "location": "global",
  "maxNumberOfRecordSets": 10000,
  "name": "software-machines.online",
  "nameServers": [
    "ns1-36.azure-dns.com.",
    "ns2-36.azure-dns.net.",
    "ns3-36.azure-dns.org.",
    "ns4-36.azure-dns.info."
  ],
  "numberOfRecordSets": 2,
  "resourceGroup": "eclipse-che",
  "tags": {},
  "type": "Microsoft.Network/dnszones",
  "zoneType": "Public"
}
PS C:\Users\nickl\windows-amd64> kubectl get service -n ingress-nginx ingress-nginx-controller -o=jsonpath='{.status.loadBalancer.ingress[0].ip}'
4.232.217.40
PS C:\Users\nickl\windows-amd64>
```

4.232.217.40

```
az network dns record-set a add-record --resource-group eclipse-che --zone-name $DOMAIN_NAME --record-set-name "*" --ipv4-address $(kubectl get service -n ingress-nginx ingress-nginx-controller -o=jsonpath='{.status.loadBalancer.ingress[0].ip}')
```

```

Windows PowerShell
PS C:\Users\nickl\windows-amd64> az network dns zone create --resource-group eclipse-che --name $DOMAIN_NAME
{
  "etag": "3634f783-2a77-4260-8ae5-899cfc4e18b8",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnszones/software-machines.online",
  "location": "global",
  "maxNumberOfRecordSets": 10000,
  "name": "software-machines.online",
  "nameServers": [
    "ns1-36.azure-dns.com.",
    "ns2-36.azure-dns.net.",
    "ns3-36.azure-dns.org.",
    "ns4-36.azure-dns.info."
  ],
  "numberOfRecordSets": 2,
  "resourceGroup": "eclipse-che",
  "tags": {},
  "type": "Microsoft.Network/dnszones",
  "zoneType": "Public"
}
PS C:\Users\nickl\windows-amd64> kubectl get service -n ingress-nginx ingress-nginx-controller -o=jsonpath='{.status.loadBalancer.ingress[0].ip}'
4.232.217.40
PS C:\Users\nickl\windows-amd64> az network dns record-set a add-record --resource-group eclipse-che --zone-name $DOMAIN_NAME --record-set-name "*" --ipv4-address $(kubectl get service -n ingress-nginx ingress-nginx-controller -o=jsonpath='{.status.loadBalancer.ingress[0].ip}')
{
  "ARecords": [
    {
      "ipv4Address": "4.232.217.40"
    }
  ],
  "TTL": 3600,
  "etag": "5be8a526-2c1e-4b14-a2a6-638ad054bc37",
  "fqdn": "*.software-machines.online.",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnszones/software-machines.online/A/*",
  "name": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "eclipse-che",
  "targetResource": {},
  "type": "Microsoft.Network/dnszones/A"
}
PS C:\Users\nickl\windows-amd64>

```

```

{
  "ARecords": [
    {
      "ipv4Address": "4.232.217.40"
    }
  ],
  "TTL": 3600,
  "etag": "5be8a526-2c1e-4b14-a2a6-638ad054bc37",
  "fqdn": "*.software-machines.online.",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnszones/software-machines.online/A/*",
  "name": "*",
  "provisioningState": "Succeeded",
  "resourceGroup": "eclipse-che",
  "targetResource": {},
  "type": "Microsoft.Network/dnszones/A"
}

```

}

```
az network dns record-set a add-record --resource-group eclipse-che --zone-name $DOMAIN_NAME --record-set-name "@" --ipv4-address $(kubectl get service -n ingress-nginx ingress-nginx-controller -o=jsonpath='{.status.loadBalancer.ingress[0].ip}')
```

```
{
  "ARecords": [
    {
      "ipv4Address": "4.232.217.40"
    }
  ],
  "TTL": 3600,
  "etag": "07c5f937-d218-4fb4-8e8c-12a83eae232a",
  "fqdn": "software-machines.online.",
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnszones/software-machines.online/A/@",
  "name": "@",
  "provisioningState": "Succeeded",
  "resourceGroup": "eclipse-che",
  "targetResource": {},
  "type": "Microsoft.Network/dnszones/A"
}
```

software-machines.online
DNS zone

Search resources, services, and docs (G+)

Record set + Child zone ↑ Import ↓ Export Delete zone → Move ↙ Refresh

Resource group (move) : [eclipse-che](#)
 Subscription (move) : [Azure-subscription_1](#)
 Subscription ID : a559df32-05ab-46a8-bbfe-5171eda2bbde

Name server 1 : ns1-36.azure-dns.com.
 Name server 2 : ns2-36.azure-dns.net.
 Name server 3 : ns3-36.azure-dns.org.
 Name server 4 : ns4-36.azure-dns.info.

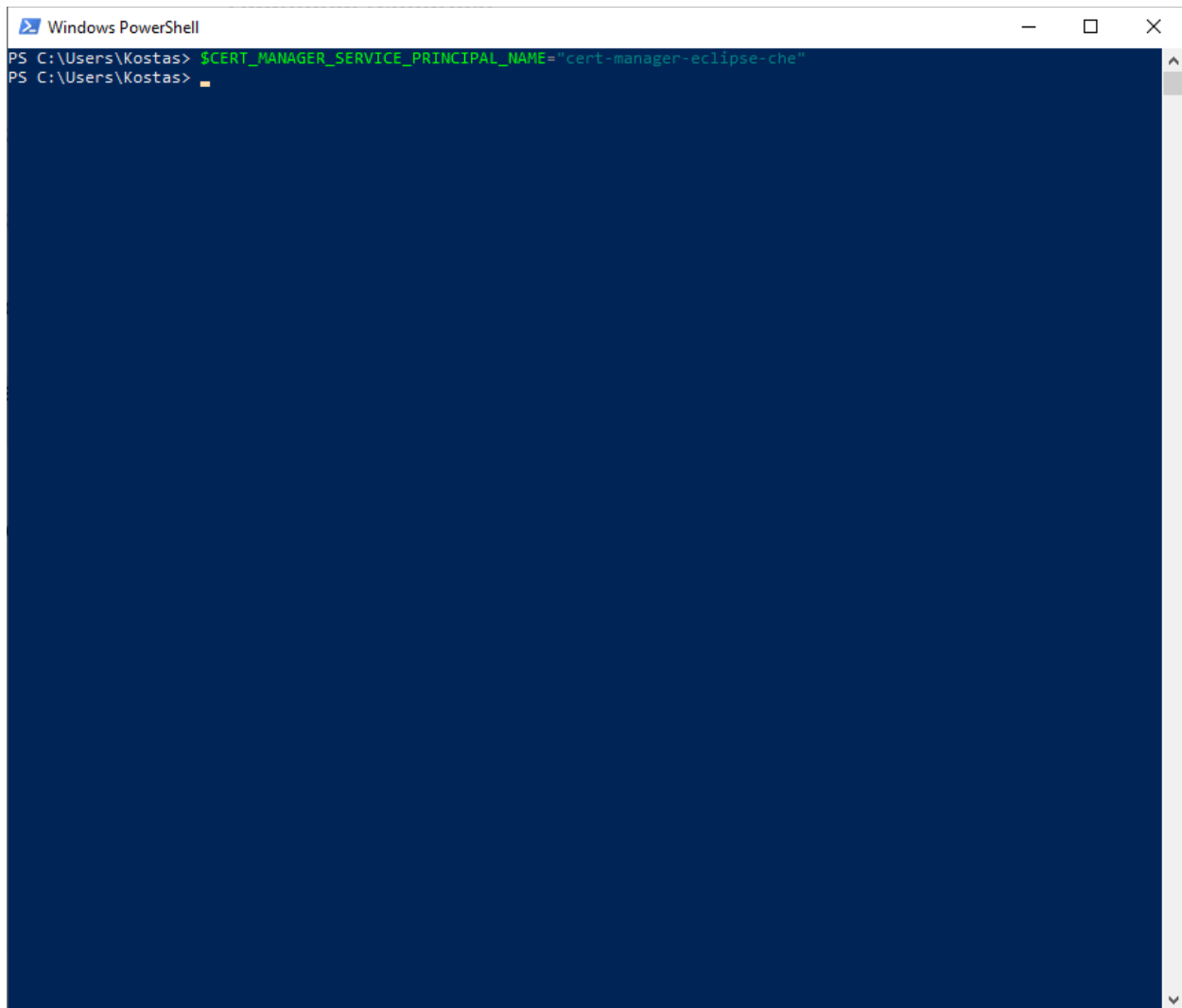
Tags (edit) : [Add tags](#)

You can search for record sets that have been loaded on this page. If you don't see what you're looking for, you can try scrolling to allow more record sets to load.

Name	Type	TTL	Value	Alias resource type	Alias target
@	A	3600	4.232.217.40		...
@	NS	172800	ns1-36.azure-dns.com. ns2-36.azure-dns.net. ns3-36.azure-dns.org. ns4-36.azure-dns.info.		...
@	SOA	3600	Email: azuredns-hostmaster... Host: ns1-36.azure-dns.com. Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1		...
*	A	3600	4.232.217.40		...

21. Create a service principal

```
$CERT_MANAGER_SERVICE_PRINCIPAL_NAME="cert-manager-eclipse-che"
```



```
Windows PowerShell
PS C:\Users\Kostas> $CERT_MANAGER_SERVICE_PRINCIPAL_NAME="cert-manager-eclipse-che"
PS C:\Users\Kostas> _
```

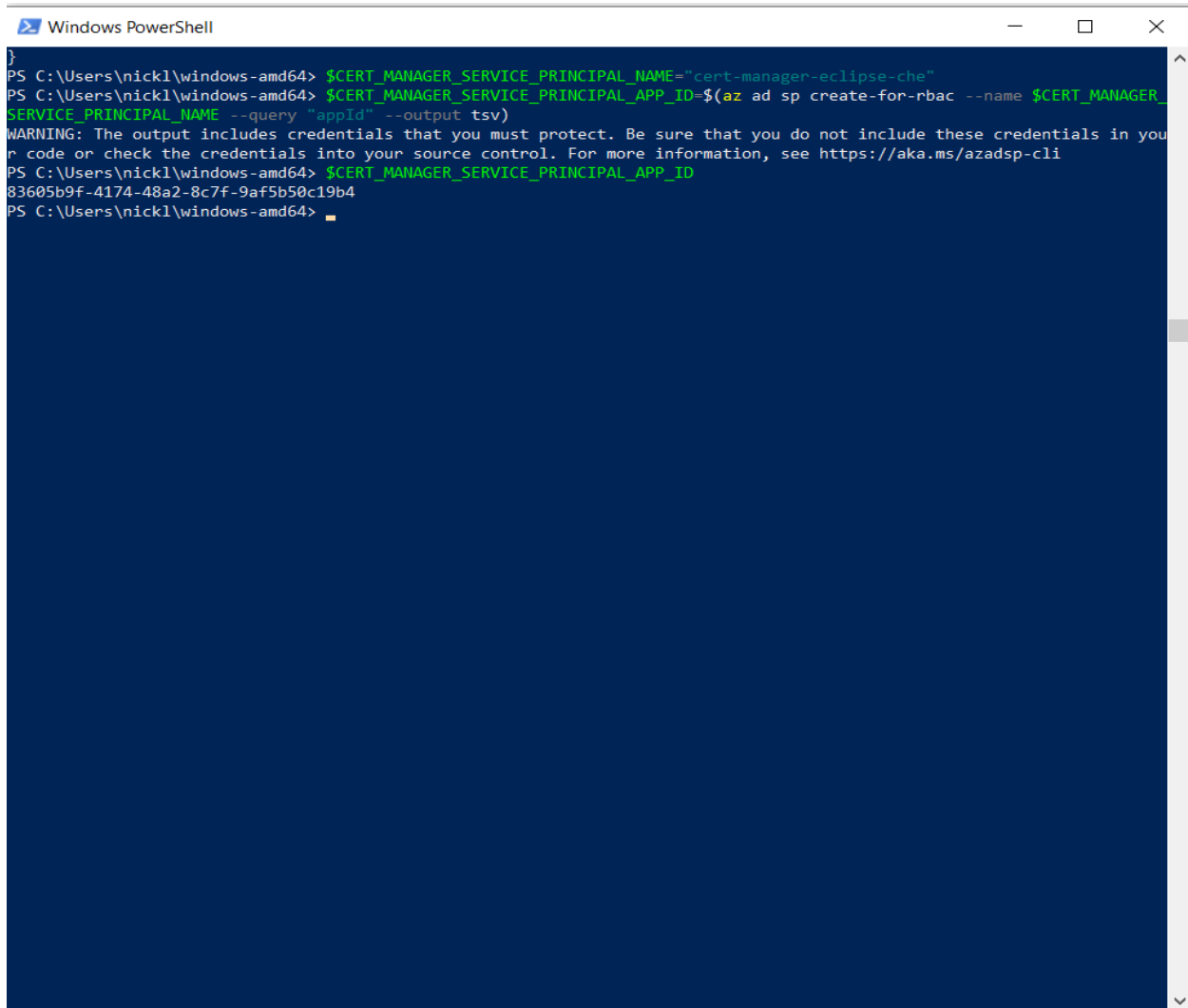
```
$CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID=$(az ad sp create-for-rbac --name  
$CERT_MANAGER_SERVICE_PRINCIPAL_NAME --query "appId" --output tsv)
```

```
Windows PowerShell
}
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_NAME="cert-manager-eclipse-che"
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID=$(az ad sp create-for-rbac --name $CERT_MANAGER_
SERVICE_PRINCIPAL_NAME --query "appId" --output tsv)
WARNING: The output includes credentials that you must protect. Be sure that you do not include these credentials in you
r code or check the credentials into your source control. For more information, see https://aka.ms/azadsp-cli
PS C:\Users\nickl\windows-amd64>
```

WARNING: The output includes credentials that you must protect. Be sure that you do not include these credentials in your code or check the credentials into your source control. For more information, see <https://aka.ms/azadsp-cli>

Note: In previous installation there was a warning about an existing application instance with an id ending at: ...2593 . Now the “we will patch it” warning is gone.

\$CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID is 83605b9f-4174-48a2-8c7f-9af5b50c19b4



```
Windows PowerShell
}
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_NAME="cert-manager-eclipse-che"
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID=$(az ad sp create-for-rbac --name $CERT_MANAGER_SERVICE_PRINCIPAL_NAME --query "appId" --output tsv)
WARNING: The output includes credentials that you must protect. Be sure that you do not include these credentials in your code or check the credentials into your source control. For more information, see https://aka.ms/azadsp-cli
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID
83605b9f-4174-48a2-8c7f-9af5b50c19b4
PS C:\Users\nickl\windows-amd64>
```

22. Give access to the DNS zone

```
az role assignment create --assignee $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID
--scope $(az network dns zone show --name $DOMAIN_NAME --resource-group
eclipse-che --query "id" --output tsv) --role "DNS Zone Contributor"
```

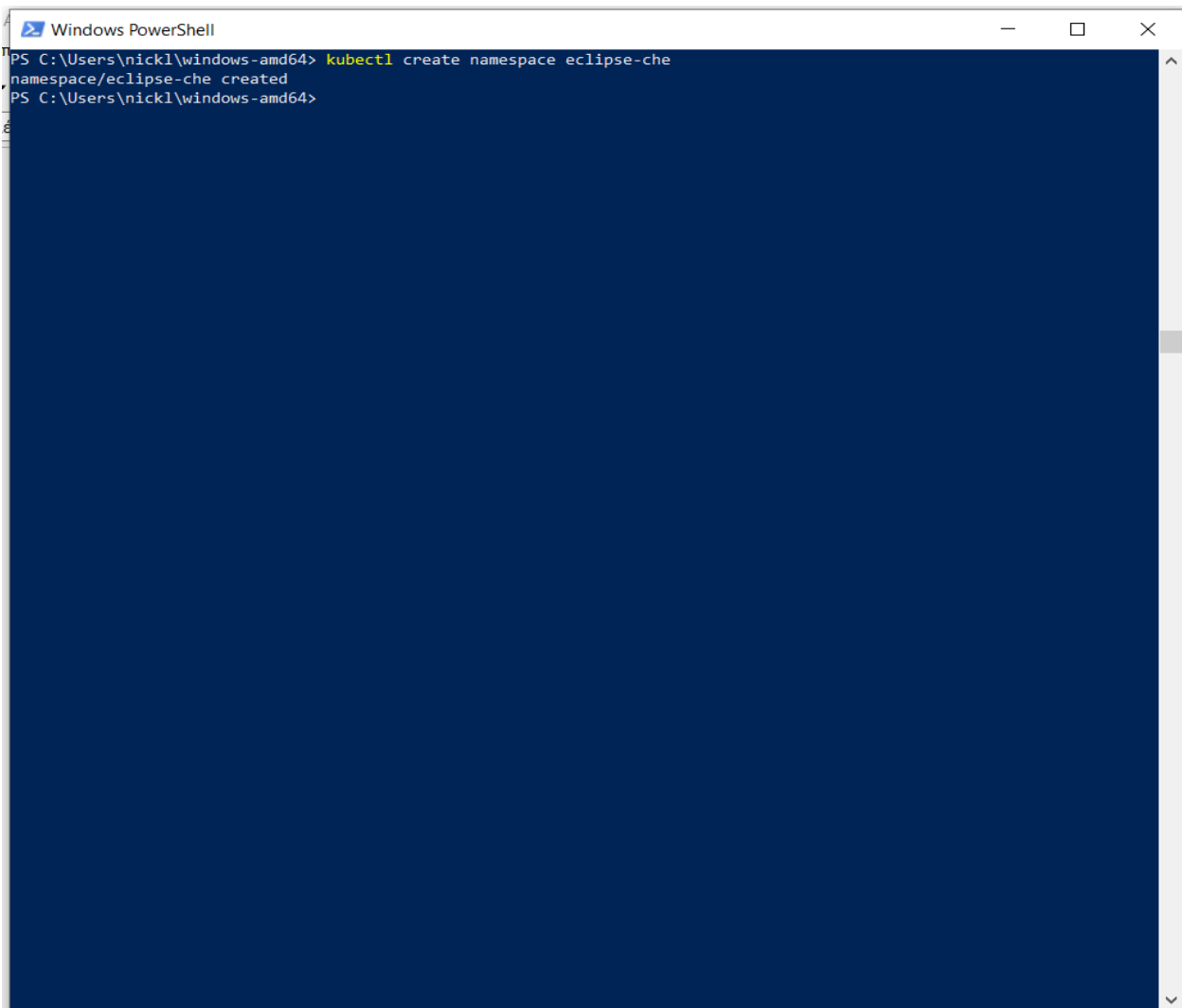
```
Windows PowerShell
}
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_NAME="cert-manager-eclipse-che"
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID=$(az ad sp create-for-rbac --name $CERT_MANAGER_
SERVICE_PRINCIPAL_NAME --query "appId" --output tsv)
WARNING: The output includes credentials that you must protect. Be sure that you do not include these credentials in your
code or check the credentials into your source control. For more information, see https://aka.ms/azadsp-cli
PS C:\Users\nickl\windows-amd64> $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID
83605b9f-4174-48a2-8c7f-9af5b50c19b4
PS C:\Users\nickl\windows-amd64> az role assignment create --assignee $CERT_MANAGER_SERVICE_PRINCIPAL_APP_ID --scope $(az
network dns zone show --name $DOMAIN_NAME --resource-group eclipse-che --query "id" --output tsv) --role "DNS Zone Con
tributor"
{
  "condition": null,
  "conditionVersion": null,
  "createdBy": null,
  "createdOn": "2024-03-22T14:08:47.042714+00:00",
  "delegatedManagedIdentityResourceId": null,
  "description": null,
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/dnsz
ones/software-machines.online/providers/Microsoft.Authorization/roleAssignments/83965cb3-4823-4053-9716-2e24702299ee",
  "name": "83965cb3-4823-4053-9716-2e24702299ee",
  "principalId": "2bbc4414-2e83-4ce4-91c7-ce0cfe742e65",
  "principalType": "ServicePrincipal",
  "resourceGroup": "eclipse-che",
  "roleDefinitionId": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/providers/Microsoft.Authorization/roleDefinit
ions/befefa01-2a29-4197-83a8-272ff33ce314",
  "scope": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/providers/Microsoft.Network/d
nszones/software-machines.online",
  "type": "Microsoft.Authorization/roleAssignments",
  "updatedBy": "0d4312c8-52ca-4b68-a62f-68f7391a323d",
  "updatedOn": "2024-03-22T14:08:47.475722+00:00"
}
PS C:\Users\nickl\windows-amd64>
```

```
{
  "condition": null,
  "conditionVersion": null,
  "createdBy": null,
  "createdOn": "2024-03-22T14:08:47.042714+00:00",
  "delegatedManagedIdentityResourceId": null,
  "description": null,
  "id": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-che/
providers/Microsoft.Network/dnszones/software-machines.online/providers/
Microsoft.Authorization/roleAssignments/83965cb3-4823-4053-9716-2e24702299ee",
  "name": "83965cb3-4823-4053-9716-2e24702299ee",
  "principalId": "2bbc4414-2e83-4ce4-91c7-ce0cfe742e65",
  "principalType": "ServicePrincipal",
  "resourceGroup": "eclipse-che",
```

```
"roleDefinitionId":  
"/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/providers/Microsoft.Authorization/  
roleDefinitions/befefa01-2a29-4197-83a8-272ff33ce314",  
"scope": "/subscriptions/a559df32-05ab-46a8-bbfe-5171eda2bbde/resourceGroups/eclipse-  
che/providers/Microsoft.Network/dnszones/software-machines.online",  
"type": "Microsoft.Authorization/roleAssignments",  
"updatedBy": "0d4312c8-52ca-4b68-a62f-68f7391a323d",  
"updatedOn": "2024-03-22T14:08:47.475722+00:00"  
}
```

23. Create the eclipse-che namespace

```
kubectl create namespace eclipse-che
```

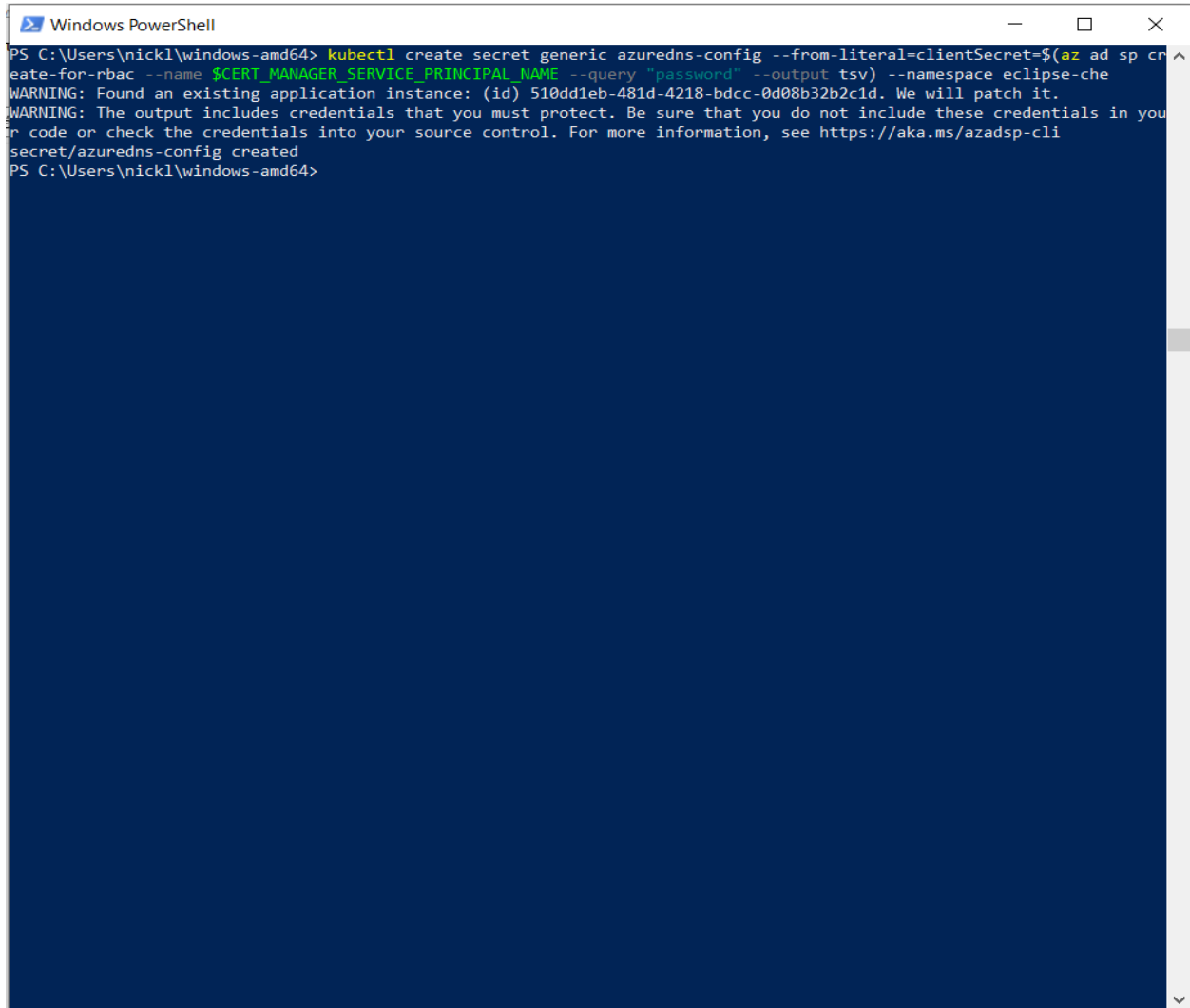
A screenshot of a Windows PowerShell terminal window. The window title is "Windows PowerShell". The command prompt shows the user at the C:\Users\nickl\windows-amd64 directory. The command entered is "kubectl create namespace eclipse-che". The output of the command is "namespace/eclipse-che created". The prompt then returns to "PS C:\Users\nickl\windows-amd64>".

```
PS C:\Users\nickl\windows-amd64> kubectl create namespace eclipse-che  
namespace/eclipse-che created  
PS C:\Users\nickl\windows-amd64>
```

namespace/eclipse-che created

24. Create a Service Account Secret

```
kubectl create secret generic azuredns-config --from-literal=clientSecret=$(az ad sp create-for-rbac --name $CERT_MANAGER_SERVICE_PRINCIPAL_NAME --query "password" --output tsv) --namespace eclipse-che
```



```
Windows PowerShell
PS C:\Users\nickl\windows-amd64> kubectl create secret generic azuredns-config --from-literal=clientSecret=$(az ad sp create-for-rbac --name $CERT_MANAGER_SERVICE_PRINCIPAL_NAME --query "password" --output tsv) --namespace eclipse-che
WARNING: Found an existing application instance: (id) 510dd1eb-481d-4218-bdcc-0d08b32b2c1d. We will patch it.
WARNING: The output includes credentials that you must protect. Be sure that you do not include these credentials in your code or check the credentials into your source control. For more information, see https://aka.ms/azadsp-cli
secret/azuredns-config created
PS C:\Users\nickl\windows-amd64>
```

WARNING: Found an existing application instance: (id) 510dd1eb-481d-4218-bdcc-0d08b32b2c1d. We will patch it.

WARNING: The output includes credentials that you must protect. Be sure that you do not include these credentials in your code or check the credentials into your source control. For more information, see <https://aka.ms/azadsp-cli>

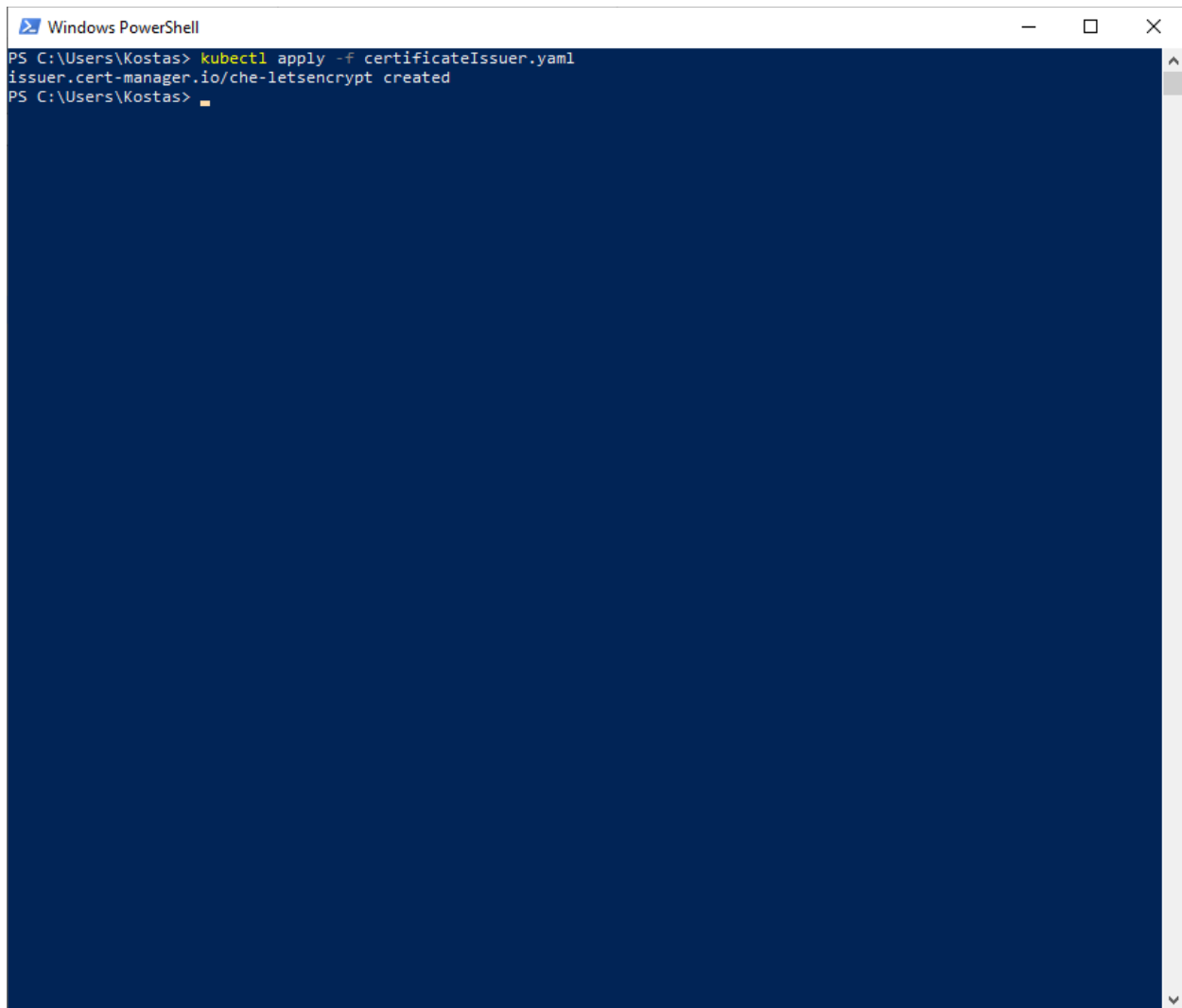
secret/azuredns-config created

25. Create the Issuer

create file `certificateIssuer.yaml` with the following content:

```
apiVersion: cert-manager.io/v1
kind: Issuer
metadata:
  name: che-letsencrypt
  namespace: eclipse-che
spec:
  acme:
    solvers:
      - dns01:
          azureDNS:
            clientID: 83605b9f-4174-48a2-8c7f-9af5b50c19b4
            clientSecretSecretRef:
              name: azuredns-config
              key: clientSecret
            subscriptionID: $(az account show --query "id" --output tsv)
            tenantID: $(az account show --query "tenantId" --output tsv)
            resourceGroupName: eclipse-che
            hostedZoneName: software-machines.online
          email: tzerras@ultra4.eu
          privateKeySecretRef:
            name: letsencrypt
          server: https://acme-v02.api.letsencrypt.org/directory
```

```
kubectl apply -f certificateIssuer.yaml
```

A screenshot of a Windows PowerShell terminal window. The window title is "Windows PowerShell". The prompt is "PS C:\Users\Kostas>". The user has entered the command "kubectl apply -f certificateIssuer.yaml". The output is "issuer.cert-manager.io/che-letsencrypt created". The prompt is now "PS C:\Users\Kostas>".

```
Windows PowerShell
PS C:\Users\Kostas> kubectl apply -f certificateIssuer.yaml
issuer.cert-manager.io/che-letsencrypt created
PS C:\Users\Kostas>
```

issuer.cert-manager.io/che-letsencrypt created

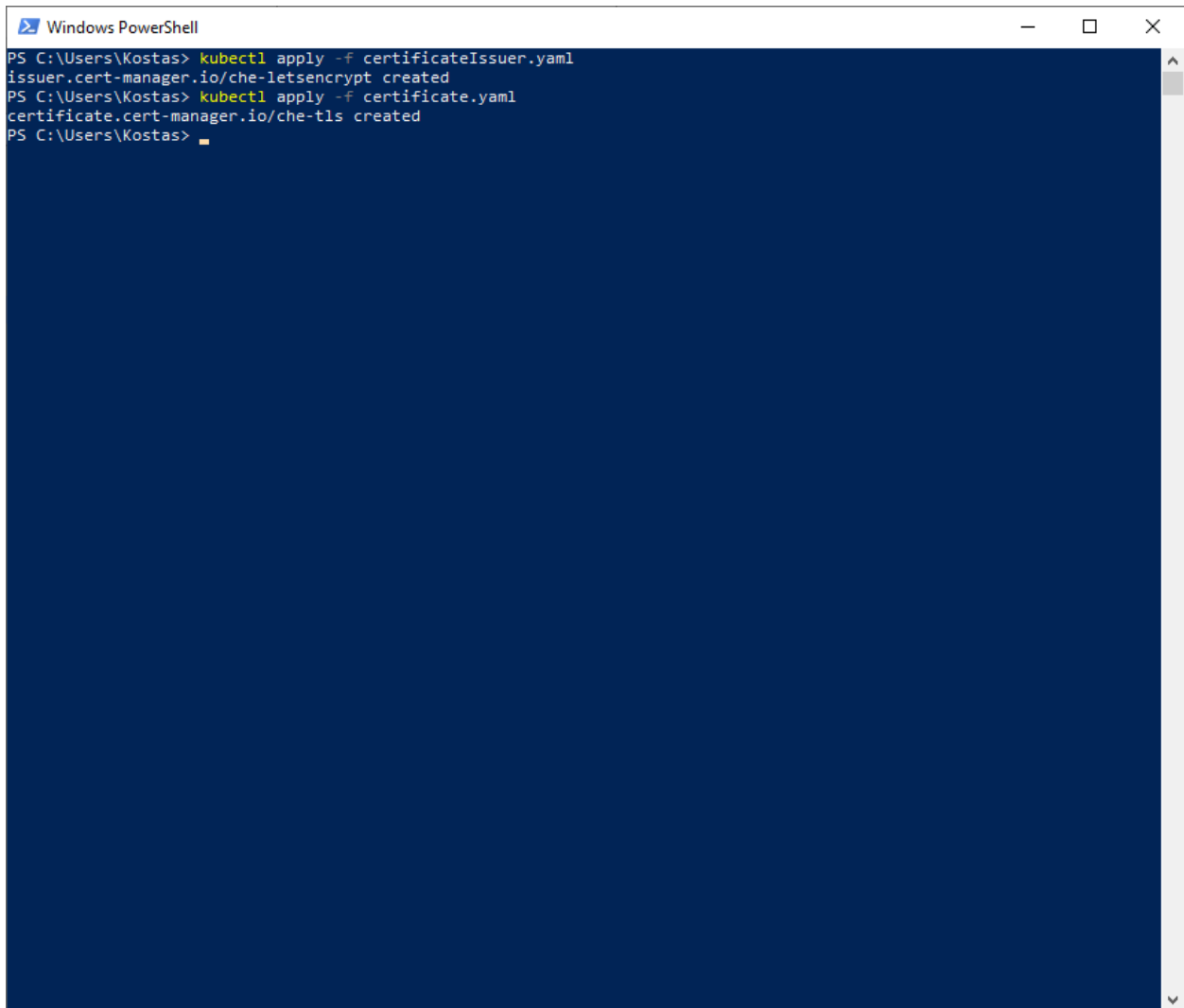
26. Create the Certificate

create file certificate.yaml with the following content:

```
apiVersion: cert-manager.io/v1
kind: Certificate
metadata:
  name: che-tls
  namespace: eclipse-che
spec:
  secretName: che-tls
  issuerRef:
    name: che-letsencrypt
    kind: Issuer
  commonName: 'software-machines.online'
```

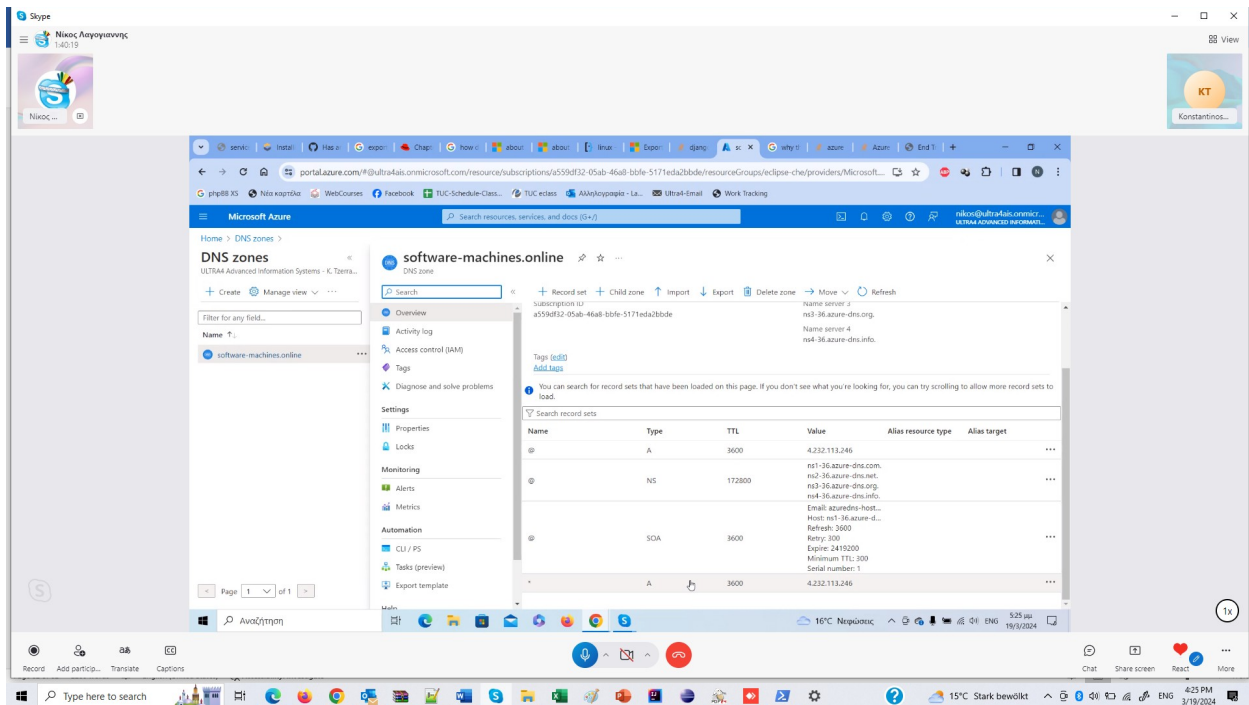
```
dnsNames:
- 'software-machines.online'
- '*.software-machines.online'
usages:
- server auth
- digital signature
- key encipherment
- key agreement
- data encipherment
```

```
kubectl apply -f certificate.yaml
```



```
Windows PowerShell
PS C:\Users\Kostas> kubectl apply -f certificateIssuer.yaml
issuer.cert-manager.io/che-letsencrypt created
PS C:\Users\Kostas> kubectl apply -f certificate.yaml
certificate.cert-manager.io/che-tls created
PS C:\Users\Kostas> █
```

```
certificate.cert-manager.io/che-tls created
```



27. Create the application Eclipse Che

```
$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME="Eclipse Che"
```

create file `requiredResourceAccesses.json` with the following content:

```
' [{"resourceAccess": [{"id": "34a47c2f-cd0d-47b4-a93c-2c41130c671c", "type": "Scope"}], "resourceAppId": "6dae42f8-4368-4678-94ff-3960e28e3630"}, {"resourceAccess": [{"id": "e1fe6dd8-ba31-4d61-89e7-88639da4683d", "type": "Scope"}], "resourceAppId": "00000003-0000-0000-c000-000000000000"} ]'
```

create file `optionalClaims.json` with the following content:

```
' {"accessToken": [{"additionalProperties": [], "essential": false, "name": "groups", "source": null} ] }'
```

run the command:

```
az ad app create --display-name $ECLIPSE_CHE_APPLICATION_DISPLAY_NAME
--enable-access-token-issuance --required-resource-accesses
"@requiredResourceAccesses.json" --optional-claims
"@optionalClaims.json" --sign-in-audience AzureADMyOrg --web-
redirect-uris https://$DOMAIN_NAME/oauth/callback
```



```

az ad app create \
  --display-name $ECLIPSE_CHE_APPLICATION_DISPLAY_NAME \
  --enable-access-token-issuance \
  --required-resource-accesses '[{"resourceAccess":{"id":"34a47c2f-cd0d-47b4-a93c-2c41130c671c","type":"Scope"},"resourceAppId":"6dae42f8-4368-4678-94ff-3960e28e3630"}, {"resourceAccess":{"id":"e1fe6dd8-ba31-4d61-89e7-88639da4683d","type":"Scope"},"resourceAppId":"00000003-0000-0000-c000-000000000000"}]' \
  --optional-claims '{"accessToken":{"additionalProperties": [],"essential":false,"name":"groups","source":null}}' \
  --sign-in-audience AzureADMyOrg \
  --web-redirect-uris https://\$DOMAIN\_NAME/oauth/callback

```

```

Windows PowerShell
PS C:\Users\nick\Windows-amd64> az ad app create --display-name $ECLIPSE_CHE_APPLICATION_DISPLAY_NAME --enable-access-token-issuance --required-resource-accesses [{"resourceAccess":{"id":"34a47c2f-cd0d-47b4-a93c-2c41130c671c","type":"Scope"},"resourceAppId":"6dae42f8-4368-4678-94ff-3960e28e3630"}, {"resourceAccess":{"id":"e1fe6dd8-ba31-4d61-89e7-88639da4683d","type":"Scope"},"resourceAppId":"00000003-0000-0000-c000-000000000000"}] --optional-claims '{"accessToken":{"additionalProperties": [],"essential":false,"name":"groups","source":null}}' --sign-in-audience AzureADMyOrg --web-redirect-uris https://$DOMAIN_NAME/oauth/callback
{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#applications/$entity",
  "addIns": [],
  "api": {
    "acceptMappedClaims": null,
    "knownClientApplications": [],
    "oauth2PermissionScopes": [],
    "preAuthorizedApplications": [],
    "requestedAccessTokenVersion": null
  },
  "appId": "ad86fadd-c685-4fd1-992d-038c69c84115",
  "appRoles": [],
  "applicationTemplateId": null,
  "certification": null,
  "createdDateTime": "2024-03-22T14:36:03.2572717Z",
  "defaultRedirectUri": null,
  "deletedDateTime": null,
  "description": null,
  "disabledByMicrosoftStatus": null,
  "displayName": "Eclipse Che",
  "groupMembershipClaims": null,
  "id": "482ae4ed-b5a9-46da-b400-a57ee0592f2f",
  "identifierUris": [],
  "info": {
    "logoUrl": null,
    "marketingUrl": null,
    "privacyStatementUrl": null,
    "supportUrl": null,
    "termsOfServiceUrl": null
  },
  "isDeviceOnlyAuthSupported": null,
  "isFallbackPublicClient": null,
  "keyCredentials": [],
  "notes": null,
  "optionalClaims": {
    "accessToken": [
      {
        "additionalProperties": [],
        "essential": false,
        "name": "groups",
        "source": null
      }
    ]
  },
  "idToken": [],
  "saml2Token": []
},
  "parentalControlSettings": {
    "countriesBlockedForMinors": []
  }
}

```

```

{
  "@odata.context": "https://graph.microsoft.com/v1.0/$metadata#applications/$entity",
  "addIns": [],
  "api": {
    "acceptMappedClaims": null,
    "knownClientApplications": [],
    "oauth2PermissionScopes": [],
    "preAuthorizedApplications": [],
    "requestedAccessTokenVersion": null
  }
}

```

```

},
"appId": "ad0c6add-c605-4fd1-992d-038c69c84115",
"appRoles": [],
"applicationTemplateId": null,
"certification": null,
"createdDateTime": "2024-03-22T14:36:03.2572717Z",
"defaultRedirectUri": null,
"deletedDateTime": null,
"description": null,
"disabledByMicrosoftStatus": null,
"displayName": "Eclipse Che",
"groupMembershipClaims": null,
"id": "482aefe4-b5a5-46da-b400-a57ee0592f2f",
"identifierUris": [],
"info": {
  "logoUrl": null,
  "marketingUrl": null,
  "privacyStatementUrl": null,
  "supportUrl": null,
  "termsOfServiceUrl": null
},
"isDeviceOnlyAuthSupported": null,
"isFallbackPublicClient": null,
"keyCredentials": [],
"notes": null,
"optionalClaims": {
  "accessToken": [
    {
      "additionalProperties": [],
      "essential": false,
      "name": "groups",
      "source": null
    }
  ]
},
"idToken": [],
"saml2Token": []
},
"parentalControlSettings": {
  "countriesBlockedForMinors": [],
  "legalAgeGroupRule": "Allow"
},
"passwordCredentials": [],
"publicClient": {
  "redirectUris": []
},
},

```

```
"publisherDomain": "ultra4ais.onmicrosoft.com",
"requestSignatureVerification": null,
"requiredResourceAccess": [
  {
    "resourceAccess": [
      {
        "id": "34a47c2f-cd0d-47b4-a93c-2c41130c671c",
        "type": "Scope"
      }
    ],
    "resourceAppId": "6dae42f8-4368-4678-94ff-3960e28e3630"
  },
  {
    "resourceAccess": [
      {
        "id": "e1fe6dd8-ba31-4d61-89e7-88639da4683d",
        "type": "Scope"
      }
    ],
    "resourceAppId": "00000003-0000-0000-c000-000000000000"
  }
],
"samlMetadataUrl": null,
"serviceManagementReference": null,
"servicePrincipalLockConfiguration": null,
"signInAudience": "AzureADMyOrg",
"spa": {
  "redirectUris": []
},
"tags": [],
"tokenEncryptionKeyId": null,
"uniqueName": null,
"verifiedPublisher": {
  "addedDateTime": null,
  "displayName": null,
  "verifiedPublisherId": null
},
"web": {
  "homePageUrl": null,
  "implicitGrantSettings": {
    "enableAccessTokenIssuance": true,
    "enableIdTokenIssuance": false
  }
},
"logoutUrl": null,
"redirectUriSettings": [
```

```
{
  "index": null,
  "uri": "https://software-machines.online/oauth/callback"
}
],
"redirectUris": [
  "https://software-machines.online/oauth/callback"
]
}
}
```

Note: *In previous installation there was an application instance ending at (...83d). Now is gone also the second "we will patch it" issue.*

28. Update the application group membership claims

```
az ad app list --query "[?
displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].id" --output tsv
```

```
Windows PowerShell
}
}
PS C:\Users\nick1\windows-amd64> az ad app list --query "[?displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].id" -
-output tsv
482ae4e4-b5a5-46da-b400-a57ee0592f2f
PS C:\Users\nick1\windows-amd64>
```

482ae4e4-b5a5-46da-b400-a57ee0592f2f

```
az ad app update --id $(az ad app list --query "[?
displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].id" --output
tsv) --set groupMembershipClaims=SecurityGroup
```

```
Windows PowerShell
}
}
PS C:\Users\nick1\windows-amd64> az ad app list --query "[?displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].id" -
-output tsv
482ae4e4-b5a5-46da-b400-a57ee0592f2f
PS C:\Users\nick1\windows-amd64> az ad app update --id $(az ad app list --query "[?displayName=='$ECLIPSE_CHE_APPLICAT
ION_DISPLAY_NAME'].id" --output tsv) --set groupMembershipClaims=SecurityGroup
PS C:\Users\nick1\windows-amd64>
```

29. Install Che on Microsoft Azure Kubernetes Service

```
az account show --query "tenantId" --output tsv
```

```
Windows PowerShell
PS C:\Users\Kostas> az account show --query "tenantId" --output tsv
1e6eb10c-ccb1d-416a-9410-c3665d7ac07b
PS C:\Users\Kostas>
```

1e6eb10c-ccb1d-416a-9410-c3665d7ac07b

```
$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME="Eclipse Che"
```

```
az ad app list --query "[?
displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].appId" --output
tsv
```

```
PS C:\Users\nickl\windows-amd64> $ECLIPSE_CHE_APPLICATION_DISPLAY_NAME="Eclipse Che"
PS C:\Users\nickl\windows-amd64> az ad app list --query "[?displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].appId"
--output tsv
ad0c6add-c605-4fd1-992d-038c69c84115
PS C:\Users\nickl\windows-amd64>
```

ad0c6add-c605-4fd1-992d-038c69c84115

```
az ad app credential reset --id $(az ad app list --query "[?
displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].id" --output
tsv) --query "password" --output tsv
```



```
Windows PowerShell
PS C:\Users\nickl\windows-amd64> az ad app credential reset --id $(az ad app list --query "[?displayName=='$ECLIPSE_CH
E_APPLICATION_DISPLAY_NAME'].id" --output tsv) --query "password" --output tsv
The output includes credentials that you must protect. Be sure that you do not include these credentials in your code
or check the credentials into your source control. For more information, see https://aka.ms/azadsp-cli
cmC8Q~HeHpPu2OUvPelJxUcswzWMj6VNVogNod1T
PS C:\Users\nickl\windows-amd64>
```

cmC8Q~HeHpPu2OUvPelJxUcswzWMj6VNVogNod1T

create file che-cluster-patch.yaml with the following content:

```
spec:
  networking:
    auth:
      identityProviderURL: "https://sts.windows.net/1e6eb10c-ccbd-
416a-9410-c3665d7ac07b/v2.0/"
      identityToken: access token
      oAuthClientName: ad0c6add-c605-4fd1-992d-038c69c84115
      oAuthSecret: cmC8Q~HeHpPu2OUvPelJxUcswzWMj6VNVogNod1T
      oAuthScope: openid email profile 6dae42f8-4368-4678-94ff-
3960e28e3630/user.read
    gateway:
      deployment:
        containers:
          - env:
```

```

      - name: OAUTH2_PROXY_INSECURE_OIDC_ALLOW_UNVERIFIED_EMAIL
        value: "true"
      name: oauth-proxy
components:
  cheServer:
    extraProperties:
      CHE_OIDC_AUTH_SERVER_URL: "https://sts.windows.net/1e6eb10c-
ccbd-416a-9410-c3665d7ac07b/v2.0/"
      CHE_OIDC_EMAIL_CLAIM: unique_name

spec:
  networking:
    auth:
      identityProviderURL: "https://sts.windows.net/$(az account show --query "tenantId" --output
tsv)/v2.0/"
      identityToken: access_token
      oAuthClientName: $(az ad app list --query "[?
displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].appId" --output tsv)
      oAuthSecret: $(az ad app credential reset --id $(az ad app list --query "[?
displayName=='$ECLIPSE_CHE_APPLICATION_DISPLAY_NAME'].id" --output tsv) --
query "password" --output tsv)
      oAuthScope: openid email profile 6dae42f8-4368-4678-94ff-3960e28e3630/user.read
gateway:
  deployment:
    containers:
      - env:
        - name: OAUTH2_PROXY_INSECURE_OIDC_ALLOW_UNVERIFIED_EMAIL
          value: "true"
        name: oauth-proxy
components:
  cheServer:
    extraProperties:
      CHE_OIDC_AUTH_SERVER_URL: "https://sts.windows.net/$(az account show --
query "tenantId" --output tsv)/v2.0/"
      CHE_OIDC_EMAIL_CLAIM: unique_name

```

Run the following command:

```

chectl server:deploy --platform=k8s --che-operator-cr-patch-yaml=che-
cluster-patch.yaml --skip-oidc-provider-check --skip-cert-manager --
domain=$DOMAIN_NAME

```

```
Windows PowerShell
PS C:\Users\Kostas> kubectl server deploy --platforms --che-operator=cr-patch-yaml-che-cluster-patch.yaml --skip-oidc-provider-check --skip-cert-manager --domain=eclipse.192.168.1.10
Current Kubernetes context: 'eclipse-che-admin'
Verify Kubernetes API
Kubernetes preflight checklist
Verify if kubectl is installed...[OK]
Verify domain is set...[OK]
Create Namespace eclipse-che...[Exists]
↓ Install Cert Manager v1.8.2 [skipped]
Start following Eclipse Che installation logs...[OK]
Deploy Eclipse Che operator
Install Dev Workspace operator
  Create Namespace devworkspace-controller...[Exists]
  Create Dev Workspace operator resources...[Created]
  Wait for Dev Workspace operator ready...[OK]
  Create ServiceAccount che-operator...[Created]
  Create RBAC
  Create Role che-operator-leader-election...[Created]
  Create RoleBinding che-operator-leader-election...[Created]
  Create RoleBinding che-operator...[Created]
  Create RoleBinding eclipse-che-che-operator...[Created]
  Create RoleBinding eclipse-che-che-operator...[Created]
  Create Certificate che-operator-serving-cert...[Created]
  Create Issuer che-operator-selfsigned-issuer...[Created]
  Create Service che-operator-service...[Created]
  Create CRD checlusters.org.eclipse-che...[Created]
  Waiting...[OK]
  Create Deployment che-operator...[Created]
  Eclipse Che Operator pod bootstrap
  Scheduling...[OK]
  Downloading images...[OK]
  Starting...[OK]
  Create ValidatingWebhookConfiguration org.eclipse-che...[Created]
  Create MutatingWebhookConfiguration org.eclipse-che...[Created]
  Create Cluster Custom Resource...[Created]
Wait for Eclipse Che ready
Devfile Registry pod bootstrap
  Scheduling...[OK]
  Downloading images...[OK]
  Starting...[OK]
Plugin Registry pod bootstrap
  Scheduling...[OK]
  Downloading images...[OK]
  Starting...[OK]
Dashboard pod bootstrap
  Scheduling...[OK]
  Downloading images...[OK]
  Starting...[OK]
Gateway pod bootstrap
  Scheduling...[OK]
  Downloading images...[OK]
  Starting...[OK]
Eclipse Che Server pod bootstrap
  Scheduling...[OK]
  Downloading images...[OK]
  Starting...[OK]
Wait Eclipse Che active...[OK]
Retrieving Eclipse Che self-signed CA certificate...[OK: C:\Users\Kostas\AppData\Local\Temp\cheCa.crt]
Prepare post installation output...[OK]
Show important messages
Eclipse Che 7.81.0 has been successfully deployed.
Documentation : https://www.eclipse.org/che/docs/
Users Dashboard : https://software-machines.online/dashboard/
Plugin Registry : https://software-machines.online/plugin-registry/v3/
Devfile Registry : https://software-machines.online/devfile-registry/
Command server deploy has completed successfully in 48.37s.
PS C:\Users\Kostas>
```

- > Current Kubernetes context: 'eclipse-che-admin'
 - ✓ Verify Kubernetes API
 - ✓ Kubernetes preflight checklist
 - ✓ Verify if kubectl is installed...[OK]
 - ✓ Verify domain is set...[OK]
 - ✓ Create Namespace eclipse-che...[Exists]
 - ↓ Install Cert Manager v1.8.2 [skipped]
 - ✓ Start following Eclipse Che installation logs...[OK]
 - ✓ Deploy Eclipse Che operator
 - ✓ Install Dev Workspace operator
 - ✓ Create Namespace devworkspace-controller...[Created]
 - ✓ Create Dev Workspace operator resources...[Created]
 - ✓ Wait for Dev Workspace operator ready...[OK]
 - ✓ Create ServiceAccount che-operator...[Created]
 - ✓ Create RBAC
 - ✓ Create Role che-operator-leader-election...[Created]
 - ✓ Create Role che-operator...[Created]
 - ✓ Create RoleBinding che-operator-leader-election...[Created]
 - ✓ Create RoleBinding che-operator...[Created]
 - ✓ Create RoleBinding eclipse-che-che-operator...[Created]
 - ✓ Create RoleBinding eclipse-che-che-operator...[Created]
 - ✓ Create Certificate che-operator-serving-cert...[Created]
 - ✓ Create Issuer che-operator-selfsigned-issuer...[Created]
 - ✓ Create Service che-operator-service...[Created]

- √ Create CRD checlusters.org.eclipse.che...[Created]
- √ Waiting...[OK]
- √ Create Deployment che-operator...[Created]
- √ Eclipse Che Operator pod bootstrap
 - √ Scheduling...[OK]
 - √ Downloading images...[OK]
 - √ Starting...[OK]
- √ Create ValidatingWebhookConfiguration org.eclipse.che...[Created]
- √ Create MutatingWebhookConfiguration org.eclipse.che...[Created]
- √ Create CheCluster Custom Resource...[Created]
- √ Wait for Eclipse Che ready
 - √ Plugin Registry pod bootstrap
 - √ Scheduling...[OK]
 - √ Downloading images...[OK]
 - √ Starting...[OK]
 - √ Dashboard pod bootstrap
 - √ Scheduling...[OK]
 - √ Downloading images...[OK]
 - √ Starting...[OK]
 - √ Gateway pod bootstrap
 - √ Scheduling...[OK]
 - √ Downloading images...[OK]
 - √ Starting...[OK]
 - √ Eclipse Che Server pod bootstrap
 - √ Scheduling...[OK]
 - √ Downloading images...[OK]
 - √ Starting...[OK]
 - √ Wait Eclipse Che active...[OK]
- √ Retrieving Eclipse Che self-signed CA certificate...[OK: C:\Users\nick\AppData\Local\Temp\cheCA.crt]
- √ Prepare post installation output...[OK]
- √ Show important messages
 - √ Eclipse Che next has been successfully deployed.
 - √ Documentation : <https://www.eclipse.org/che/docs/>
 - √ -----
 - √ Users Dashboard : <https://software-machines.online/dashboard/>
 - √ -----
 - √ Plug-in Registry : <https://software-machines.online/plugin-registry/v3/>
 - √ Devfile Registry : <https://registry.devfile.io/>
 - √ -----

Command server:deploy has completed successfully in 05:24.

chectl dashboard:open

We receive 500 error and non-secure application