Azure Active Directory (AAD):

* AAD is a Microsoft enterprise cloud-based identity and accesses management (IAM) solution.
* Azure AD is the backbone of 365 system.
* For an organization azure AD helps employee’s signup to multiple services and accesses them anywhere over the cloud with a single set of login credentials.

Graphical user interface, text, application

Description automatically generated

* In Active directory we have created the app registration and will get the Application ID (ClientID) object ID and Directory ID.
* So, whatever the IDs we are getting that is sensible information, that should be stored in key vault (secrets) and giving access to other person or an application in access policy.

Graphical user interface, text, application

Description automatically generated

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* In real time we are giving the group level access and individual, now we are creating the group in azure active directory.
* Azure group is the name of the group in azure AD.

Graphical user interface, text, application

Description automatically generated

* Owner (Surya) only can read, contribute and modify the group nothing but managing now we are adding members to the group.

Graphical user interface, text, application, email

Description automatically generated

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* Now, we are giving access in resources like: APIM, AKS, virtual network and whatever the resources we are created.
* We are giving READ and CONTRIBUTE access in API resource.
* READ - View all resources but not allow to make CONTRIBUTE – Manage all the resources and can make changes.

Graphical user interface, application

Description automatically generated

Azure Devops:

* Devops is the combination development and operations are known as devops.
* Azure devops is a culture and set of processes that bring together developers, project managers and contributors to develop software.
* It allows organization to create and improve products.
* In devops we are using the CICD (continuous integration and continuous deliver) process to avoid dependency and time.
* Steps:

CD: continuous download

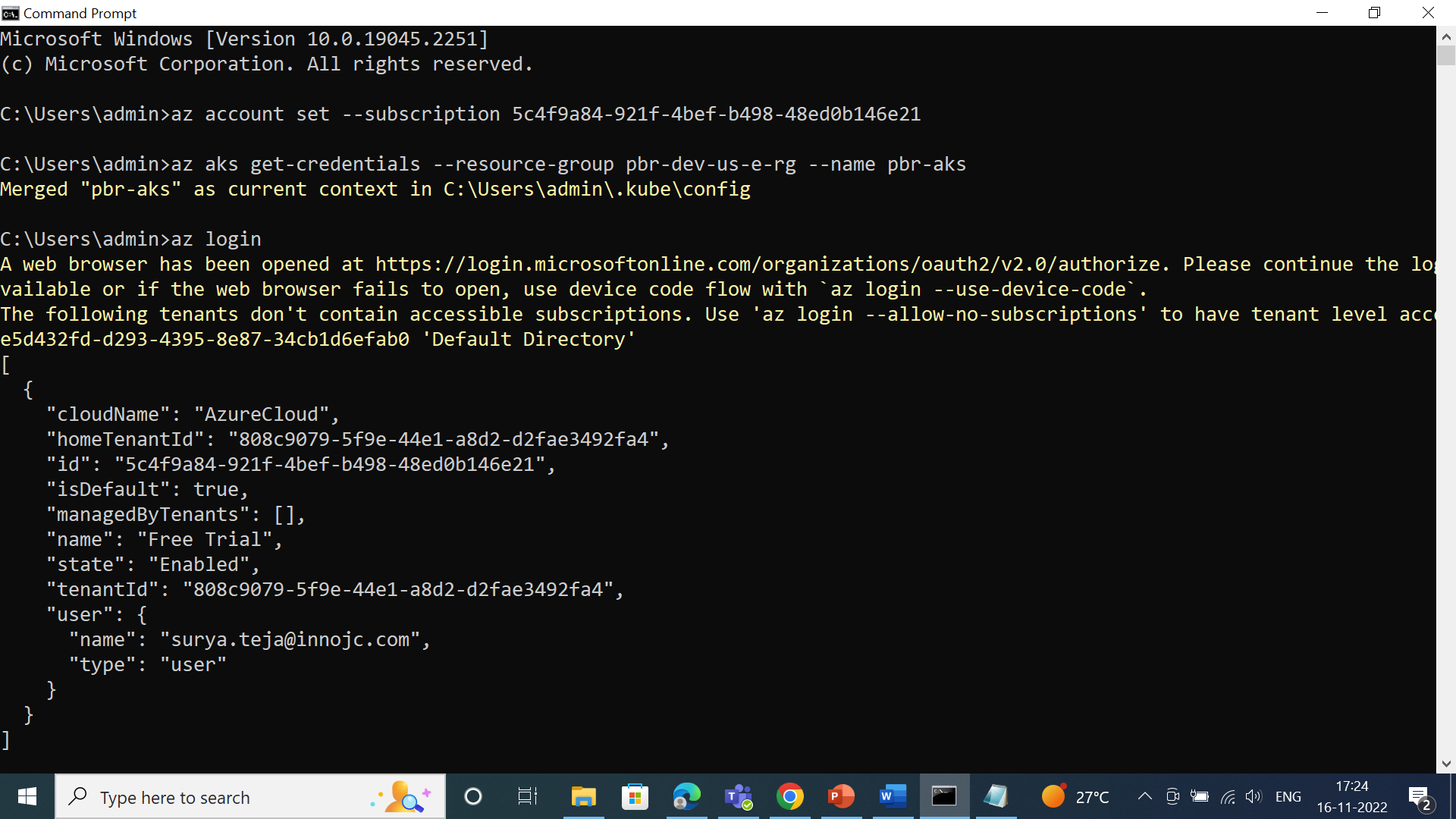
CI: continuous integration

CT: continuous testing

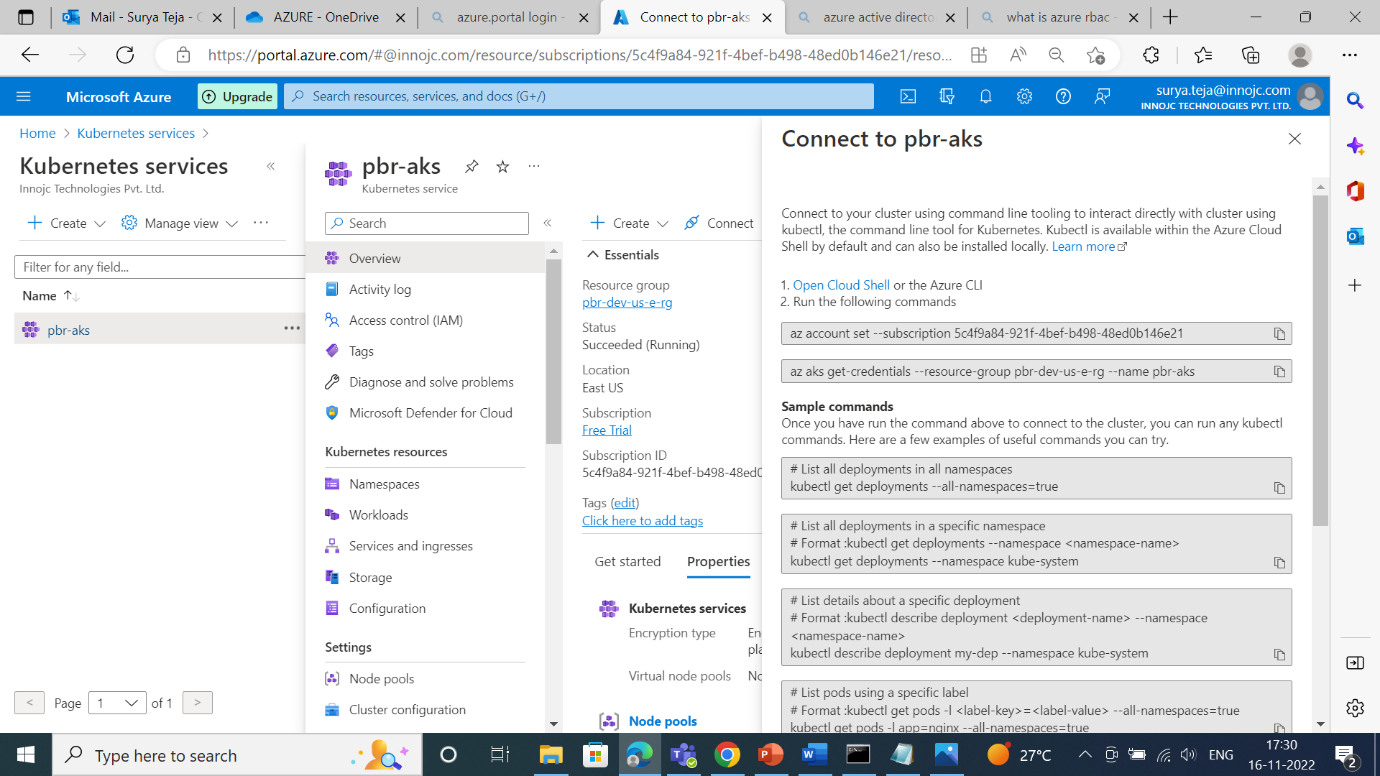
CD: continuous deployment

CD: continuous deliver

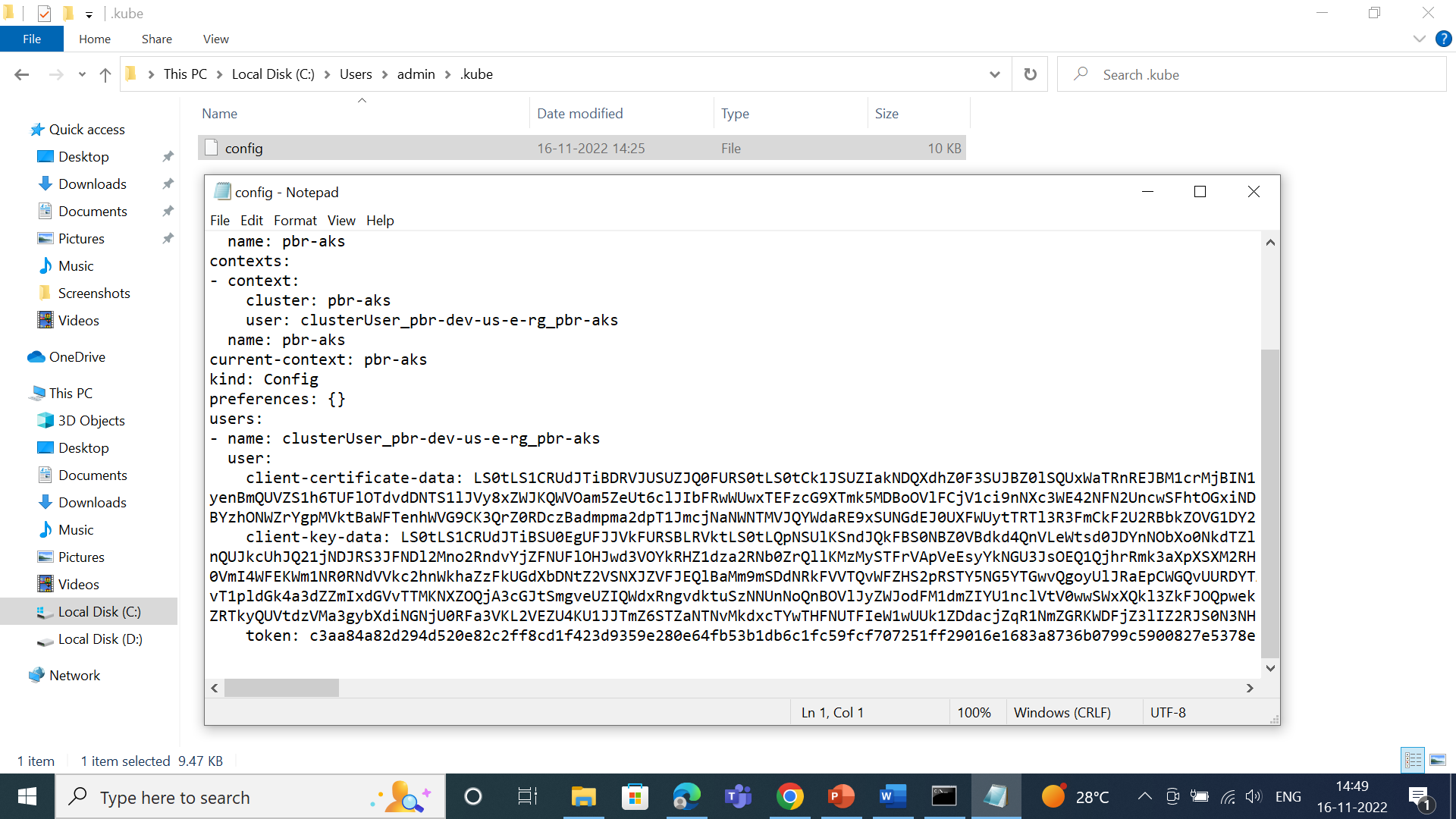
* We must install the AZ-CLI and kubeCTL.
* AZ-cli is used to manage many azure devops services from the command line.
* KubeCTL is a command line tool, and it is used to communicate and control Kubernetes clusters.
* We are deploying the Kubernetes cluster and connecting the cluster and creating the name spaces using AZ-cli and kubeCTL.
* We must connect through azure portal



* Deploying the azure Kubernetes cluster

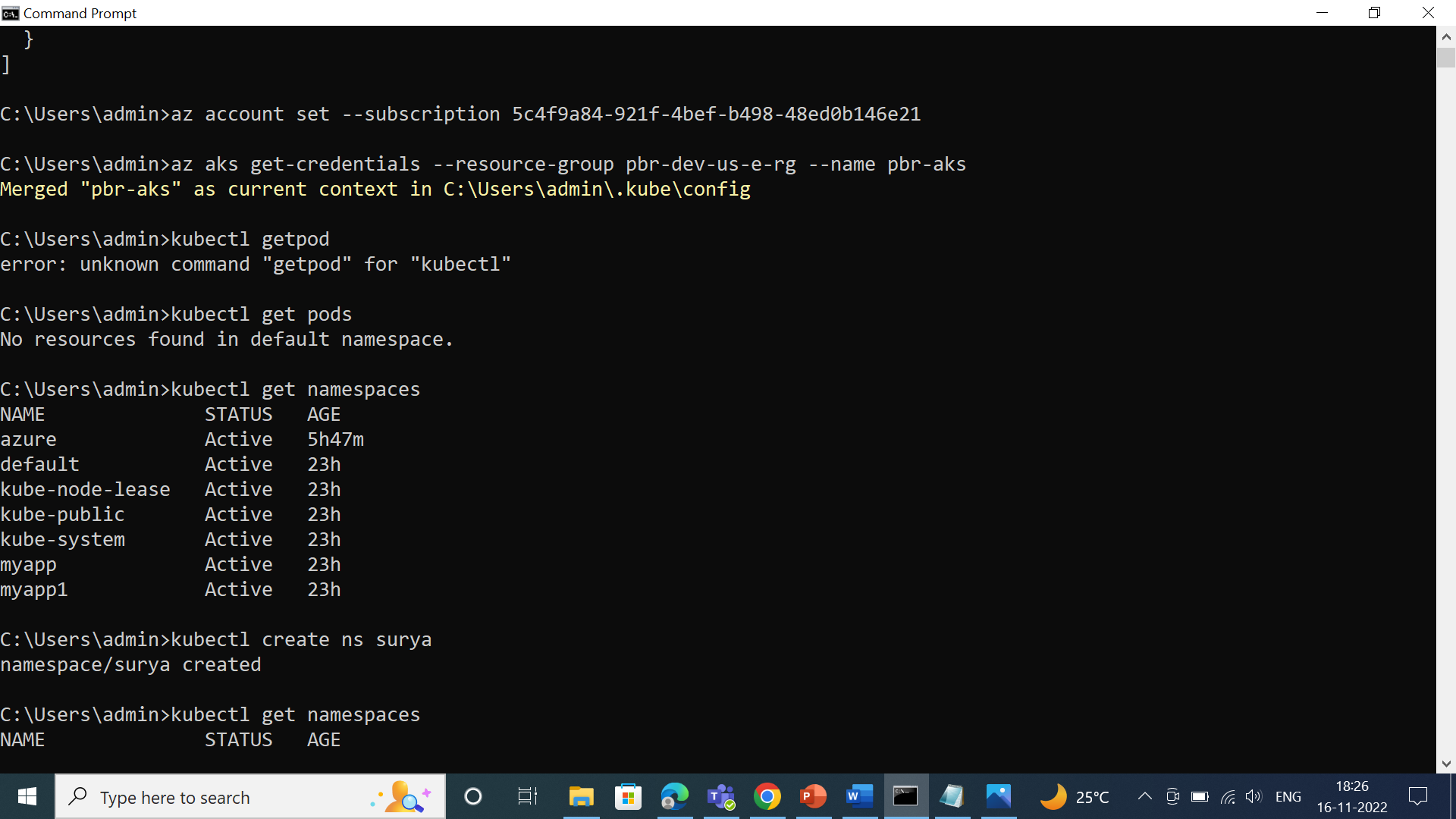


* After login into aks cluster the config file will be generated.
* Config file contains secured data and token information, and it will be generated with the help of client certificate data client key data and token.



* When we launch AKS cluster by default, we get namespaces.
* Namespaces is nothing but organize cluster into virtual sub-clusters.
* Deploying the pods, pod is a small scale of deployment nothing but small program with the help of this we can deploy all our services.
* Commands >kubectl get namespaces

>kubectl get pods



* We should not deploy services in default namespaces because due to security.

To create namespace command

>kubectl create ns surya

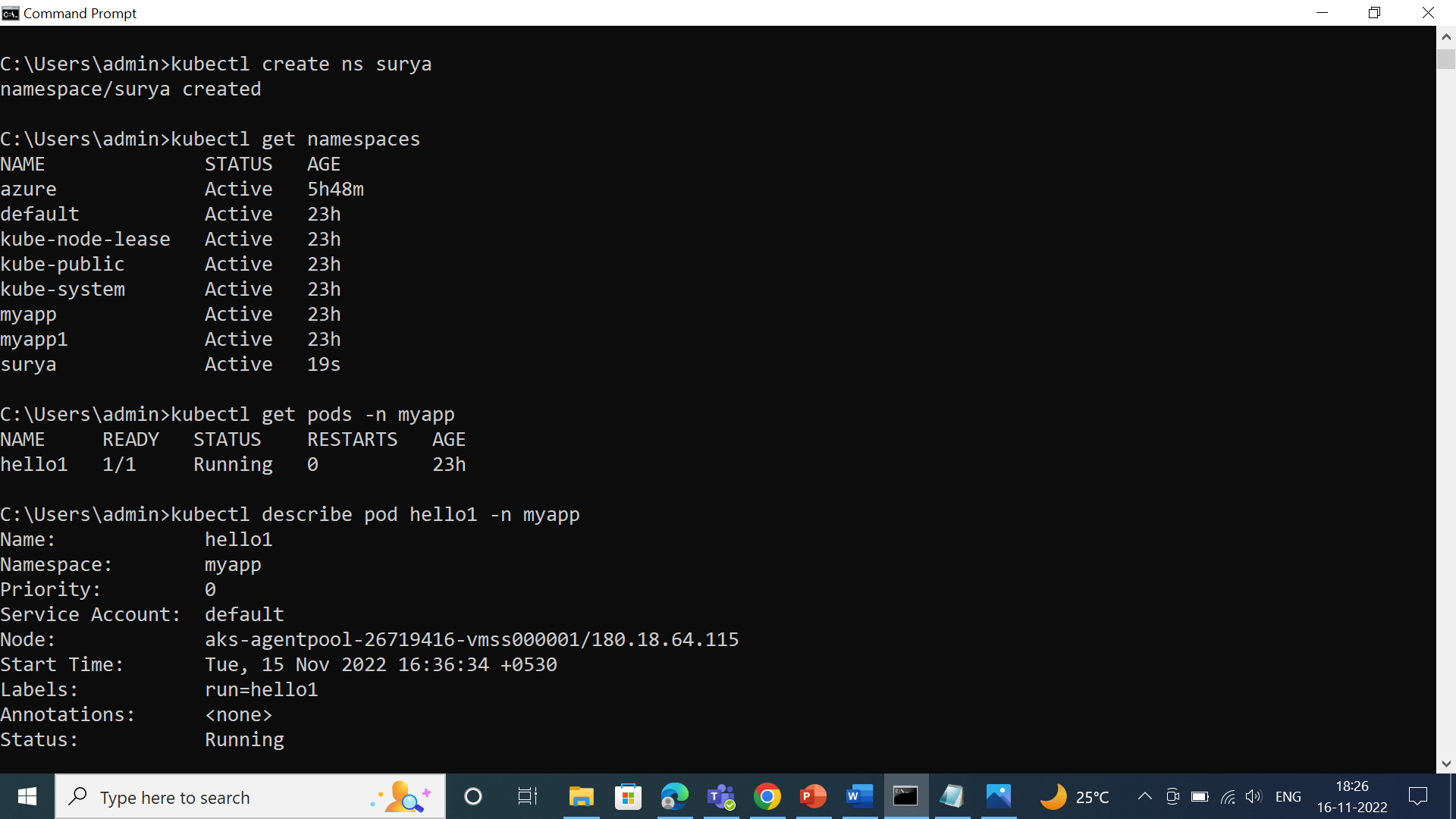
>kubectl get namespaces

To know the pod

>kubectl get pod -n myapp

To describe the whole pod information

>kubectl describe pod hello1 -n myapp



To know the deployment and services

>kubectl get deployment

>kubectl get services

