

For deployment yaml file via  
Kubernetes service on azure  
platform

# Goto azure platform and select Kubernetes services and click on create

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo, a search bar, and user information. The main content area displays 'Azure services' with a 'Create a resource' button and 'Kubernetes services'. A 'Resources' section is visible with 'Recent' and 'Favorite' tabs. A 'Kubernetes services' panel is open, showing 'Recent resources' and 'Free training from Microsoft'. A PowerShell terminal window is open at the bottom, displaying the following commands and output:

```
PS /home/vishwas> kubectl get deployment
NAME                READY   UP-TO-DATE   AVAILABLE   S
azure-vote-back-6fcdc5cbd5-h8f2c    1/1     1             1
azure-vote-front-5f4b8d498-hvxt2    1/1     1             1
PS /home/vishwas> kubectl get services
NAME                TYPE        CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
azure-vote-back     ClusterIP   10.0.59.16     <none>         <none>      31m
azure-vote-front     LoadBalancer 10.0.65.56     10.0.65.56     80/TCP     31m
kubernetes           ClusterIP   10.0.0.1       <none>         443/TCP    31m
```

The terminal window also shows the URL <https://portal.azure.com/#create/hub> at the bottom.

# Then click on create the Kubernetes cluster

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the 'Microsoft Azure' logo and a search bar. The main content area displays 'Azure services' and 'Resources'. A 'Kubernetes services' dropdown menu is open, showing options to 'Create a Kubernetes cluster' and 'Add a Kubernetes cluster with Azure Arc'. Below the dropdown, there is a section for 'Free training from Microsoft' with links to 'Introduction to Azure Kubernetes Service', 'Introduction to Kubernetes', and 'Application and package management using Kubernetes'. The bottom of the screen shows a PowerShell terminal window with the following output:

```
PS /home/vishwas> kubectl get deployment
NAME                                READY   UP-TO-DATE   AVAILABLE
azure-vote-back-6fcdc5cbd5-h8f2c    1/1     1             1
azure-vote-front-5f4b8d498-hvxt2    1/1     1             1
PS /home/vishwas> kubectl get services
NAME                                TYPE        CLUSTER-IP    EXTERNAL-IP
azure-vote-back                     ClusterIP    10.0.59.16
azure-vote-front                     LoadBalancer 10.0.65.56
kubernetes                           ClusterIP    10.0.0.1      <none>
```

The taskbar at the bottom shows the Windows logo, a search bar, and various application icons. The system tray on the right indicates the time as 2:38 PM on 27-Sep-22 and the temperature as 33°C.

# Then create resource group and clustername as per you like

Microsoft Azure

Home >

## Create Kubernetes cluster

containerized applications without container orchestration expertise. It also eliminates the burden of ongoing operations and maintenance by provisioning, upgrading, and scaling resources on demand, without taking your applications offline.  
[Learn more about Azure Kubernetes Service](#)

**Project details**

Select a subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription \* ⓘ

Resource group \* ⓘ   
[Create new](#)

**Cluster details**

Cluster preset configuration   
To quickly customize your Kubernetes cluster, choose one of the preset configurations above. You can modify these configurations at any time.  
[Learn more and compare presets](#)

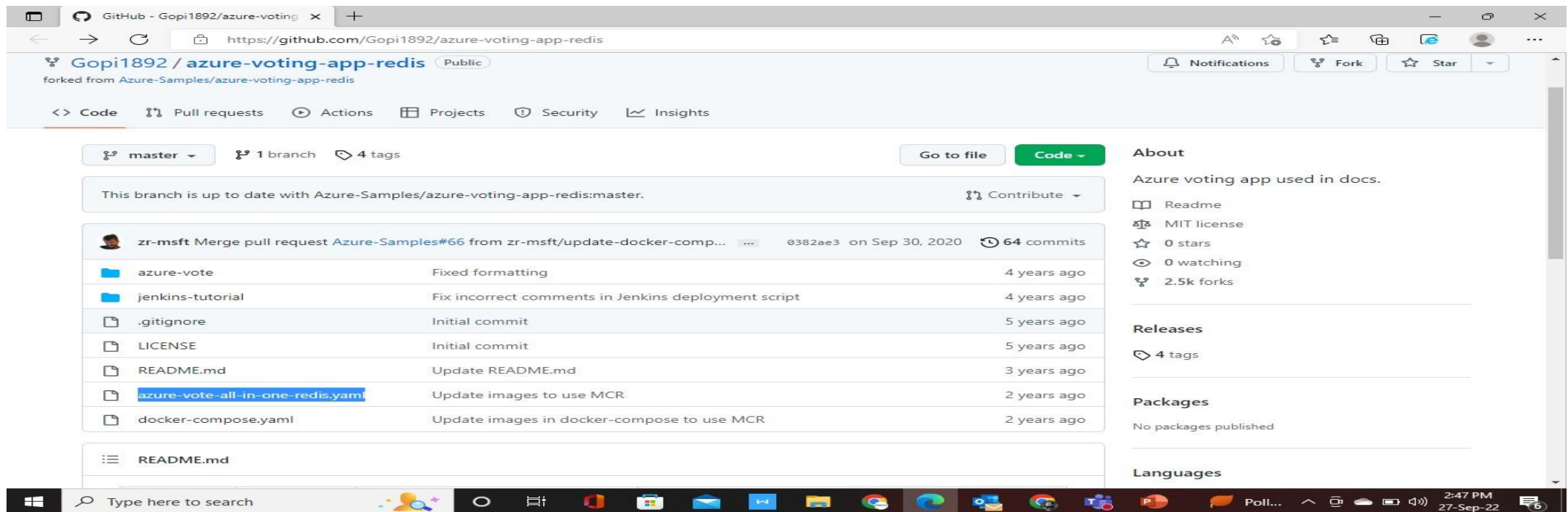
Kubernetes cluster name \* ⓘ

Region \* ⓘ

[Review + create](#) [< Previous](#) [Next : Node pools >](#)

# Once all settings are done for vm deployment

- Copy the link below which trainer shared and open the code which is in .yaml format
- <https://github.com/Gopi1892/azure-voting-app-redis.git>





# Once your vm is ready then connect with the terminal

The screenshot displays the Microsoft Azure portal interface. The main content area shows the 'Connect to k8s' guide, which provides instructions on how to connect to a Kubernetes cluster using command-line tools. The guide includes the following steps:

1. Open Cloud Shell or the Azure CLI
2. Run the following commands

The commands shown in the guide are:

```
az account set --subscription c8702e29-eee8-4d62-8b02-28fa3e938f35
az aks get-credentials --resource-group uservjmkubernetes --name k8s
```

Below the guide, a terminal window is open, showing the execution of these commands. The terminal output is as follows:

```
vishwas [ ~ ]$ az account set --subscription c8702e29-eee8-4d62-8b02-28fa3e938f35
vishwas [ ~ ]$ az aks get-credentials --resource-group uservjmkubernetes --name k8s
Merged "k8s" as current context in /home/vishwas/.kube/config
vishwas [ ~ ]$
```

The terminal window also shows the status of the Cloud Shell connection: 'Cloud Shell.Succeeded.' and 'Terminal...'. The Azure portal interface includes a sidebar with navigation options like 'Overview', 'Activity log', 'Access control (IAM)', 'Tags', 'Diagnose and solve problems', and 'Microsoft Defender for Cloud'. The top navigation bar shows the user's profile and the current resource group.

# Copy the code from link and paste in editor and save the file as per you like.

The screenshot displays a Windows desktop environment with the following components:

- Azure Portal:** The top half of the screen shows the Azure portal interface. The browser tabs include "Azure Voting App", "Connect to k8s - Microsoft Azure", "kubectl Cheat Sheet | Kubernetes", and another "Azure Voting App". The address bar shows a URL to a resource group. The left sidebar lists navigation options like "Home", "k8s", "Overview", "Activity log", "Access control (IAM)", "Tags", "Diagnose and solve problems", and "Microsoft Defender for Cloud". The main content area shows details for a "k8s" Kubernetes service, including its resource group, status, location, subscription, and subscription ID. A "Connect to k8s" panel on the right provides instructions and sample commands for connecting to the cluster using kubectl.
- PowerShell Terminal:** A PowerShell window is open at the bottom, showing the command prompt at `PS /home/vishwas>`. The terminal output includes the message `VERBOSE: Building your Azure drive ...`.
- Code Editor:** A code editor window is open in the background, displaying a file explorer on the left with folders like `.azure`, `.Azure`, `.cache`, `.kube`, `.local`, `clouddrive`, and `.bash_history`. The main editor area shows a "Save new file?" dialog box with a text input field for the file name and "Save" and "Don't Save" buttons.

# Once file is save run command below are as follows

- `az account set --subscription c8702e29-eee8-4d62-8b02-28fa3e938f35`
- `az aks get-credentials --resource-group uservjmkubernetes --name k8s`
- `Kubectl -f (your file name)`
- `Kubectl get pods`
- `Kubectl get deployment`
- `Kubectl get services`



# Once you run all command successfully in terminal copy the external ip address

The screenshot displays the Azure portal interface for a Kubernetes service named 'k8s'. The 'Essentials' section shows the cluster's status as 'Succeeded (Running)' in the 'Central India' location. The 'Connect to k8s' panel provides instructions and sample commands for connecting to the cluster using kubectl. Below the portal, a PowerShell terminal window shows the execution of kubectl commands to get deployment and service information. The terminal output includes a table of deployment details and a table of service details, with the external IP address '20.207.76.240' highlighted for the 'azure-vote-front' service.

**Connect to k8s**

Connect to your cluster using command line tooling to interact directly with cluster using kubectl, the command line tool for Kubernetes. Kubectl is available within the Azure Cloud Shell by default and can also be installed locally. [Learn more](#)

1. Open Cloud Shell or the Azure CLI
2. Run the following commands

```
az account set --subscription c8702e29-eee8-4d62-8b02-28fa3e938f35
```

```
az aks get-credentials --resource-group uservjmkubernetes --name k8s
```

**Sample commands**

Once you have run the command above to connect to the cluster, you can run any kubectl

**PowerShell**

NAME	READY	STATUS	RESTARTS	AGE
azure-vote-back-6fcdc5cbd5-h8f2c	1/1	Running	0	35m
azure-vote-front-5f4b8d498-hvxt2	1/1	Running	0	35m

```
PS /home/vishwas> kubectl get deployment
```

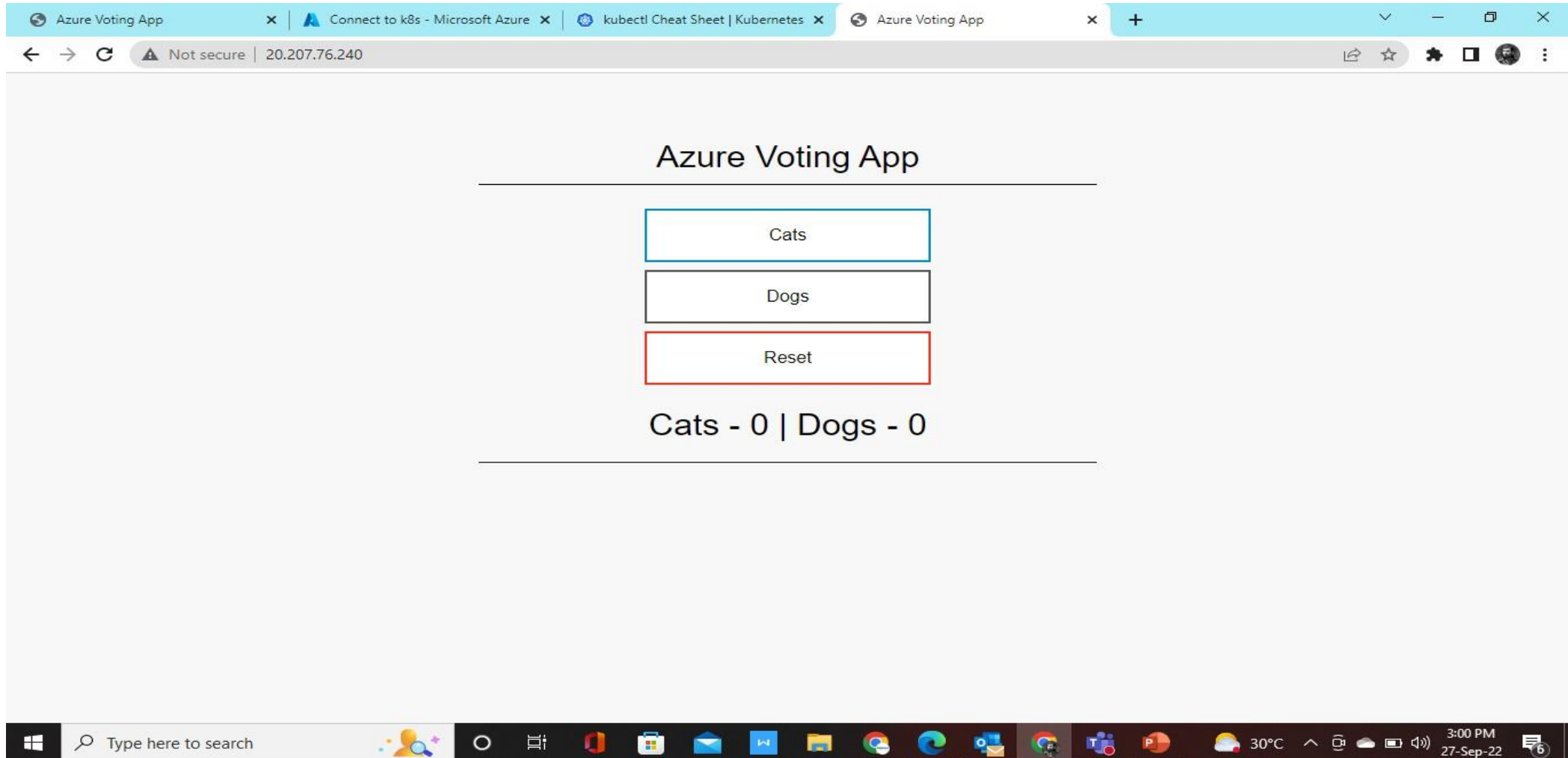
NAME	READY	UP-TO-DATE	AVAILABLE	AGE
azure-vote-back	1/1	1	1	35m
azure-vote-front	1/1	1	1	35m

```
PS /home/vishwas> kubectl get services
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
azure-vote-back	ClusterIP	10.0.59.165	<none>	6379/TCP	35m
azure-vote-front	LoadBalancer	10.0.65.56	20.207.76.240	80:30833/TCP	35m
kubernetes	ClusterIP	10.0.0.1	<none>	443/TCP	66m

```
PS /home/vishwas>
```

# Paste the external ip on your browser url side. Will get the output of code below:



# Image of name spaces

The screenshot shows the Microsoft Azure portal interface. The browser's address bar displays the URL: `portal.azure.com/#@vjm16392outlook.onmicrosoft.com/resource/subscriptions/8941d68f-493b-486e-8689-4c5390547a06/resourcegroups/vjmkubernet...`. The page title is "vjmkub | Namespaces". Below the title, there is a search bar and a list of actions: "Create", "Delete", "Refresh", "Show labels", and "Give feedback".

On the left sidebar, under "Kubernetes resources", the "Namespaces" option is selected. Below it, there are links for "Workloads", "Services and ingresses", "Storage", "Configuration", "Settings", "Node pools", "Cluster configuration", "Networking", "Open Service Mesh", and "GitOps".

The main content area shows a table of namespaces. The table has columns for "Name", "Status", and "Age". There are four namespaces listed:

Name	Status	Age
<input type="checkbox"/> kube-node-lease	Active	37 minutes
<input type="checkbox"/> kube-public	Active	37 minutes
<input type="checkbox"/> kube-system	Active	37 minutes
<input type="checkbox"/> default	Active	37 minutes

At the bottom of the screen, there is a Windows taskbar with the Start button, a search bar, and several application icons. The system tray shows the date and time as "2:04 PM 15-Oct-22" and the temperature as "29°C".

# Image of services ingresses

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and the user's email address (vjmkub@outlook.com). The left sidebar contains a navigation menu with options like Microsoft Defender for Cloud, Kubernetes resources, and Settings. The main content area displays the 'Services and ingresses' page for the 'vjmkub' Kubernetes service. The page has tabs for 'Services' and 'Ingresses', with 'Services' currently selected. Below the tabs are filters for 'Filter by service name' and 'Filter by namespace'. A table lists the services, with columns for Name, Namespace, Status, Type, Cluster IP, External IP, Ports, and Age. The services listed are kubelet, kube-dns, addon-http-application..., metrics-server, azure-vote-back, and azure-vote-front. The 'azure-vote-front' service is highlighted.

<input type="checkbox"/>	Name	Namespace	Status	Type	Cluster IP	External IP	Ports	Age ↓
<input type="checkbox"/>	kubelet	default	✓ Ok	ClusterIP	10.0.0.1		443/TCP	37 minutes
<input type="checkbox"/>	kube-dns	kube-system	✓ Ok	ClusterIP	10.0.0.10		53/UDP,53/TCP	37 minutes
<input type="checkbox"/>	addon-http-application...	kube-system	✓ Ok	LoadBalancer	10.0.59.251	20.219.232.152	80:32666/TCP,4...	37 minutes
<input type="checkbox"/>	metrics-server	kube-system	✓ Ok	ClusterIP	10.0.173.152		443/TCP	37 minutes
<input type="checkbox"/>	azure-vote-back	default	✓ Ok	ClusterIP	10.0.174.24		6379/TCP	2 minutes
<input type="checkbox"/>	azure-vote-front	default	✓ Ok	LoadBalancer	10.0.133.110	20.204.253.85	80:31109/TCP	2 minutes

End of PPT







