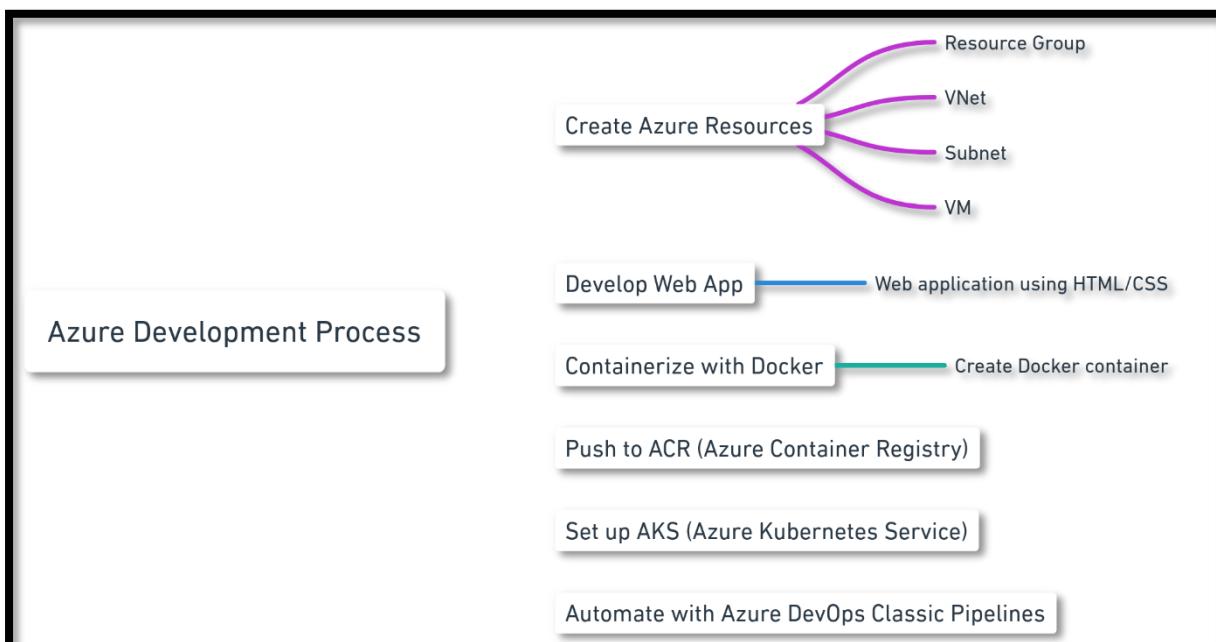


## Deploying Web Application Deployment through Azure

### Objective

To familiarize participants with **cloud infrastructure, containerization, and automation**. By deploying a web app using HTML and CSS on Azure Free Tier, participants will learn to set up resources like **VMs, AKS, and ACR**, **containerize applications with Docker**, and automate deployment with **Azure DevOps pipelines**. The goal is to provide hands-on experience in **DevOps practices, CI/CD workflows, and resource optimization** within free-tier limits.



### Requirements and Tools Needed

- **Azure Free Tier Account:** For accessing Azure services.
- **Azure CLI:** To manage Azure resources.
- **Docker:** For containerizing the web application.
- **Kubectl:** To interact with Kubernetes clusters.
- **Git:** For version control.
- **Visual Studio Code (optional):** For code editing.
- **Azure DevOps Account:** For setting up CI/CD pipelines.
- **Web Development Knowledge:** Basic understanding of HTML, CSS, Docker, Kubernetes, ACR, and Kubernetes clusters.
- **Azure Container Registry (ACR):** Azure's service for storing and managing Docker container images.

- **Kubernetes**: A system for automating the management of containerized applications.
  - **Kubernetes Cluster**: A set of nodes managed by Kubernetes to run containerized apps.

# Manual Deployment Using Bash Script

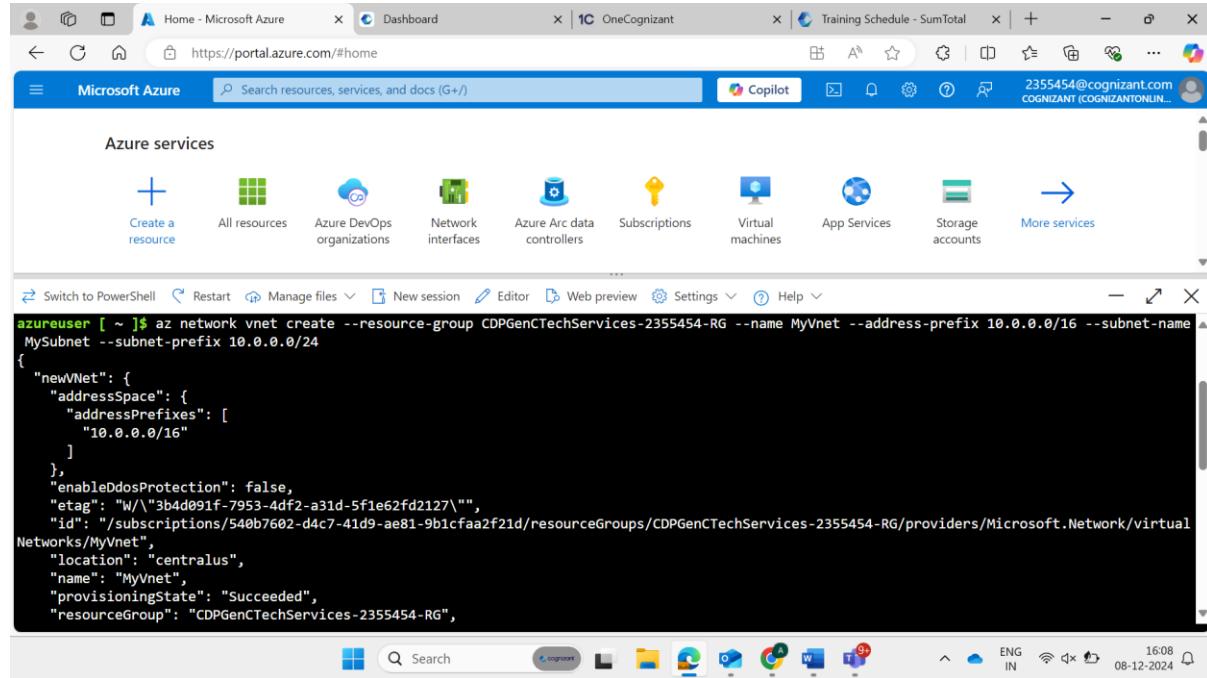
This document provides steps to manually deploy a web application using a Bash script. The steps include creating Azure resources, containerizing the application with Docker, pushing the Docker image to Azure Container Registry (ACR), and deploying it on Azure Kubernetes Service (AKS).

## Create a Resource Group

```
az group create --name CDPGenCTechServices-2355454-RG --location centralus
```

## **Create a Virtual Network and Subnet**

```
az network vnet create --resource-group CDPGenCTechServices-2355454-RG --name MyVnet --address-prefix 10.0.0.0/16 --subnet-name MySubnet --subnet-prefix 10.0.0.0/24
```



## Create a network security group

```
az network nsg create --resource-group CDPGenCTechServices-2355454-RG --name MyNSG
```

```
az network nsg create --resource-group CDPGenCTechServices-2355454-RG --name MyNsg
{
  "NewNSG": {
    "defaultSecurityRules": [
      {
        "access": "Allow",
        "description": "Allow inbound traffic from all VMs in VNET",
        "destinationAddressPrefix": "VirtualNetwork",
        "destinationAddressPrefixes": [],
        "destinationPortRange": "*",
        "destinationPortRanges": [],
        "direction": "Inbound",
        "etag": "W/\"086d0ae6-7b4b-444a-83de-e3f121b7f6cb\"",
        "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Network/networkSecurityGroups/MyNsg/defaultSecurityRules/AllowVnetInBound",
        "name": "AllowVnetInBound",
        "priority": 65000,
        "protocol": "*",
        "provisioningState": "Succeeded",
        "resourceGroup": "CDPGenCTechServices-2355454-RG",
        "sourceAddressPrefix": "VirtualNetwork",
        "sourceAddressPrefixes": [],
        "sourcePortRange": "*",
        "sourcePortRanges": [],
        "type": "Microsoft.Network/networkSecurityGroups/defaultSecurityRules"
      }
    ]
  }
}
```

### Create NSG Rules to Allow Ports 22 and 80

```
az network nsg rule create --resource-group CDPGenCTechServices-2355454-RG --nsg-name MyNSG --name Allow-SSH --protocol tcp --priority 1000 --destination-port-range 22 --access allow
```

```
az network nsg rule create --resource-group CDPGenCTechServices-2355454-RG --nsg-name MyNsg --name AllowSSH --protocol tcp --direction inbound --priority 1000 --source-address-prefix '*' --source-port-range '*' --destination-address-prefix '*' --destination-port-ranges 22 --access allow
{
  "access": "Allow",
  "destinationAddressPrefix": "*",
  "destinationAddressPrefixes": [],
  "destinationPortRange": "22",
  "destinationPortRanges": [],
  "direction": "Inbound",
  "etag": "W/\"67508c23-febd-4006-b94a-f4040726c7e9\"",
  "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Network/networkSecurityGroups/MyNsg/securityRules/AllowSSH",
  "name": "AllowSSH",
  "priority": 1000,
  "protocol": "Tcp",
  "provisioningState": "Succeeded",
  "resourceGroup": "CDPGenTechServices-2355454-RG",
  "sourceAddressPrefix": "*",
  "sourceAddressPrefixes": [],
  "sourcePortRange": "*",
  "sourcePortRanges": [],
  "type": "Microsoft.Network/networkSecurityGroups/securityRules"
}
```

```
az network nsg rule create --resource-group CDPGenCTechServices-2355454-RG --nsg-name MyNSG --name Allow-HTTP --protocol tcp --priority 2000 --destination-port-range 80 --access allow
```

```
azreuser [ ~ ]$ az network nsg rule create --resource-group CDPGenCTechServices-2355454-RG --nsg-name MyNSG --protocol tcp --direction inbound --priority 1001 --source-address-prefix '*' --source-port-range '*' --destination-address-prefix '*' --destination-port-ranges 80 --access allow
{
  "access": "Allow",
  "destinationAddressPrefix": "*",
  "destinationAddressPrefixes": [],
  "destinationPortRange": "80",
  "destinationPortRanges": [],
  "direction": "Inbound",
  "etag": "W/\"446ea849-fad6-4e70-85f2-682de9247955\"",
  "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Network/networkSecurityGroups/MyNSG/securityRules/AllowHTTP",
  "name": "AllowHTTP",
  "priority": 1001,
  "protocol": "Tcp",
  "provisioningState": "Succeeded",
  "resourceGroup": "CDPGenCTechServices-2355454-RG",
  "sourceAddressPrefix": "*",
  "sourceAddressPrefixes": [],
  "sourcePortRange": "*",
  "sourcePortRanges": [],
  "type": "Microsoft.Network/networkSecurityGroups/securityRules"
}
azreuser [ ~ ]$
```

## Create a Public IP Address

az network public-ip create --resource-group CDPGenCTechServices-2355454-RG --name MyPublicIP

```
"type": "Microsoft.Network/networkSecurityGroups/securityRules"
}
azreuser [ ~ ]$ az network public-ip create --resource-group CDPGenCTechServices-2355454-RG --name MyPublicIP
[Coming breaking change] In the coming release, the default behavior will be changed as follows when sku is Standard and zone is not provided: For zonal regions, you will get a zone-redundant IP indicated by zones:[1","2","3"]; For non-zonal regions, you will get a non zone-redundant IP indicated by zones:null.
{
  "publicIp": {
    "ddosSettings": {
      "protectionMode": "VirtualNetworkInherited"
    },
    "etag": "W/\"a2cde2fe-4153-4362-b448-ae27a03f0a23\"",
    "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Network/publicIPAddresses/MyPublicIP",
    "idleTimeoutInMinutes": 4,
    "ipAddress": "13.89.131.79",
    "ipTags": [],
    "location": "centralus",
    "name": "MyPublicIP",
    "provisioningState": "Succeeded",
    "publicIPAddressVersion": "IPv4",
    "publicIPAllocationMethod": "Static",
    "resourceGroup": "CDPGenCTechServices-2355454-RG",
    "resourceGuid": "e11c82ba-2a8f-4d67-93a4-fadb5fddec",
    "sku": {
```

## Create Network Interface Card (NIC) and Associate it with the Public IP Address and NSG

az network nic create --resource-group CDPGenCTechServices-2355454-RG --name MyNIC --vnet-name MyVnet --subnet MySubnet --network-security-group MyNSG --public-ip-address MyPublicIP

```
azureuser [ ~ ]$ az network nic create --resource-group CDPGenCTechServices-2355454-RG --name MyNic --vnet-name MyVnet --subnet MySubnet --network-security-group MyNSg --public-ip-address MyPublicIP
[ Running ..
```

```
{
  "NewNIC": {
    "auxiliaryMode": "None",
    "auxiliarySku": "None",
    "disableTcpStateTracking": false,
    "dnsSettings": {
      "appliedDnsServers": [],
      "dnsServers": [],
      "internalDomainNameSuffix": "rgb4prjlwc2exgw0scgtjbvpaa.gx.internal.cloudapp.net"
    },
    "enableAcceleratedNetworking": false,
    "enableIPForwarding": false,
    "etag": "W/\\"e20a48a5-47f9-4694-9294-6d37e9ce3404\\\"",
    "hostedWorkloads": [],
    "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Network/networkInterfaces/MyNic",
    "ipConfigurations": [
      {
        "etag": "W/\\"e20a48a5-47f9-4694-9294-6d37e9ce3404\\\"",
        "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Network/networkInterfaces/MyNic/ipConfigurations/ipconfig1",
        "name": "ipconfig1",
        "primary": true,
        "privateIPAddress": "10.0.0.4",
        "privateIPAddressVersion": "IPv4",
        "privateIPAllocationMethod": "Dynamic"
      }
    ],
    "location": "Central US",
    "macAddress": "60-45-BD-32-A3-5B",
    "name": "MyNic",
    "networkSecurityGroup": "MyNSg",
    "privateIPAddress": "10.0.0.4",
    "publicIPAddress": "13.89.131.79",
    "resourceGroup": "CDPGenCTechServices-2355454-RG",
    "tags": {}
  }
}
```

## Create ACR

az acr create --resource-group CDPGenCTechServices-2355454-RG --name anupamregistry --sku Basic

## Create VM

az vm create --resource-group CDPGenCTechServices-2355454-RG --name anupam --image UbuntuLTS2204 --size Standard\_B1s --admin-username anupam --admin-password Anupams@2312 --nics MyNic --location CentralUS --tags Project=DevEnvironment Purpose="Development environment to host tools and test applications"

```
azureuser [ ~ ]$ az vm create --resource-group CDPGenCTechServices-2355454-RG --name anupam --image Ubuntu2204 --size Standard_B1s --admin-username anupam --admin-password Anupams@2312 --nics MyNic --location CentralUS --tags Project=DevEnvironment Purpose="Development environment to host tools and test applications"
{
  "fqdns": "",
  "id": "/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.Compute/virtualMachines/anupam",
  "location": "centralus",
  "macAddress": "60-45-BD-32-A3-5B",
  "powerState": "VM running",
  "privateIpAddress": "10.0.0.4",
  "publicIpAddress": "13.89.131.79",
  "resourceGroup": "CDPGenCTechServices-2355454-RG",
  "zones": ""
}
azureuser [ ~ ]$ ls
Microsoft
```

## Docker Installation on VM

Two ways to install docker-

- 1) sudo apt-get update  
sudo apt-get install docker.io
- 2) sudo snap install docker

```

anupam@anupam:~$ sudo snap install docker
docker 27.2.0 from Canonical/ installed
anupam@anupam:~$ docker

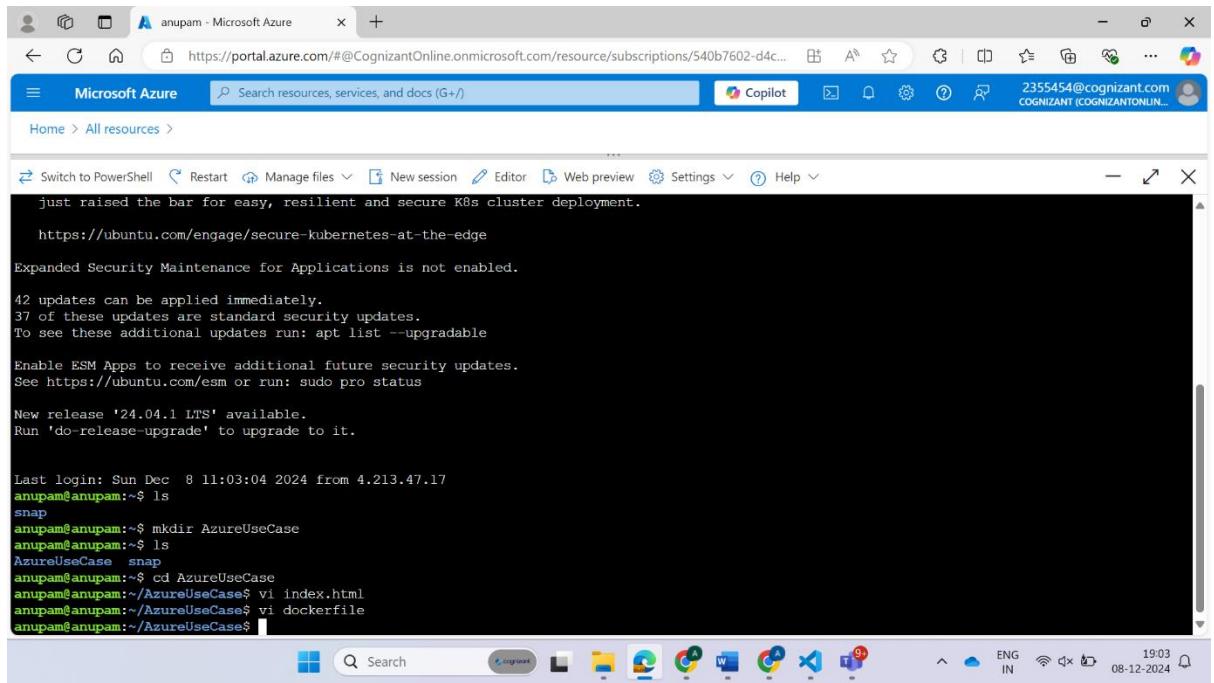
Usage: docker [OPTIONS] COMMAND
A self-sufficient runtime for containers

Common Commands:
  run      Create and run a new container from an image
  exec    Execute a command in a running container
  ps      List containers
  build   Build an image from a Dockerfile

```

## WEB APPLICATION

### Create index.html file and dockerfile



```

Switch to PowerShell  Restart  Manage files  New session  Editor  Web preview  Settings  Help
just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

42 updates can be applied immediately.
37 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

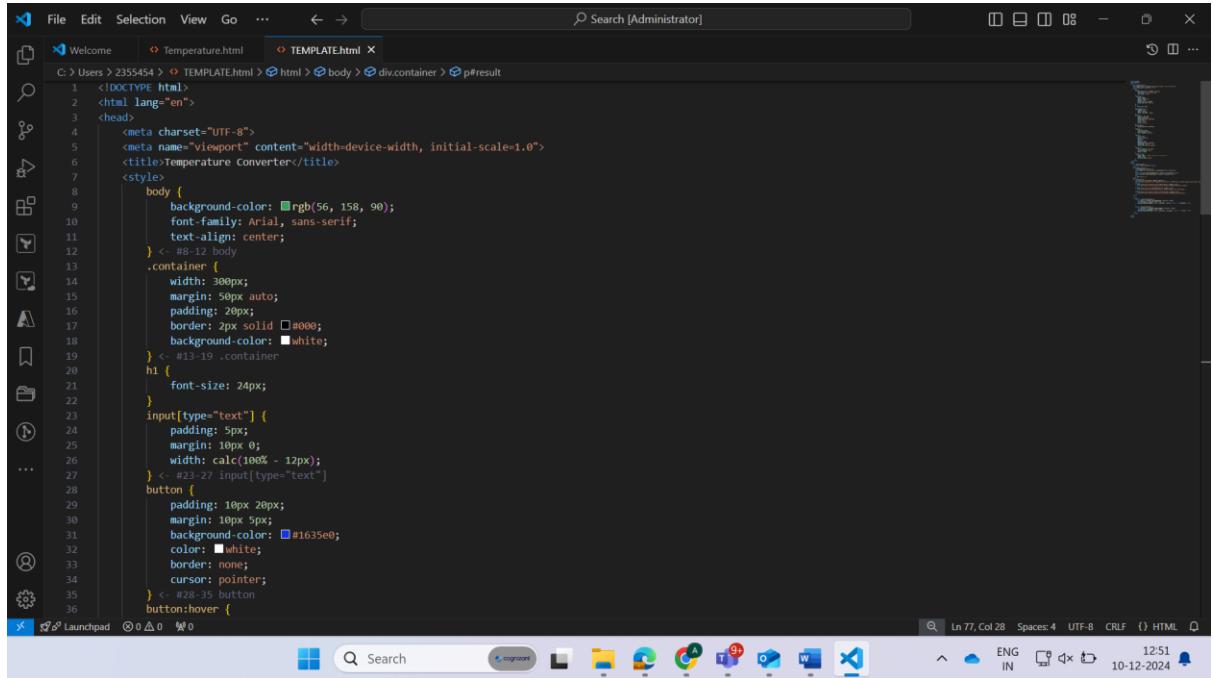
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

New release '24.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Last login: Sun Dec  8 11:03:04 2024 from 4.213.47.17
anupam@anupam:~$ ls
snap
anupam@anupam:~$ mkdir AzureUseCase
anupam@anupam:~$ ls
AzureUseCase  snap
anupam@anupam:~/AzureUseCase$ vi index.html
anupam@anupam:~/AzureUseCase$ vi dockerfile
anupam@anupam:~/AzureUseCase$ 

```

### index.html



```

File Edit Selection View Go ... ← → Search [Administrator]
C:\Users\2355454> Temperature.html  TEMPLATE.html
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>Temperature Converter</title>
7      <style>
8          body {
9              background-color: #rgb(56, 158, 90);
10             font-family: Arial, sans-serif;
11             text-align: center;
12         } <-- #8-12 body
13         .container {
14             width: 300px;
15             margin: 50px auto;
16             padding: 20px;
17             border: 2px solid #000;
18             background-color: #white;
19         } <-- #13-19 .container
20         h1 {
21             font-size: 24px;
22         }
23         input[type="text"] {
24             padding: 5px;
25             margin: 10px 0;
26             width: calc(100% - 12px);
27         } <-- #23-27 input[type="text"]
28         button {
29             padding: 10px 20px;
30             margin: 10px 5px;
31             background-color: ##1635e0;
32             color: #white;
33             border: none;
34             cursor: pointer;
35         } <-- #28-35 button
36         button:hover {

```

File Edit Selection View Go ... ← → Search [Administrator] □ □ □ □ - X

```

<html lang="en">
  <head>
    <style>
      button:hover {
        background-color: #45a049;
      }
      .marquee {
        font-size: 20px;
        margin-bottom: 20px;
        color: #rgb(68, 8, 197);
      } <- #39-43 .marquee
      .footer {
        width: 100%;
        position: fixed;
        bottom: 0;
        left: 0;
        padding: 10px;
        background-color: #b40e0e;
        text-align: center;
        border-top: 2px solid #0000;
      } <- #44-53 .footer
      .footer a {
        color: #rgb(187, 19, 167);
        text-decoration: none;
        margin: 0 10px;
      } <- #54-58 .footer a
      .footer a img {
        width: 30px; /* Adjust the size of the icons */
        height: 30px;
        vertical-align: middle;
      } <- #59-63 .footer a img
    </style>
  </head>
  <body>
    <div class="marquee">
      <marquee>Hello Everyone</marquee>
    </div>
  </body>
</html>

```

Ln 27, Col 10 Spaces: 4 UTF-8 CRLF {} HTML 12:51 10-12-2024

File Edit Selection View Go ... ← → Search [Administrator] □ □ □ □ - X

```

<html lang="en">
  <body>
    <div class="marquee">
    </div>
    <div class="container">
      <h1>Temperature Converter</h1>
      <input type="text" id="tempInput" placeholder="Enter temperature">
      <br>
      <button onclick="convertToFahrenheit()">Convert to Fahrenheit</button>
      <button onclick="convertToCelsius()">Convert to Celsius</button>
      <br>
      <p id="result"></p>
    </div>
    <div class="footer">
      <h2 style="color: #f3808a;">Weather Checker</h2>
      <button style="background-color: #rgb(203, 201, 193);><a href="https://weathera-app12.netlify.app/" target="_blank">check the weather for any place</a></button>
      <br><br>
      <a href="https://www.linkedin.com/in/anupamshukla23/" target="_blank">
        
      </a>
      <a href="https://github.com/ANUPAMSHUKLA-CSE" target="_blank">
        
      </a>
      <a href="https://mail.google.com/mail/u/0/#inbox" target="_blank">
        
      </a>
    </div>
  </body>
</html>

```

Ln 89, Col 64 Spaces: 4 UTF-8 CRLF {} HTML 12:52 10-12-2024

**Code**

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Temperature Converter</title>
    <style>
        body{
            background-color: rgb(56, 158, 90);
            font-family: Arial, sans-serif;
            text-align: center;
        }
        .container {
            width: 300px;
            margin: 50px auto;
            padding: 20px;
            border: 2px solid #000;
            background-color: white;
        }
        h1{
            font-size: 24px;
        }
        input[type="text"]{
            padding: 5px;
            margin: 10px 0;
            width: calc(100% - 12px);
        }
        button{
            padding: 10px 20px;
            margin: 10px 5px;
            background-color: #1635e0;
            color: white;
            border: none;
            cursor: pointer;
        }
        button:hover {
            background-color: #45a049;
        }
        .marquee{
            font-size: 20px;
            margin-bottom: 20px;
            color: rgb(68, 8, 197);
        }
        .footer{
            width: 100%;
            position: fixed;
            bottom: 0;
            left: 0;
```

```

padding: 10px;
background-color: #b40e0e;
text-align: center;
border-top: 2px solid #000;
}
.footer a {
color: rgb(187, 19, 167);
text-decoration: none;
margin: 0 10px;
}
.footer a img {
width: 30px; /* Adjust the size of the icons */
height: 30px;
vertical-align: middle;
}
</style>
</head>
<body>
<div class="marquee">
<marquee>Hello Everyone</marquee>
</div>
<div class="container">
<h1>Temperature Converter</h1>
<input type="text" id="tempInput" placeholder="Enter temperature">
<br>
<button onclick="convertToFahrenheit()">Convert to Fahrenheit</button>
<button onclick="convertToCelsius()">Convert to Celsius</button>
<br>
<p id="result"></p>
</div>
<div class="footer">
<h2 style="color: #f3860a;">Weather Checker</h2>
<button style="background-color: rgb(203, 201, 193); "><a href="https://weatherapp12.netlify.app/" target="_blank">Check the weather for any place</a></button>
<br><br>
<a href="https://www.linkedin.com/in/anupamshukla23/" target="_blank">

</a>
<a href="https://github.com/ANUPAMSHUKLA-CSE" target="_blank">

</a>
<a href="https://mail.google.com/mail/u/0/?ogbl#inbox" target="_blank">

</a>
</div>

<script>
function convertToFahrenheit() {
let celsius = document.getElementById('tempInput').value;

```

```

let fahrenheit = (celsius * 9/5) + 32;
document.getElementById('result').innerHTML = celsius + "°C is " + fahrenheit + "°F";
}

function convertToCelsius() {
    let fahrenheit = document.getElementById('tempInput').value;
    let celsius = (fahrenheit - 32) * 5/9;
    document.getElementById('result').innerHTML = fahrenheit + "°F is " + celsius + "°C";
}
</script>
</body>
</html>

```

```

anupam@anupam ~$ vi index.html
anupam@anupam ~$ vi dockerfile
anupam@anupam ~$ cat index.html
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<title>Temperature Converter</title>
<style>
body {
background-color: #f0f0f0;
font-family: Arial, sans-serif;
text-align: center;
}
.container {
width: 300px;
margin: 50px auto;
padding: 20px;
border: 2px solid #000;
background-color: white;
}
h1 {
font-size: 24px;
}
input[type="text"] {
padding: 5px;
}

```

## dockerfile

```

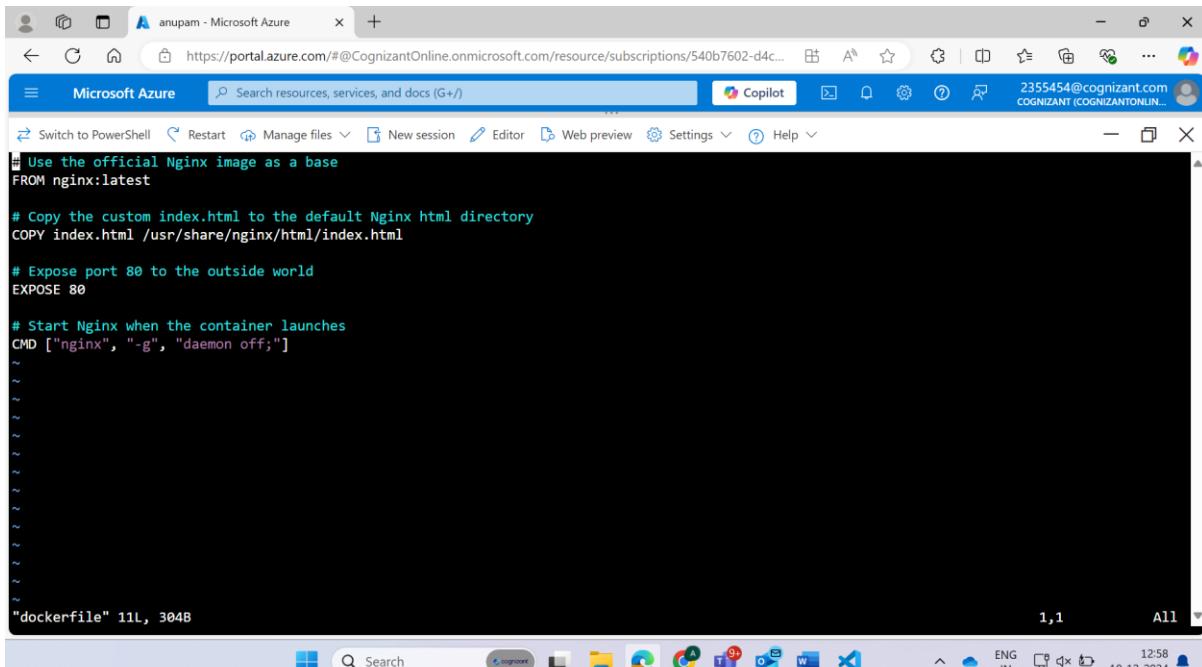
FROM nginx:latest

COPY index.html /usr/share/nginx/html/index.html

EXPOSE 80

CMD ["nginx", "-g", "daemon off;"]

```



```
# Use the official Nginx image as a base
FROM nginx:latest

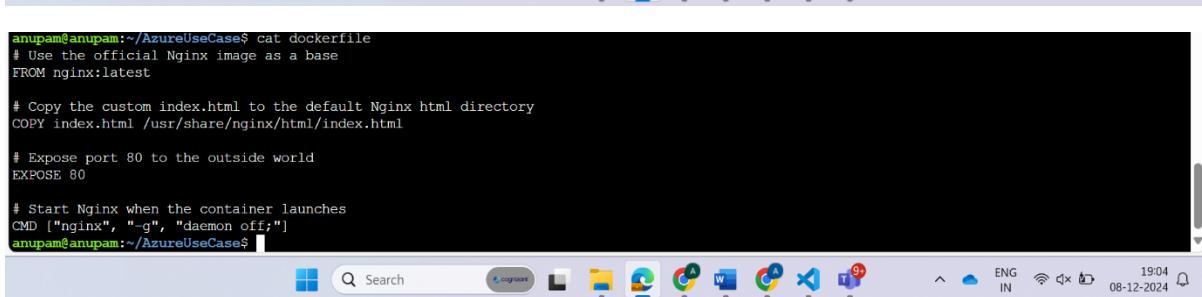
# Copy the custom index.html to the default Nginx html directory
COPY index.html /usr/share/nginx/html/index.html

# Expose port 80 to the outside world
EXPOSE 80

# Start Nginx when the container launches
CMD ["nginx", "-g", "daemon off;"]
```

"dockerfile" 11L, 304B

1,1 All

```
anupam@anupam:~/AzureUseCase$ cat dockerfile
# Use the official Nginx image as a base
FROM nginx:latest

# Copy the custom index.html to the default Nginx html directory
COPY index.html /usr/share/nginx/html/index.html

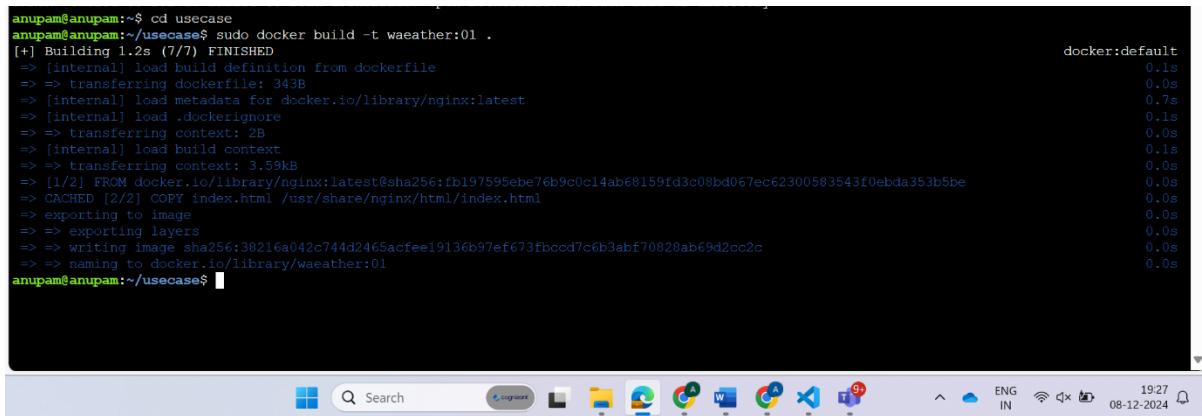
# Expose port 80 to the outside world
EXPOSE 80

# Start Nginx when the container launches
CMD ["nginx", "-g", "daemon off;"]
anupam@anupam:~/AzureUseCase$
```

19:04 08-12-2024

## Create a docker image

docker build -t weather:01 .



```
anupam@anupam:~$ cd usecase
anupam@anupam:~/usecase$ sudo docker build -t waeather:01 .
[+] Building 1.2s (7/7) FINISHED
-> [internal] load build definition from dockerfile
-> => transferring dockerfile: 343B
-> [internal] load metadata for docker.io/library/nginx:latest
-> [internal] load .dockerignore
-> => transferring context: 2B
-> [internal] load build context
-> => transferring context: 3.59kB
-> [1/2] FROM docker.io/library/nginx:latest@sha256:fb197595ebe76b9c0c14ab68159fd3c08bd067ec62300583543f0ebda353b5be
-> = CACHED [2/2] COPY index.html /usr/share/nginx/html/index.html
-> exporting to image
-> => exporting layers
-> => writing image sha256:38216a042c744d2465acfee19136b97ef673fbcccd7c6b3abf70820ab69d2cc2c
-> => naming to docker.io/library/waeather:01
anupam@anupam:~/usecase$
```

19:27 08-12-2024

## Dockerhub

Go to dockerhub and create the repository there and after that in that repository push the image which u have created.

**Create repository**

Namespace: anupam23 Repository Name\*: usecase

Short description: A short description to identify your repository. If the repository is public, this description is used to index your content on Docker Hub and in search engines, and is visible to users in search results.

**Visibility**

Using 0 of 1 private repositories. [Get more](#)

Public [\(?\)](#) Appears in Docker Hub search results

Private [\(?\)](#) Only visible to you

[Cancel](#) [Create](#)

anupam23 / [Repositories](#) / [usecase](#) / [General](#)

anupam23/usecase [\(?\)](#)  
Created less than a minute ago

Add a description [\(?\)](#) INCOMPLETE  
Add a category [\(?\)](#) INCOMPLETE

**Docker commands**  
To push a new tag to this repository: [Public view](#)  
`docker push anupam23/usecase:tagname`

**Tags** [\(?\)](#) INCOMPLETE  
Pushed images appear here.

**Automated builds**  
Manually pushing images to Docker Hub? Connect your account to GitHub or Bitbucket to automatically build and tag new images whenever your code is updated, so you can focus your time on creating.

```
docker login -u anupam23
docker build -t anupam23/usecase:01 .
docker push anupam23/usecase:01
```

```

anupam@anupam - Microsoft Azure      login.docker.com/device/success
https://portal.azure.com/#@CognizantOnline.onmicrosoft.com/resource/subscriptions/540b7602-d4c...  + 
Microsoft Azure  Search resources, services, and docs (G+)  Copilot  Home > All resources >
Switch to PowerShell  Restart  Manage files  New session  Editor  Web preview  Settings  Help
Configure a credential helper to remove this warning. See https://docs.docker.com/engine/reference/commandline/login/#credential-stores
Login Succeeded
anupam@anupam:~/usecase$ docker login -u anupam23
Password:
WARNING! Your password will be stored unencrypted in /home/anupam/.snap/docker/2963/.docker/config.json.
Configure a credential helper to remove this warning. See https://docs.docker.com/engine/reference/commandline/login/#credential-stores
Login Succeeded
anupam@anupam:~/usecase$ sudo docker build -t anupam23/usecase:01 .
[+] Building 1.1s (7/7) FINISHED
=> [internal] load build definition from dockerfile
=> => transferring dockerfile: 343B
=> [internal] load metadata for docker.io/library/nginx:latest
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load build context
=> => transferring context: 32B
=> [1/2] FROM docker.io/library/nginx:latest@sha256:fb197595ebe76b9c0c14ab68159fd3c08bd067ec62300583543f0ebda353b5be
=> CACHED [2/2] COPY index.html /usr/share/nginx/html/index.html
=> exporting to image
=> => exporting layers
=> => writing image sha256:38216a042c744d2465acfee19136b97ef673fbcccd7c6b3abf70828ab69d2cc2c
=> => naming to docker.io/anupam23/usecase:01
anupam@anupam:~/usecase$ 

```

**anupam** Virtual machine

Activity log	Status	Size
Access control (IAM)	Running	Standard B1s (1 vcpu, 1 GiB memory)
Tags	Location	Public IP address 12.89.131.79

```

anupam@anupam:~/usecase$ sudo docker push anupam23/usecase:01
The push refers to repository [docker.io/anupam23/usecase]
4479ad81abe7: Pushed
d32d820bcf1c: Mounted from library/nginx
c28e0f7d0cc5: Mounted from library/nginx
8aa4787a17a: Mounted from library/nginx
b060cc3bd13c: Mounted from library/nginx
2c3a053d7b67: Mounted from library/nginx
fc00b055de35: Mounted from library/nginx
c0f1022b22a9: Mounted from library/nginx
01: digest: sha256:a8fbf795f5a0d9170544a1d33d7ae64f7382d9b67a7213ff679152b18577e240 size: 1986
anupam@anupam:~/usecase$ 

```

## See Docker images

```

anupam@anupam:~$ ls
snap  usecase
anupam@anupam:~$ cd usecase
anupam@anupam:~/usecase$ sudo docker images
REPOSITORY          TAG           IMAGE ID        CREATED         SIZE
anupam23/usecase   01            38216a042c74   37 minutes ago  192MB
waaether            01            38216a042c74   37 minutes ago  192MB

```

## ACR(Azure Container Registry)

### Create Azure Container Registry (ACR)

```
az acr create --resource-group CDPGenCTechServices-2355454-RG --name anupamregistry --sku Basic
```

Switch to PowerShell   Restart   Manage files   New session   Editor   Web preview   Settings   Help

Requesting a Cloud Shell. **Succeeded.**  
Connecting terminal...

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.  
azureuser [ ~ ]\$ az acr create --resource-group CDPGenCTechServices-2355454-RG --name anupamregistry --sku Basic

Microsoft Azure   Search   Copilot   ENG IN   10:26 10-12-2024

Sign in to your account   Sign in to Microsoft Azure   anupamregistry - Microsoft Azure

Home > All resources >

**anupamregistry** Container registry

Search   Move   Delete   Overview   Essentials   JSON View

- Activity log
- Access control (IAM)
- Tags
- Quick start
- Events
- Settings
- Services
- Repository permissions
- Policies
- Monitoring
- Automation
- Help

Resource group (move) CDPGenCTechServices-2355454-RG  
Location Central US  
Subscription (move) Microsoft Azure Enterprise  
Subscription ID 540b7602-d4c7-41d9-ae81-9b1cfaa2f21d  
Soft delete (Preview) Disabled  
Tags (edit) Created For : CCL   Department : CDPGenCTechServices

Get started   Monitoring   Capabilities (9)   Tutorials

Microsoft Azure   Search   Copilot   ENG IN   10:26 10-12-2024

## Login to ACR

docker login anupamregistry.azurecr.io -u token

Sign in to your account   Sign in to Microsoft Azure   anupam - Microsoft Azure

Home >

**anupam** Virtual machine

Search   Overview   Activity log   Access control (IAM)   Tags

Advisor (1 of 6): All network ports should be restricted on network security groups associated to your virtual machine →   Help me copy this VM in any region

Connect   Start   Stop   Hibernate   Capture   Delete   Refresh   Open in mobile   Feedback

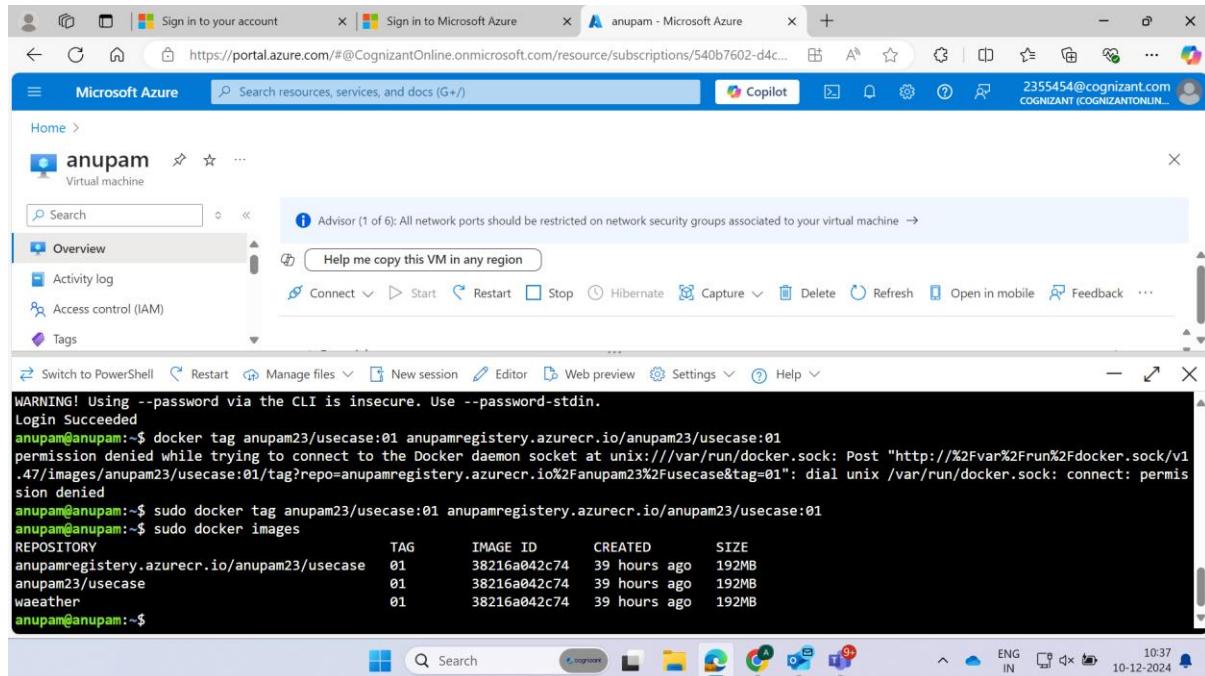
Switch to PowerShell   Restart   Manage files   New session   Editor   Web preview   Settings   Help

```
*** System restart required ***
Last login: Tue Dec 10 04:57:02 2024 from 20.235.219.82
anupam@anupam:~$ sudo docker login anupamregistry.azurecr.io -u 00000000-0000-0000-0000-000000000000 -p eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXVCiSImtpZC16IlBWRTE6SMVRZpRUVEVJ0kpfRTc6TkgzVdpTNEha0k5IRko6UiBTsPwQks0OjRCSEI6V01DtpJssUdxIn0.eyJqdGkiOiJmjZlNzcxZci1YzR1LTQ50tUTyjhMC020tI3MjfjNzIM1MDI1LcJzdW1oIyMzU1NDU0QGNvZ25pemfudC5j2b01lCJuYmY10jE3Nm4MDU40DisImV4cIG6TczMgxNzU4MiawFOiJoxNzMsODA1ObgyLCjpc3Mi0iJBenVyzSBDbz250WluZXIguUmVnaX0cnk1LcJhdQioiJhbnVwYIwzWdpC3Rlcnkuxp1cmVjcispbpbyIsInZlcnpb24i0IxLja1lCJyaWQioiJmZD15NjhkMDMzZGIAMD44yjFhZTnmNzZhYTkzOTFkMCIsImdyWm50X3RScGUoiJyZWzyZXNoX3Rva2VuUiwiYXbwawQioiJiNjC3YzI5MC1jzR1LTrh0GutYTtyWzS05MWhnjUwYTRhymuILCj0Zw5hbnQi0iJkZTA4YzQwny0x0wI5L7QyN0QtowZloc12ZgyyNTQzMDBjYtcilCjwXJtaxNza9ucy16eyJh3Rpzb251jpInJ1YwQ1lCj3cm10Z51s1m1ldGfkYXRhL31YwQ1lCjtZxRhzGf0yS93cm10Z51s1mR1bgV0zS1s1m1ldGfkYXRhL31YwQ1lCjtZxRhzGf0yS93cm10Z51s1mR1bgV0zWQvcvMhZC1sImR1bgV0zWQvcvMzdg9yZS9h3RpB24ixX0sInJvbGVzJzbpxX0.gbi09Dz0WwIwhbt0WlM0jAZ0DNfUqqWvNsry5y1_hDV5rr5RoX3gf39R5mABRKTHPKpn12RyEowikJvQRLLsVbgUohwxM_r82XInjKZe4jWtzXiaX-ZemdxiKFcakeKYXaDdgnz1bRSwCS0mcwUJPFh81NhpRsgvUfIn3oYM7ion8zJF2uyPuSSq07Gtnqj0jy7F8LTrD27hw3Z7aNoWj0ciJRoPh6ovV3jWpawkmQ56qshvUK_SsWB1139CffeoUjUr xuF7Rqm0NtYTle8E-31LDPeTB44zEr6rQ1Hm2wISUFSIX1UDos2brL2CDTnkh33vxE5DW8YE15fr11mA
```

Microsoft Azure   Search   Copilot   ENG IN   10:36 10-12-2024

## Tag the Docker Image

docker tag anupam23/usecase:01 anupamregistry.azurecr.io/anupam23/usecase:01

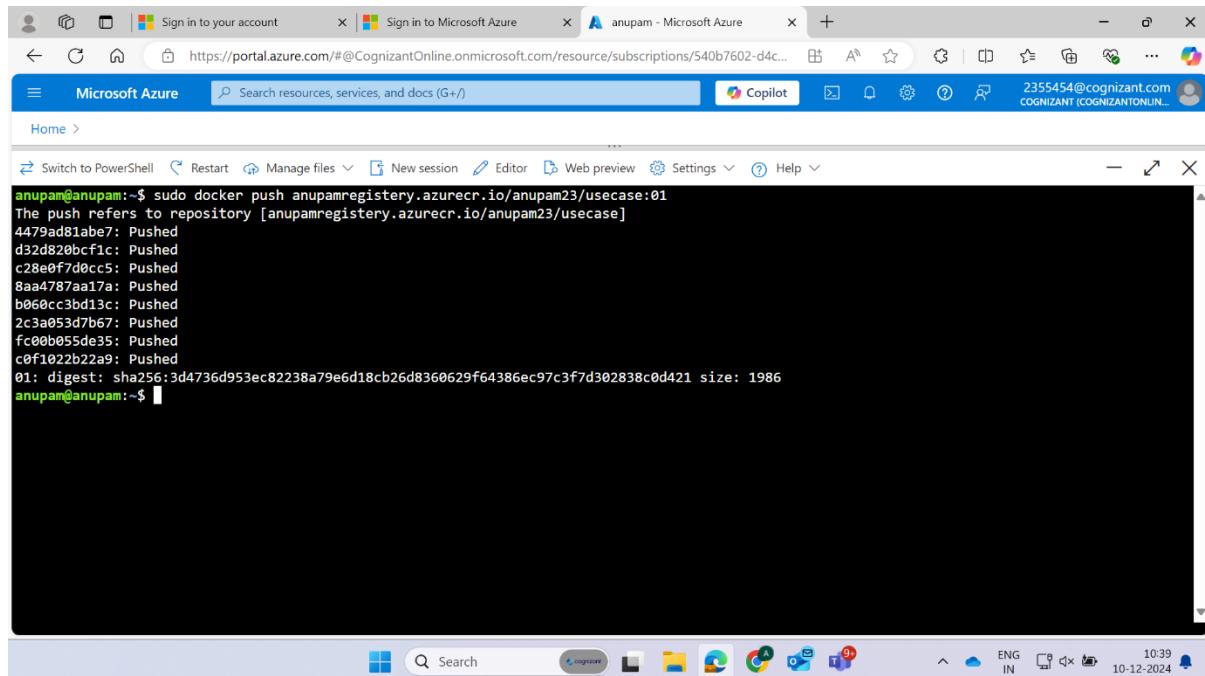


```

WARNING! Using --password via the CLI is insecure. Use --password-stdin.
Login Succeeded
anupam@anupam:~$ docker tag anupam23/usecase:01 anupamregistry.azurecr.io/anupam23/usecase:01
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdocker.sock": dial unix /var/run/docker.sock: connect: permission denied
anupam@anupam:~$ sudo docker tag anupam23/usecase:01 anupamregistry.azurecr.io/anupam23/usecase:01
anupam@anupam:~$ sudo docker images
REPOSITORY          TAG      IMAGE ID   CREATED    SIZE
anupamregistry.azurecr.io/anupam23/usecase  01      38216a042c74  39 hours ago  192MB
anupam23/usecase     01      38216a042c74  39 hours ago  192MB
weather             01      38216a042c74  39 hours ago  192MB
anupam@anupam:~$ 
```

## Push the Docker Image to ACR

docker push anupamregistry.azurecr.io/anupam23/usecase:01



```

anupam@anupam:~$ sudo docker push anupamregistry.azurecr.io/anupam23/usecase:01
The push refers to repository [anupamregistry.azurecr.io/anupam23/usecase]
4479ad81abe7: Pushed
d32d820bcf1c: Pushed
c28e0f7d0cc5: Pushed
8aa4787a1a7a: Pushed
b060cc3bd13c: Pushed
2c3a053d7b67: Pushed
fc00b055de35: Pushed
c0f1022b22a9: Pushed
01: digest: sha256:3d4736d953ec82238a79e6d18cb26d8360629f64386ec97c3f7d302838c0d421 size: 1986
anupam@anupam:~$ 
```

**anupamregistry | Repositories**

Container registry

Search | Refresh | Manage Deleted Repositories

Overview | Activity log | Access control (IAM) | Tags | Quick start | Events | Settings | Services | **Repositories** | Webhooks | Geo-replications | Tasks

New to ACR. Artifact streaming helps pull images faster from AKS clusters. The 'Artifact streaming status' column shows which repositories are using this feature. [Learn more](#)

Search to filter repositories ...

Repositories ↑↓ | Cache Rule

anupam23/usecase

Connected registries

https://portal.azure.com/#@CognizantOnline.onmicrosoft.com/resource/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/CDPGenCTechServices-2355454-RG/providers/Microsoft.ContainerRegistry/registries...

## Create Kubernetes Cluster

**Kubernetes services**

Home > Kubernetes services

Subscription equals all | Type equals all | Resource group equals all | Location equals all | Add filter

No grouping | List view

Name ↑↓	Type ↑↓	Resource group ↑↓	Kuberne... ↑↓	Location ↑↓	Subscription ↑↓	SKU ↑↓

**No Kubernetes**

Use Azure Kubernetes Service to create and manage your own Kubernetes clusters. You can perform tasks such as creating, scaling, and upgrading, freeing up time for other work.

**Automatic Kubernetes cluster (preview)**  
Automated operations for streamlined application deployment.

**Kubernetes cluster**  
Customizable setup for added control and flexibility.

**Add a Kubernetes cluster with Azure Arc**  
Integrate your existing Kubernetes clusters with Azure Arc to benefit from centralized management and governance.

**Create a Kubernetes cluster with Azure Arc**  
Create a new Kubernetes cluster with Azure Arc to benefit from centralized management and governance.

+ Create | Give feedback

The screenshot shows the 'Create Kubernetes cluster' wizard in the Azure portal. The current step is 'Basics'. The 'Cluster preset configuration' dropdown is set to 'Dev/Test'. The 'Kubernetes cluster name' field contains 'azure'. The 'Region' is '(US) Central US', 'Availability zones' is 'Zones 1', and 'AKS pricing tier' is 'Free'. At the bottom, there are 'Previous', 'Next', and 'Review + create' buttons, along with a 'Give feedback' link.

The screenshot shows the 'Create Kubernetes cluster' wizard in the Azure portal. The current step is 'Review + create'. The 'View automation template' link is visible. Under the 'Basics' section, the configuration includes:

- Subscription: Microsoft Azure Enterprise
- Resource group: CDPGenCTechServices-2355454-RG
- Region: Central US
- Kubernetes cluster name: azureAnupam
- Kubernetes version: 1.30.6
- Automatic upgrade: patch
- Automatic upgrade scheduler: Every week on Sunday (recommended)
- Node security channel type: Nodelmage
- Security channel scheduler: Every week on Sunday (recommended)

At the bottom, there are 'Previous', 'Next', and 'Create' buttons, along with a 'Give feedback' link.

The client '2355454@cognizant.com' with object id '1a4dd6a6-8d6b-4622-9eba-591d07702660' does not have authorization to perform action 'Microsoft.Resources/subscriptions/resourceGroups/read' over scope '/subscriptions/540b7602-d4c7-41d9-ae81-9b1cfaa2f21d/resourceGroups/MC\_CDPGenCTechServices-2355454-RG\_azureAnu\_centralus' or the scope is invalid. If access was recently granted, please refresh your credentials.

**Essentials**

Resource group	Kubernetes version
CDPGenCTechServices-2355454-RG	1.30.6
Power state	API server address
Running	azureanupam-dns-tkbod923.hcp.centralus.azmk8s.io
Cluster operation status	Network configuration
Succeeded	Azure CNI Overlay
Subscription	Node pools
Microsoft Azure Enterprise	1 node pool
Location	Container registries
Central US	Attach a registry
Subscription ID	

**Cloud shell**

```
Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.
azureuser [ ~ ]$ az account set --subscription 540b7602-d4c7-41d9-ae81-9b1cfaa2f21d
azureuser [ ~ ]$ az aks get-credentials --resource-group CDPGenCTechServices-2355454-RG --name azureAnupam --overwrite-existing
Merged "azureAnupam" as current context in /home/azureuser/.kube/config
azureuser [ ~ ]$ kubectl create deployment myusecase
error: required flag(s) "image" not set
azureuser [ ~ ]$ kubectl create deployment myusecase --image=anupam23/usecase:01
deployment.apps/myusecase created
azureuser [ ~ ]$
```

**Deployment.yaml**

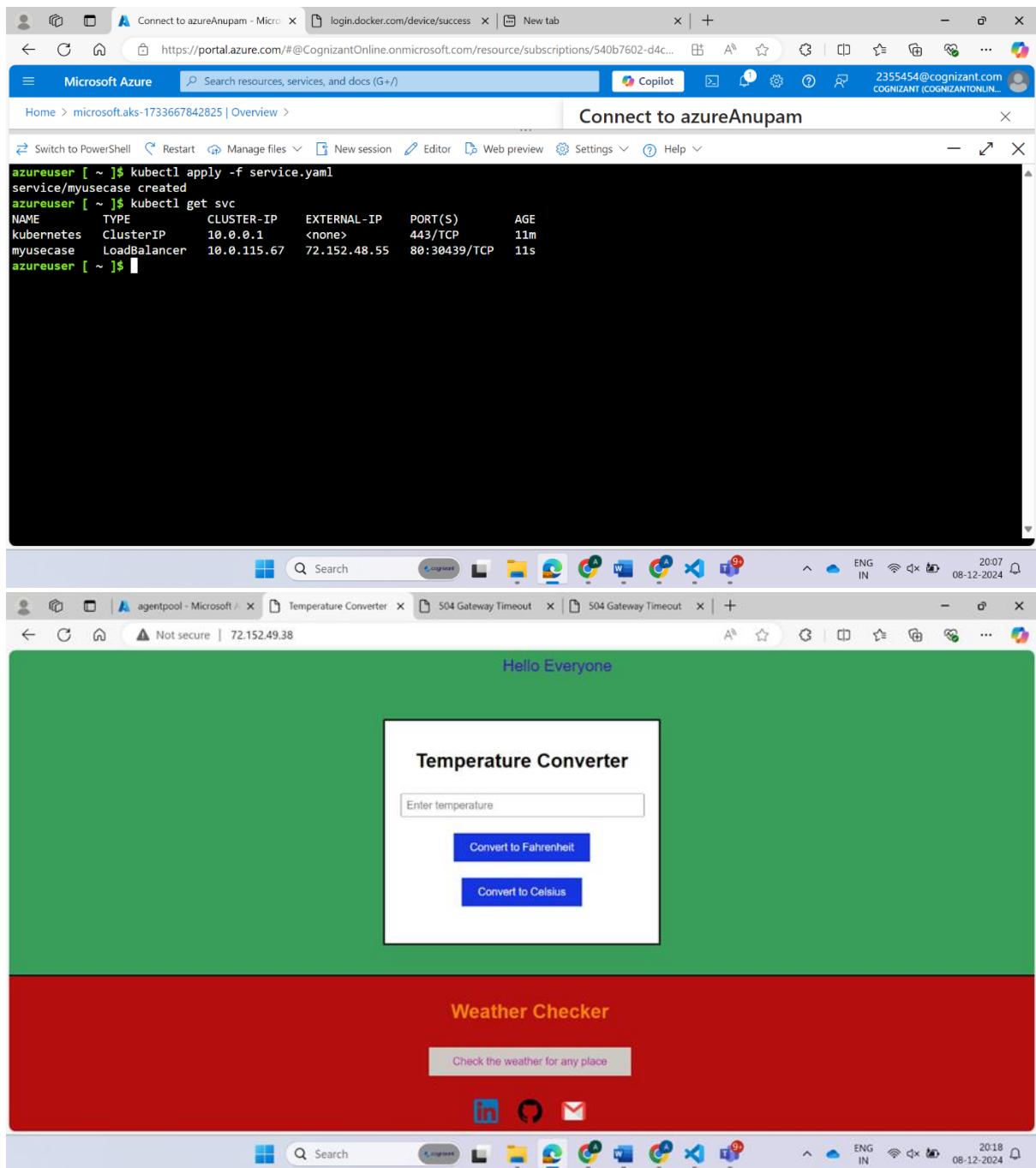
```
apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-container
          image: anupam23/usecase:$(Build.BuildID)
          ports:
            - containerPort: 80
```

`_kubectl apply -f deployment.yaml`

**service.yaml**

```
apiVersion: v1
kind: Service
metadata:
  name: my-service
spec:
  selector:
    app: my-app
  ports:
    - protocol: TCP
      port: 80
      targetPort: 80
  type: LoadBalancer
```

`kubectl apply -f service.yaml`



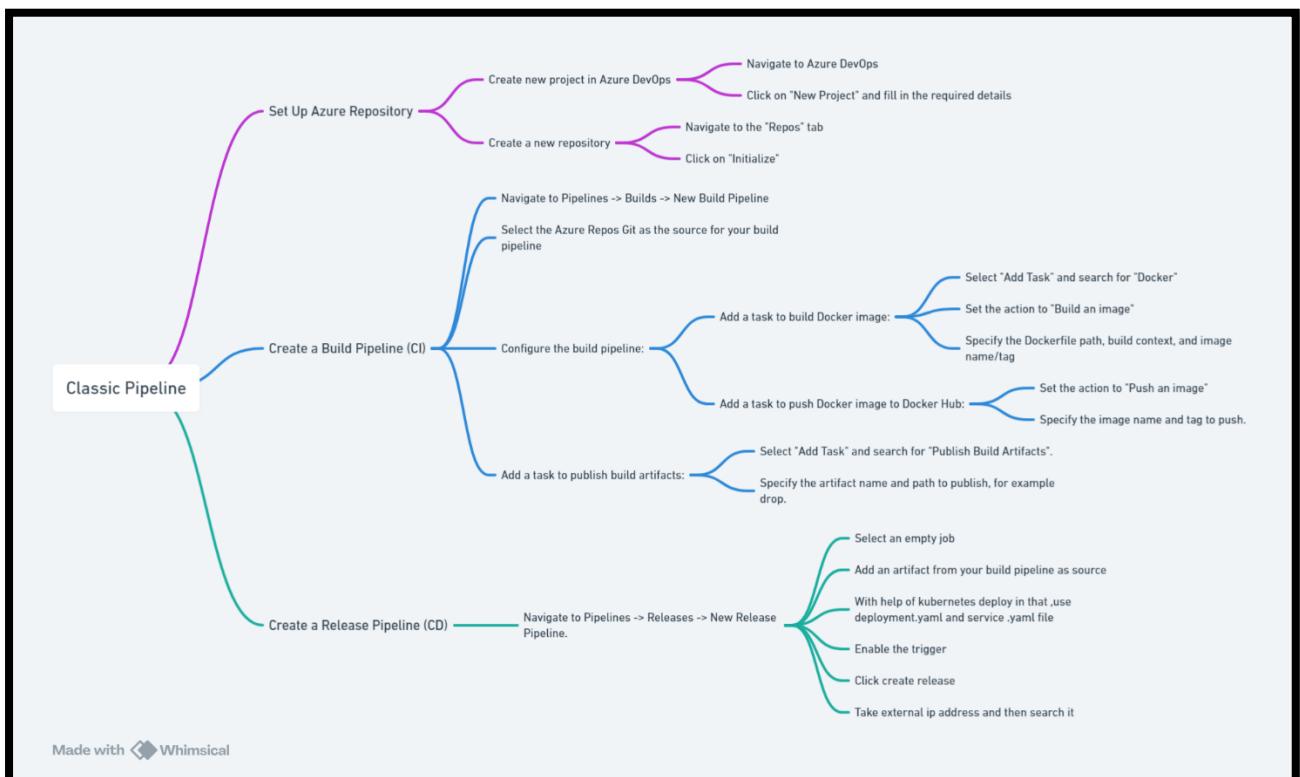
```

NAME          READY   STATUS    RESTARTS   AGE
myusecase-6fc65fd458-cgxst  1/1     Running   0          12m
azureuser [ ~ ]$ kubectl get deployments
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
myusecase     1/1     1           1           12m
azureuser [ ~ ]$ kubectl get svc
NAME            TYPE        CLUSTER-IP      EXTERNAL-IP      PORT(S)        AGE
kubernetes      ClusterIP   10.0.0.1       <none>          443/TCP       20m
myusecase       LoadBalancer 10.0.115.67   72.152.48.55   80:30439/TCP  9m26s
myusecase-service LoadBalancer 10.0.4.171   <pending>       80:31870/TCP  3s
azureuser [ ~ ]$ vi service.yaml
azureuser [ ~ ]$ kubectl apply -f service.yaml
service/myusecase-service created
azureuser [ ~ ]$ kubectl get svc
NAME            TYPE        CLUSTER-IP      EXTERNAL-IP      PORT(S)        AGE
kubernetes      ClusterIP   10.0.0.1       <none>          443/TCP       21m
myusecase       LoadBalancer 10.0.115.67   72.152.48.55   80:30439/TCP  10m
myusecase-service LoadBalancer 10.0.4.171   <pending>       80:31870/TCP  3s
azureuser [ ~ ]$ kubectl delete svc myusecase
service "myusecase" deleted
azureuser [ ~ ]$ kubectl get svc
NAME            TYPE        CLUSTER-IP      EXTERNAL-IP      PORT(S)        AGE
kubernetes      ClusterIP   10.0.0.1       <none>          443/TCP       22m
myusecase-service LoadBalancer 10.0.4.171   72.152.49.38   80:31870/TCP  60s
azureuser [ ~ ]$ 

```

## Automated Deployment Using Azure DevOps Classic Pipeline

This document provides a step-by-step guide to automate the complete deployment process of a web application using **Azure DevOps Classic Pipeline**. The process includes setting up an **Azure Repository**, creating a build pipeline for CI (**Docker build, Docker push, Azure Artifacts**), and a release pipeline for CD (**deploying using deployment.yaml and service.yaml**).



**Steps:****1. Set Up Azure Repository****1. Create a new project in Azure DevOps:**

- Navigate to Azure DevOps.
- Click on "New Project" and fill in the required details.

**2. Create a new repository:**

- Navigate to the "Repos" tab.
- Click on "Initialize" to set up a new repository.
- Clone the repository to your local machine and add your source code, Dockerfile, deployment.yaml, and service.yaml.

**2. Create a Build Pipeline (CI)****1. Navigate to Pipelines -> Builds -> New Build Pipeline.****2. Select the Azure Repos Git as the source for your build pipeline.****3. Configure the build pipeline:**

- **Add a task to build Docker image:**
  - Select "Add Task" and search for "Docker".
  - Select "Docker" task and add it to the pipeline.
  - Set the action to "Build an image".
  - Specify the Dockerfile path, for example \$(Build.SourcesDirectory)/Dockerfile.
  - Set the build context to \$(Build.SourcesDirectory).
  - Specify the image name and tag, for example username/hello-world-app:\$(Build.BuilldId) (replace username with your Docker Hub username).
- **Add a task to push Docker image to Docker Hub:**
  - Add another "Docker" task.
  - Set the action to "Push an image".
  - Specify the image name and tag to push.
- **Add a task to publish build artifacts:**
  - Select "Add Task" and search for "Publish Build Artifacts".
  - Specify the artifact name and path to publish, for example drop.

**3. Create a Release Pipeline (CD)****1. Navigate to Pipelines -> Releases -> New Release Pipeline.****2. Select an empty job to create a new release pipeline.**

**3. Add an artifact:**

- Select your build pipeline as the source for the artifact.

**4. Define the stages:**

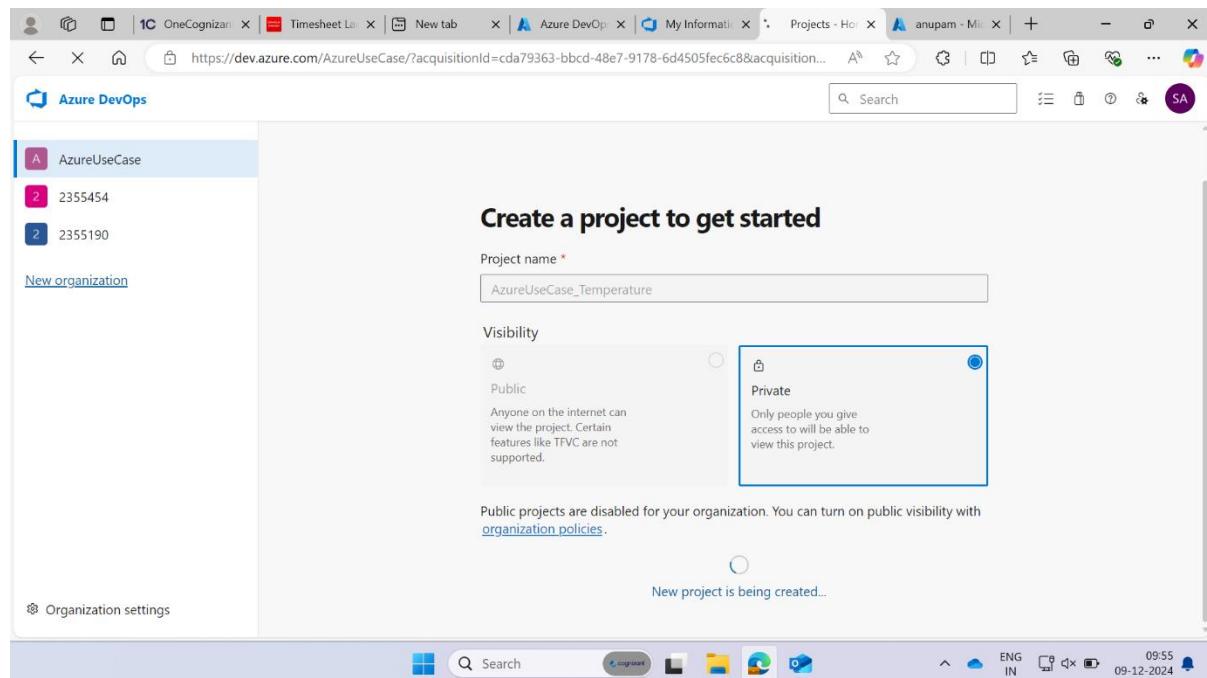
- Click on "Stage 1" and rename it to "Deploy".

**5. Add tasks to the Deploy stage:**

- **Azure CLI task to deploy deployment.yaml:**

- Click on "Add Task".
- Search for "Azure CLI".
- Select "Azure CLI" task and add it to the stage.
- Configure the task with the following settings:
  - **Azure Subscription:** Select your Azure subscription.
  - **Script Location:** Inline script.

## Create a project



The screenshot shows the Azure DevOps interface for the project 'AzureUseCase\_Temperature'. The left sidebar includes links for Overview, Summary, Dashboards, Wiki, Boards, Repos, Pipelines, Test Plans, and Artifacts. The main area features a cartoon illustration of a person working at a desk with a dog. Below the illustration, a prominent message reads 'Welcome to the project! What service would you like to start with?'. The top navigation bar shows multiple tabs and a search bar.

## Git work

Install git

The screenshot shows the Microsoft Azure portal with a virtual machine named 'anupam' selected. The VM details page is visible, including an overview, activity log, access control (IAM), and tags section. A 'Help me copy this VM in any region' button is present. Below the VM details, there is a terminal window showing the command-line session:

```
Last login: Sun Dec  8 14:15:09 2024 from 20.235.223.139
anupam@anupam:~$ ls
snap  usecase
anupam@anupam:~$ sudo apt-get install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
git is already the newest version (1:2.34.1-1ubuntu1.11).
git set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 32 not upgraded.
anupam@anupam:~$
```

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#)

Required fields are marked with an asterisk (\*).

Owner \* Repository name \*

ANUPAM2312 / AzureFinalUseCase

Public Anyone on the internet can see this repository. You choose who can commit.

Private You choose who can see and commit to this repository.

Initialize this repository with:

Add a README file This is where you can write a long description for your project. [Learn more about READMEs](#).

```
git init
```

```
anupam@anupam:~$ git init
hint: Using 'master' as the name for the initial branch. This default branch name
hint: is subject to change. To configure the initial branch name to use in all
hint: of your new repositories, which will suppress this warning, call:
hint:
hint:   git config --global init.defaultBranch <name>
hint:
hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
hint: 'development'. The just-created branch can be renamed via this command:
hint:
hint:   git branch -m <name>
Initialized empty Git repository in /home/anupam/.git/
```

```
'git help -a' and 'git help -g' list available subcommands and some
concept guides. See 'git help <command>' or 'git help <concept>'
to read about a specific subcommand or concept.
See 'git help git' for an overview of the system.
anupam@anupam:~/usecase$ ls
dockerfile index.html
anupam@anupam:~/usecase$ anupam@anupam:~/usecase$ ls
dockerfile index.html
anupam@anupam:~/usecase$ git --version
git version 2.34.1
anupam@anupam:~/usecase$ git clone https://github.com/ANUPAM2312/AzureFinalUseCase.git
```

```
dockerfile index.html
anupam@anupam:~/usecase$ git --version
git version 2.34.1
anupam@anupam:~/usecase$ git clone https://github.com/ANUPAM2312/AzureFinalUseCase.git
Cloning into 'AzureFinalUseCase'...
warning: You appear to have cloned an empty repository.
anupam@anupam:~/usecase$ mv dockerfile
AzureFinalUseCase
mv: missing destination file operand after 'dockerfile'
Try 'mv --help' for more information.
AzureFinalUseCase: command not found
anupam@anupam:~/usecase$ mv dockerfile AzureFinalUseCase
anupam@anupam:~/usecase$ mv index.html AzureFinalUseCase
```

```

Cloning into 'AzureFinalUseCase'...
warning: You appear to have cloned an empty repository.
anupam@anupam:~/usecase$ mv dockerfile
AzureFinalUseCase
mv: missing destination file operand after 'dockerfile'
Try 'mv --help' for more information.
AzureFinalUseCase: command not found
anupam@anupam:~/usecase$ mv dockerfile AzureFinalUseCase
anupam@anupam:~/usecase$ mv index.html AzureFinalUseCase
anupam@anupam:~/usecase$ cd AzureFinalUseCase
anupam@anupam:~/usecase/AzureFinalUseCase$ ls
dockerfile index.html
anupam@anupam:~/usecase/AzureFinalUseCase$ 

```

```

Cloning into 'AzureFinalUseCase'...
warning: You appear to have cloned an empty repository.
anupam@anupam:~/usecase$ mv dockerfile
AzureFinalUseCase
mv: missing destination file operand after 'dockerfile'
Try 'mv --help' for more information.
AzureFinalUseCase: command not found
anupam@anupam:~/usecase$ mv dockerfile AzureFinalUseCase
anupam@anupam:~/usecase$ mv index.html AzureFinalUseCase
anupam@anupam:~/usecase$ cd AzureFinalUseCase
anupam@anupam:~/usecase/AzureFinalUseCase$ ls
dockerfile index.html
anupam@anupam:~/usecase/AzureFinalUseCase$ 

```

git status

```

dockerfile index.html
anupam@anupam:~/usecase/AzureFinalUseCase$ git status
On branch main

No commits yet

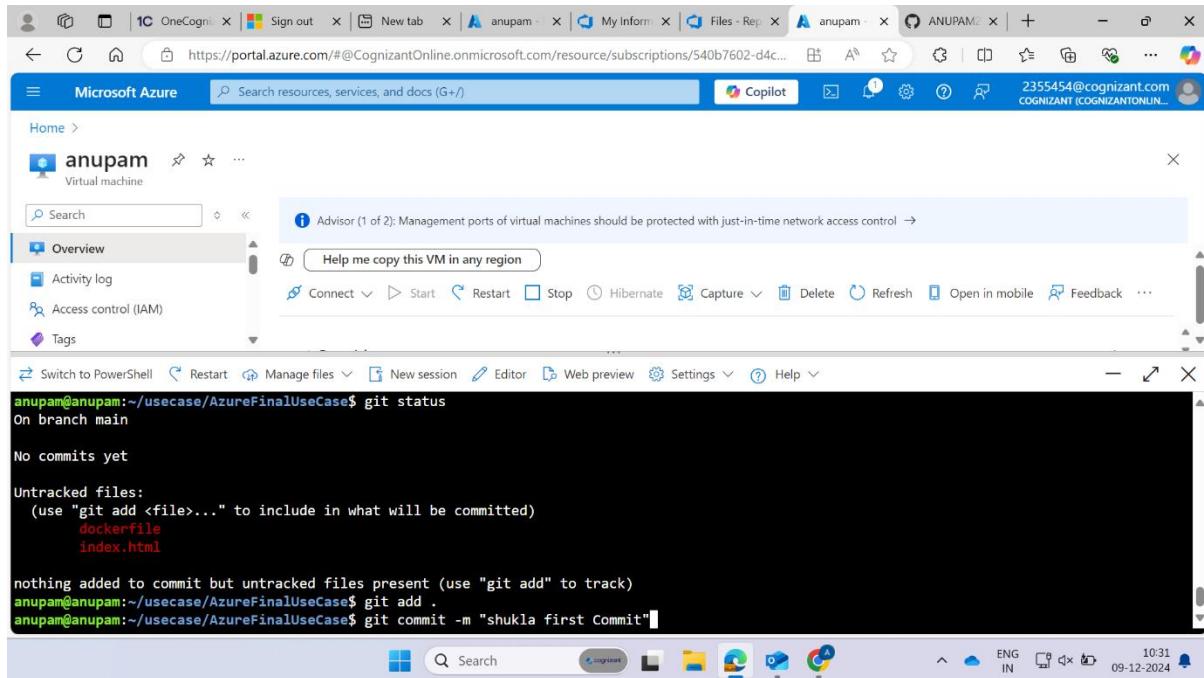
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    dockerfile
    index.html

nothing added to commit but untracked files present (use "git add" to track)
anupam@anupam:~/usecase/AzureFinalUseCase$ 

```

```
git add .
```

```
git commit -m "shukla first commit"
```

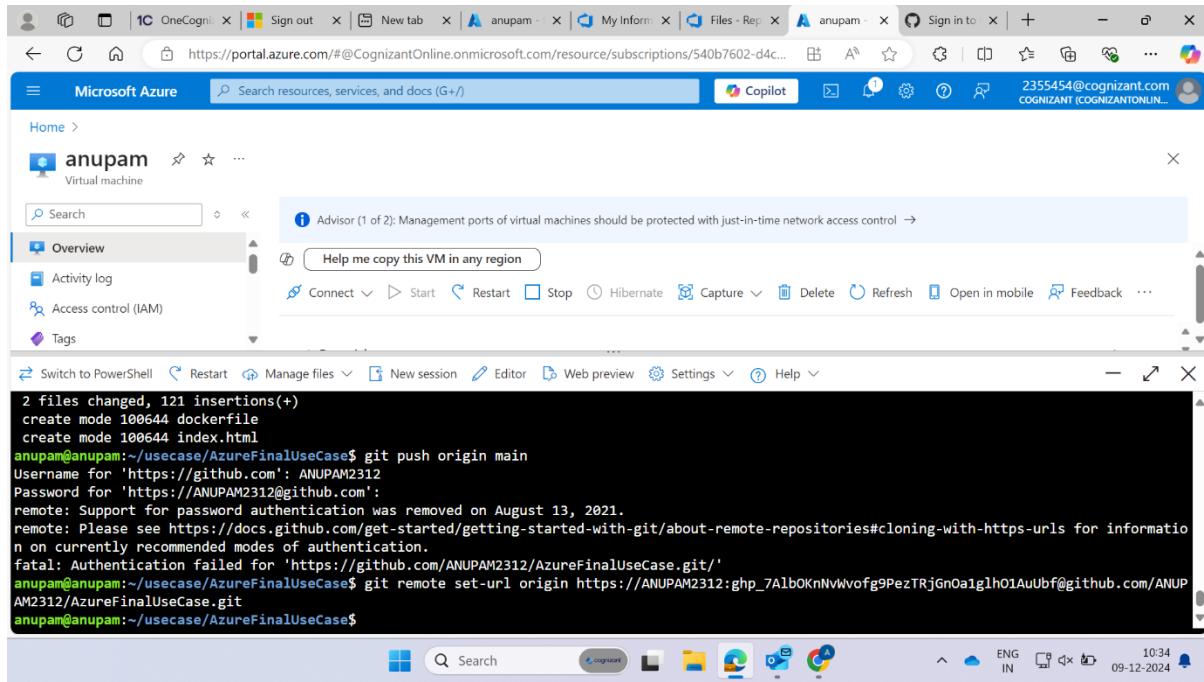


```
anupam@anupam:~/usecase/AzureFinalUseCase$ git status
On branch main
No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    dockerfile
    index.html

nothing added to commit but untracked files present (use "git add" to track)
anupam@anupam:~/usecase/AzureFinalUseCase$ git add .
anupam@anupam:~/usecase/AzureFinalUseCase$ git commit -m "shukla first Commit"
```

```
git push origin main
```



```
2 files changed, 121 insertions(+)
create mode 100644 dockerfile
create mode 100644 index.html
anupam@anupam:~/usecase/AzureFinalUseCase$ git push origin main
Username for 'https://github.com': ANUPAM2312
Password for 'https://ANUPAM2312@github.com':
remote: Support for password authentication was removed on August 13, 2021.
remote: Please see https://docs.github.com/get-started/getting-started-with-git/about-remote-repositories#cloning-with-https-urls for information on currently recommended modes of authentication.
fatal: Authentication failed for 'https://github.com/ANUPAM2312/AzureFinalUseCase.git'
anupam@anupam:~/usecase/AzureFinalUseCase$ git remote set-url origin https://ANUPAM2312:ghp_7AlbOKnNvWvofg9PezTRjGnOa1glh01AuUbf@github.com/ANUPAM2312/AzureFinalUseCase.git
anupam@anupam:~/usecase/AzureFinalUseCase$
```

**Azure Final Use Case**

Welcome to the Azure Final Use Case Project! This project provides a simple and user-friendly interface to convert temperatures between Celsius, Fahrenheit, and Kelvin. Additionally, it features a weather button to check the current weather for any location.

## Features

- Convert Temperatures: Quickly convert temperatures between Celsius, Fahrenheit, and Kelvin.
- Check Weather: Click the weather button to fetch and display the current weather for any location.

## How to Use

- Convert Temperatures:
  - Enter the temperature value.
  - Select the input and output units (Celsius, Fahrenheit, Kelvin).
  - Click on the "Convert" button to see the result.
- Check Weather:
  - Click the "Weather" button.

## Azure Repo

The screenshot shows the 'Import a Git repository' dialog box overlaid on the Azure DevOps interface. The dialog box has the following fields:

- Repository type:** Git (selected)
- Clone URL:** https://github.com/ANUPAM2312/AzureFinalUseCase.git
- Requires Authentication:** Unchecked
- Import:** A large blue button at the bottom right.

The background page shows the 'Azure Use Case' project's repository page with various navigation links like Overview, Boards, Repos, Files, etc.

The screenshot shows the Azure DevOps repository page after the import was successful. The main message is 'Import Successful!' with an icon of a box being moved. Below it, the message reads:

Congratulations! Your https://github.com/ANUPAM2312/AzureFinalUseCase.git repository has been successfully imported.

If you are not automatically redirected to your repository page [Click here to navigate to code view.](#)

The background page shows the 'Azure Use Case' project's repository page with various navigation links like Overview, Boards, Repos, Files, etc.

The screenshot shows the Azure DevOps interface for a repository named 'AzureUseCase\_Temperature'. The left sidebar has 'Files' selected under 'Repos'. The main area displays three files: 'dockerfile', 'index.html', and 'README.md'. A table below shows their details: 'dockerfile' was last changed 10m ago by commit '04bfdaa8' from 'shukla first C...', 'index.html' was last changed 10m ago by commit '04bfdaa8' from 'shukla first C...', and 'README.md' was last changed 3m ago by commit 'a820a601' from 'Create READ...'. Below the table is a section titled 'Azure Final Use Case' with a brief description and a 'Features' list.

Name	Last change	Commits
dockerfile	10m ago	<a href="#">04bfdaa8</a> shukla first C...
index.html	10m ago	<a href="#">04bfdaa8</a> shukla first C...
README.md	3m ago	<a href="#">a820a601</a> Create READ...

This screenshot is identical to the one above, showing the same repository details, file list, commit history table, and 'Azure Final Use Case' section. The only difference is the timestamp in the bottom right corner, which has been updated to '10:41 09-12-2024'.

## Pipeline

The screenshot shows the Azure DevOps interface for a repository named 'AzureUseCase\_Temperature'. The left sidebar has 'Repos' selected. The main area shows the repository structure with files: dockerfile, index.html, and README.md. A 'Set up build' button is present. Below the files, there's a section titled 'Azure Final Use Case' with a brief description and a 'Features' list.

Go to organisational settings if classic editor is not showing in your UI=>**So off the disable creation of classic build and classic release**

The screenshot shows the 'Organization Settings' page under 'Settings'. In the 'General' section, two options are turned off: 'Disable creation of classic build pipelines' and 'Disable creation of classic release pipelines'. Other settings like 'Limit job authorization scope to current project for release pipelines' and 'Protect access to repositories in YAML pipelines' are turned on.

New pipeline

## Where is your code?

- Azure Repos Git (YAML) Free private Git repositories, pull requests, and code search
- Bitbucket Cloud (YAML) Hosted by Atlassian
- GitHub (YAML) Home to the world's largest community of developers
- GitHub Enterprise Server (YAML) The self-hosted version of GitHub Enterprise
- Other Git Any generic Git repository
- Subversion Centralized version control by Apache

Use the classic editor to create a pipeline without YAML.

Select a source


Team project

Repository

Default branch for manual and scheduled builds

Now select the empty job

The screenshot shows the 'Select your repository' step in the Azure DevOps Pipelines interface. On the left, a sidebar lists 'Pipelines', 'Environments', 'Releases', 'Library', 'Task groups', and 'Deployment groups'. The main area has a large circular arrow icon and the text 'Select your repository'. Below it, instructions say 'Tell us where your sources are. You can customize how to get these sources from the repository later.' A 'Select a source' section contains icons for Azure Repos Git, GitHub, GitHub Enterprise Server, Subversion, Bitbucket Cloud, and Other Git. A 'Team project' dropdown is set to 'AzureUseCase\_Temperature'. A 'Repository' dropdown is set to 'AzureUseCase\_Temperature'. A 'Default branch for manual and scheduled builds' dropdown is set to 'main'.

The screenshot shows the 'Pipeline' configuration page. The pipeline consists of a 'Get sources' task and an 'Agent job 1' task. The 'Agent job 1' task is currently empty. The right side of the screen shows configuration options: 'Name' (set to 'AzureUseCase\_Temperature-CI'), 'Agent pool' (set to 'Azure Pipelines'), 'Agent Specification' (set to 'windows-2019'), and 'Parameters' (a note stating 'This pipeline doesn't have any pipeline parameters. Create them to share the most important settings between tasks and change them in one place.'). The bottom of the screen shows the Windows taskbar with various pinned icons.

Now your task is to build and push image through docker and for pushing the docker image we use docker hub

Azure DevOps Pipeline Details:

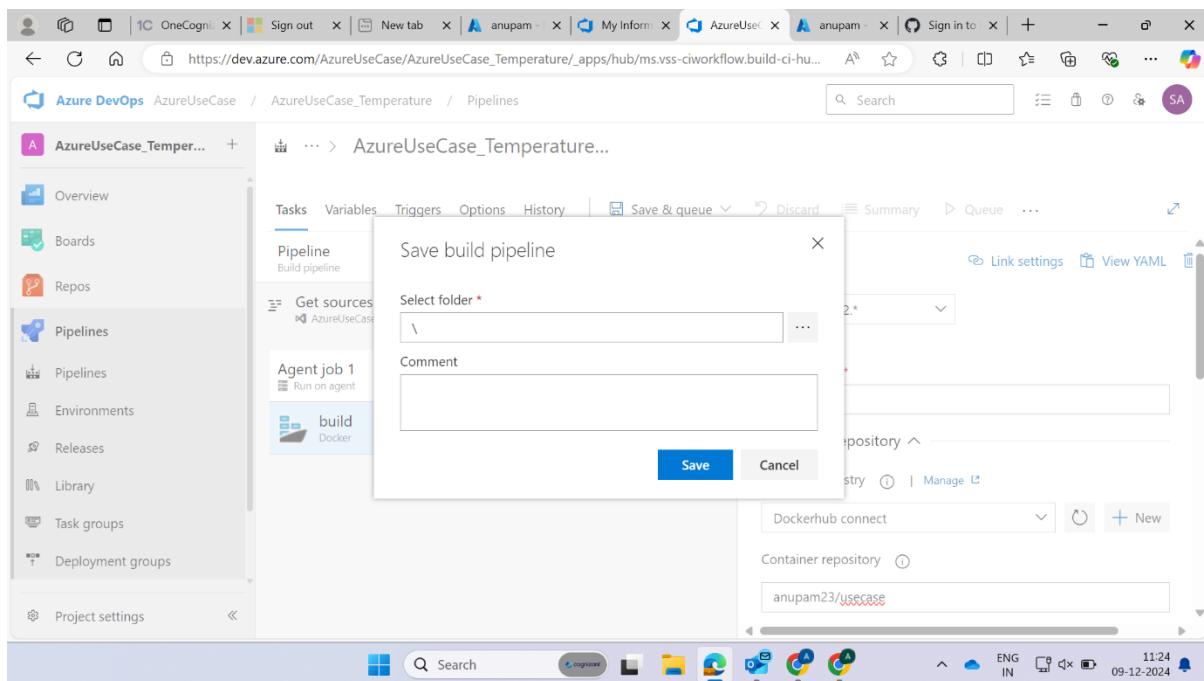
- Name:** AzureUseCase\_Temperature-CI
- Agent pool:** Azure Pipelines
- Agent Specification:** windows-2019
- Parameters:** None

## Docker build

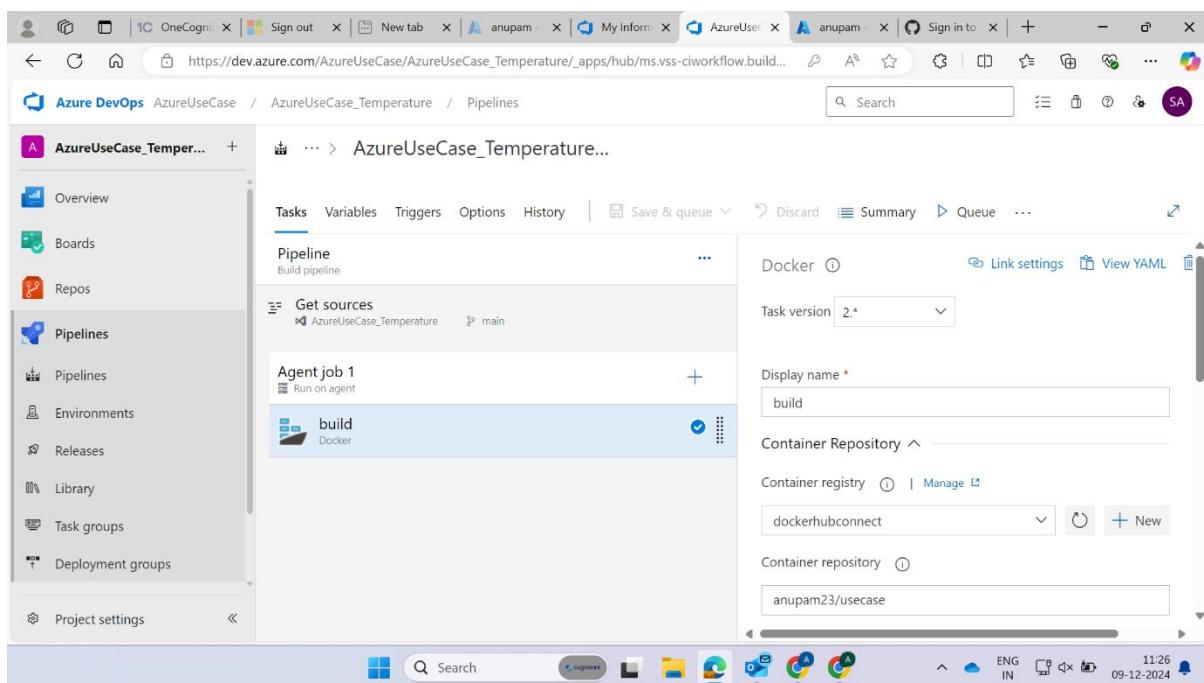
Azure DevOps Pipeline Details:

- Name:** AzureUseCase\_Temperature-CI
- Agent pool:** Azure Pipelines
- Agent Specification:** windows-2019
- Parameters:** None

For docker hub connect use dockerhub username and password



Save it



## Docker push

The screenshot shows the Azure DevOps interface for a pipeline named "AzureUseCase\_Temperature...". The pipeline consists of three tasks: "Get sources", "Agent job 1" (which contains "build" and "Push" tasks), and "Publishing Metadata for pipeline to Evidence... PREVIEW". A modal window titled "Run pipeline" is open, allowing manual execution with parameters like Agent pool (Azure Pipelines), Agent Specification (ubuntu-22.04), and Branch/tag (main). Advanced options for variables and demands are also visible.

## Artifact

The screenshot shows the same pipeline configuration as above, but with a different focus. An "Add tasks" sidebar is open, displaying various Azure DevOps tasks. The "Container Structure Test" task is highlighted, showing its description: "Uses container-structure-test (https://github.com/GoogleContainerTools/container-structure-test) to validate the structure of an image based on four categories of tests - command tests, file existence tests, file content tests and metadata tests." An "Add" button is visible at the bottom right of the sidebar.

The screenshot shows the Azure DevOps Pipelines interface. On the left, the sidebar is open with 'Pipelines' selected. The main area displays a pipeline named 'AzureUseCase\_Temperature...' with tasks: 'Get sources', 'Agent job 1' (which contains 'build' and 'Push' steps), and 'Publishing Metadata for pipeline to Eviden...'. A modal window titled 'Run pipeline' is open, prompting for parameters. It includes fields for 'Agent pool' (set to 'Azure Pipelines'), 'Agent Specification\*' (set to 'ubuntu-22.04'), and 'Branch/tag' (set to 'main'). Under 'Advanced options', there are sections for 'Variables' (1 variable defined) and 'Demands' (This pipeline has no defined demands). At the bottom of the modal are 'Cancel' and 'Save and run' buttons.

Now save and run as well as save and queue

The screenshot shows the Azure DevOps Pipelines interface after a build has been run. The sidebar still shows 'Pipelines' as the active section. The main area displays a 'Summary' card for the 'Manually run by Shukla, Anupam (Cognizant)' build. The card shows details like the repository ('AzureUseCase\_Temperature') and version ('main a820a601'), the time started and elapsed ('Just now 31s'), and related work items ('0 work items 1 consumed'). Below the summary is a 'Warnings' section with one warning message: 'No data was written into the file /home/vsts/work/\_temp/task\_outputs/build\_1733724510061.txt build'. At the bottom is a 'Jobs' table with one entry: 'Agent job 1' (Status: Success, Duration: 20s).

**Manually run by** Shukla, Anupam (Cognizant)

Repository and version	Time started and elapsed	Related	Tests and coverage
AzureUseCase_Temperature main ↗ a820a601	Just now 31s	0 work items	Get started 1 consumed

**Warnings** 1

- No data was written into the file /home/vsts/work/\_temp/task\_outputs/build\_1733724510061.txt build

**Jobs**

Name	Status	Duration
Agent job 1	Success	20s

**Checkout AzureUseCase\_Temperature@main to reUseCase\_Temperature (Git)**

```

1 Starting: Checkout AzureUseCase_Temperature@main to reUseCase_Temperature (Git)
2 =====
3 Task : Get sources
4 Description : Get sources from a repository. Supports Git, TfsVC, and SVN repositories.
5 Version : 1.0.0
6 Author : Microsoft
7 Help : [More Information](https://go.microsoft.com/fwlink/?LinkId=798199)
8
9 git version 2.47.0
10 git lfs version
11 git-lfs/3.5.1 (GitHub; linux amd64; go 1.21.8)
12 git init "/home/vsts/work/1/s"
13 hint: Using 'master' as the name for the initial branch. This default branch name
14 hint: is subject to change. To configure the initial branch name to use in all
15 hint: of your new repositories, which will suppress this warning, call:
16 hint:
17 hint: git config --global init.defaultBranch <name>
18 hint:
19 hint: Names commonly chosen instead of 'master' are 'main', 'trunk' and
20 hint: 'development'. The just-created branch can be renamed via this command:
21
22 hint: git branch -m main

```

## Release pipeline

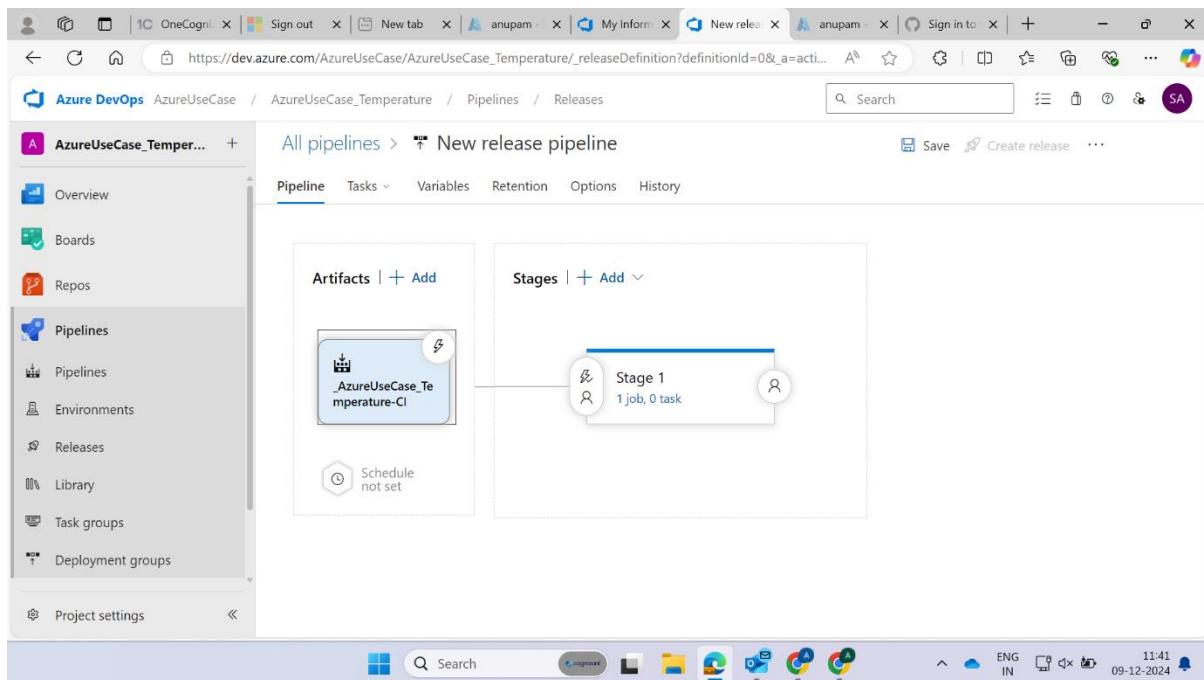
The screenshot shows the Azure DevOps interface for a project named "AzureUseCase\_Temperature". The left sidebar is open, showing options like Overview, Boards, Repos, Pipelines, Environments, Releases (which is selected), Library, Task groups, Deployment groups, and Project settings. The main content area has a heading "No release pipelines found" with a sub-instruction "Automate your release process in a few easy steps with a new pipeline". A prominent blue button labeled "New pipeline" is centered. The bottom of the screen shows a Windows taskbar with various pinned icons.

## Use Deploy to kubernetes

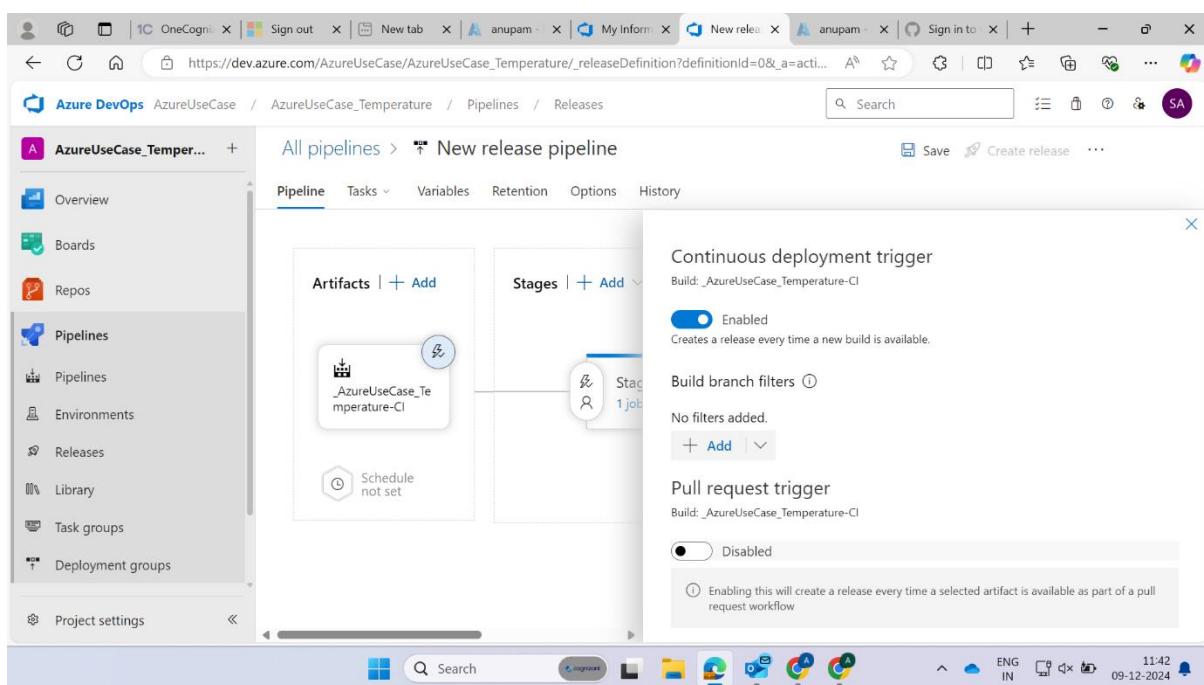
The screenshot shows the "New release pipeline" creation page. The left sidebar is identical to the previous screenshot. The main area starts with a "Select a template" section with a search bar, followed by a "Featured" section listing several deployment templates. The first item is "Azure App Service deployment", which is described as deploying an application to Azure App Service. Below it are other options like "Deploy a Java app to Azure App Service", "Deploy a Node.js app to Azure App Service", "Deploy a PHP app to Azure App Service and Azure Database for MySQL", and "Deploy a Python app to Azure App Service and Azure database for MySQL". The bottom of the screen shows a Windows taskbar.

The screenshot shows the 'Add an artifact' dialog in the Azure DevOps interface. The 'Source type' section is visible, featuring a 'Build' icon with a checkmark, followed by 'Azure Repos ...', 'GitHub', and 'TFVC'. Below these are links for '5 more artifact types' and 'Loading...'. The main pipeline interface is visible in the background.

The screenshot shows the 'Add an artifact' dialog with the 'Project' field set to 'AzureUseCase\_Temperature' and the 'Source (build pipeline)' field set to 'AzureUseCase\_Temperature-Cl'. Other fields shown include 'Default version' (set to 'Latest'), 'Source alias' ('\_AzureUseCase\_Temperature-Cl'), and a note indicating no version is available for the source pipeline. The 'Add' button is at the bottom.



## Enable continuous deployment trigger



The screenshot shows the Azure DevOps Pipelines interface. On the left, there's a sidebar with options like Overview, Boards, Repos, and Pipelines. Under Pipelines, it lists Pipelines, Environments, Releases, Library, Task groups, and Deployment groups. The main area is titled 'All pipelines > New release pipeline'. It shows a 'Pipeline' tab selected, followed by Tasks, Variables, Retention, Options, and History. Below this, there are two sections: 'Artifacts | + Add' and 'Stages | + Add <'. The 'Artifacts' section shows an artifact named '\_AzureUseCase\_Temperature-Cl' with a download icon and a note that 'Schedule not set'. The 'Stages' section shows a single stage named 'Stage 1' with the description '1 job, 0 task'. Above the stages, it says 'Continuous deployment trigger'. At the top right, there are 'Save', 'Create release', and more options. The bottom of the screen shows a Windows taskbar with various icons.

**Earlier in azure repo you don't have service.yaml and deployment.yaml file so add in that or create it**

The screenshot shows the Azure DevOps Repos interface. On the left, there's a sidebar with Options, Overview, Boards, and Repos. Under Repos, it lists Commits, Pushes, Branches, Tags, Pull requests, Advanced Security, and Project settings. The main area shows a repository named 'AzureUseCase\_Temperature'. Inside, there's a 'deployment.yaml' file listed under 'Files'. The file content is shown in a code editor window:

```

apiVersion: apps/v1
kind: Deployment
metadata:
  name: my-deployment
spec:
  replicas: 3
  selector:
    matchLabels:
      app: my-app
  template:
    metadata:
      labels:
        app: my-app
    spec:
      containers:
        - name: my-container
          image: anupam23/usecase:$(Build.BuildID)
          ports:
            - containerPort: 80

```

The code editor includes a 'Committed' message from '90aae45: Added deployment.yaml', a 'Create a pull request' button, and standard edit and copy/paste controls.

The screenshot shows the Azure DevOps interface for a repository named "AzureUseCase\_Temperature". The left sidebar is open with the "Files" tab selected. The main area displays the contents of the "deployment.yaml" file:

```

1 apiVersion: apps/v1
2 kind: Deployment
3 metadata:
4   name: my-deployment
5 spec:
6   replicas: 3
7   selector:
8     matchLabels:
9       app: my-app
10  template:
11    metadata:
12      labels:
13        app: my-app
14    spec:
15      containers:
16        - name: my-container
17          image: anupam23/usecase:${{Build.BuildID}}
18          ports:
19            - containerPort: 80

```

The screenshot shows the Azure DevOps interface for a pipeline named "AzureUseCase\_Temperature". The left sidebar is open with the "Pipelines" tab selected. The main area shows the "New release pipeline" configuration screen. It includes sections for "Artifacts" (containing an artifact named ".AzureUseCase\_Temperature-CI") and "Stages" (with a "Continuous deployment trigger" button and a placeholder for "+ Add a stage").

## Now choose Kubernetes deploy

The screenshot shows the Azure DevOps Pipelines interface. On the left, there's a sidebar with options like Overview, Boards, Repos, Pipelines (selected), Environments, Releases, Library, Task groups, and Deployment groups. The main area is titled 'All pipelines > New release pipeline'. It shows a 'Stage 2 Deployment process' with an 'Agent job Run on agent' step. Below it, a search bar with 'kuber' is used to find tasks. A card for 'Deploy to Kubernetes' is highlighted, showing its description: 'Use Kubernetes manifest files to deploy to clusters or even bake the manifest files to be used for deployments using Helm charts'. There's a blue 'Add' button at the bottom right of the card.

**For that we need Kubernetes cluster connection so go to your Kubernetes cluster and from there open the cloud shell and type `cat .kube/config` and copy the text which it generate because it will used to setup connection and paste in KubeConfig**

The screenshot shows the Microsoft Azure Cloud Shell interface. On the left, there's a sidebar for 'Kubernetes services' with a 'azureAnupam' entry. The main area has tabs for 'Cloud shell' (selected), 'Azure CLI', and 'Run command'. A tooltip on the 'Cloud shell' tab says: '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.' Below this, there's a 'Set cluster context' section with a 'Open Cloud Shell' button. The terminal window shows the following commands being run:

```
Type "az" to use Azure CLI
Type "help" to learn about Cloud Shell

Your Cloud Shell session will be ephemeral so no files or system changes will persist beyond your current session.
azureuser [ ~ ]$ az account set --subscription 540b7602-d4c7-41d9-ae81-9b1cfcaa2f21d
azureuser [ ~ ]$ az aks get-credentials --resource-group CDPGenCTechServices-2355454-RG --name azureAnupam
--overwrite-existing
Merged "azureAnupam" as current context in /home/azureuser/.kube/config
azureuser [ ~ ]$
```

To the right of the terminal, there's a 'Notifications' panel with several log entries:

- Successfully started Kubernetes service 'azureAnupam'. 7 minutes ago
- Successfully stopped Kubernetes service. 59 minutes ago
- Successfully started Kubernetes service 'azureAnupam'. 2 hours ago
- Experiencing authentication issues

**New service connection**

Authentication method

- KubeConfig
- Service Account
- Azure Subscription

**KubeConfig**

```
0VZL50L50K
token:
41mwms9p8wy6nybz9selrv0eu1x18n4kc4zy1yc2ayz2bqib06z
9zu6gc9l26bq4r7e0zua0o66c1qjxee9ig56sj9vtvachace0362i4a
OvekiddBvrlnok8rycu
```

Copy and paste the contents of your KubeConfig file

**Cluster context (optional)**

azureAnupam

Accept untrusted certificates

**Verify**

**Service connection name**

Then verify

**All pipelines > New release pipeline**

**Tasks**

**Stage 2**

**Agent job**

**deploy**

**Kubectlconnection**

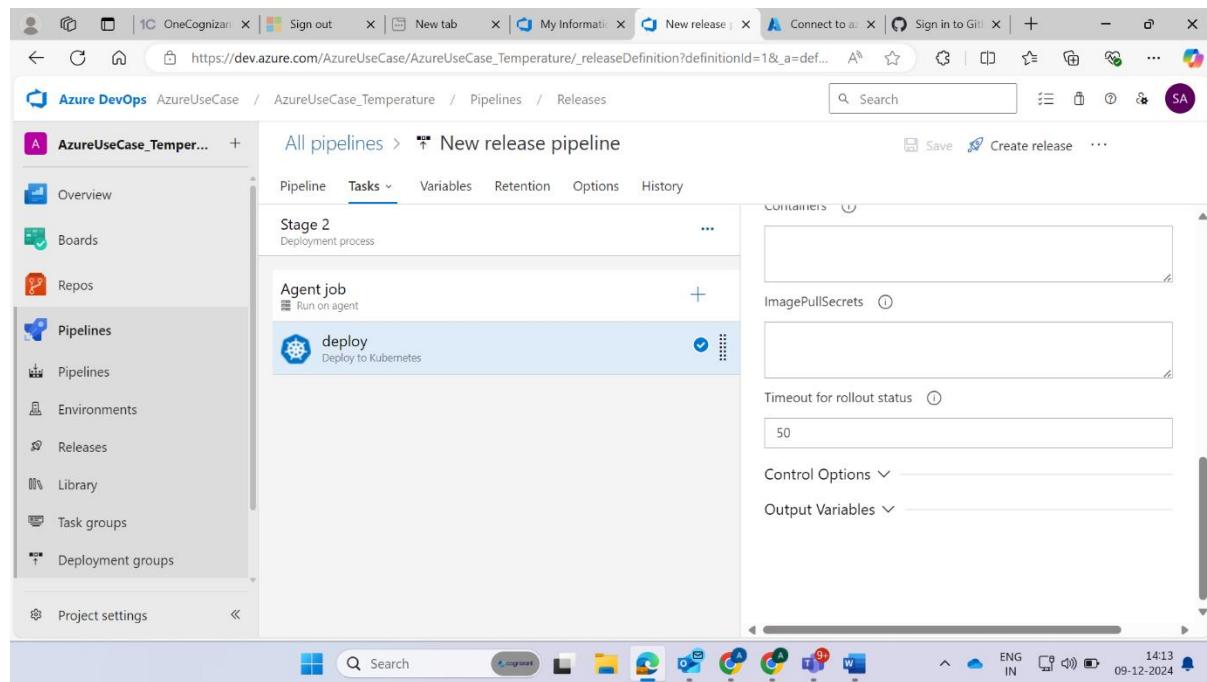
Namespaces

Strategy

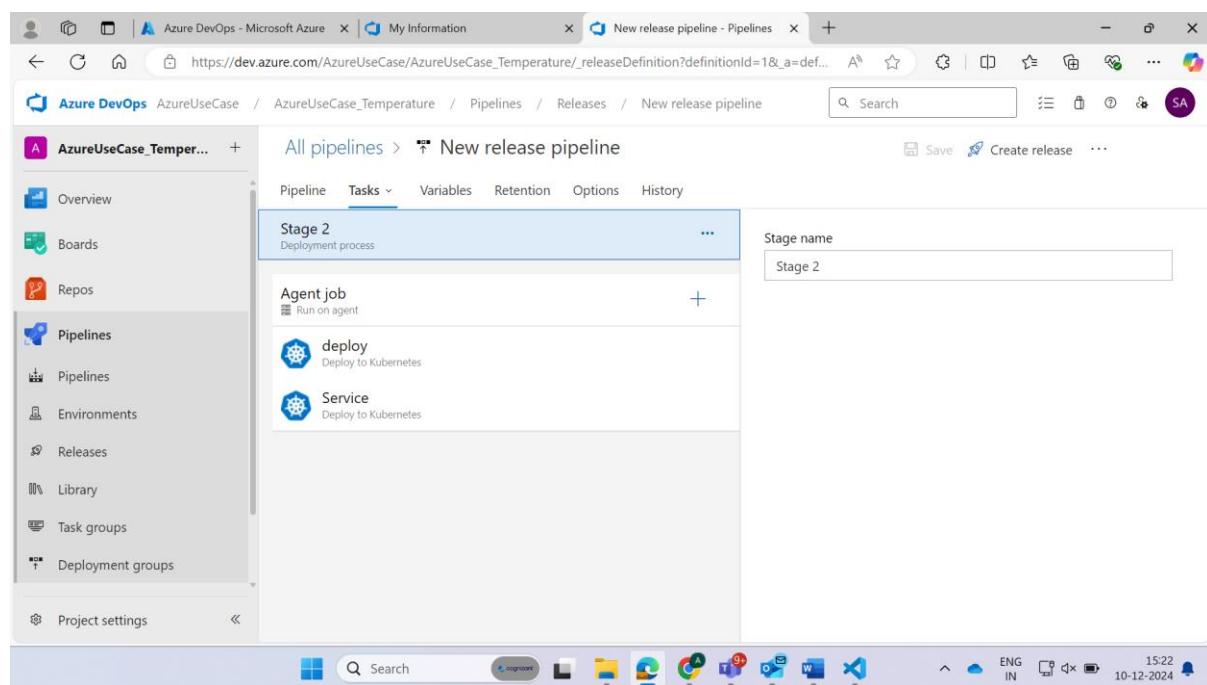
Manifests

Containers

ImagePullSecrets



Similary again choose it and name it service



Click on create release option

The screenshot shows the Azure DevOps interface for a 'New release pipeline' under 'Release-1'. On the left, the 'Pipelines' menu is open, showing options like Overview, Boards, Repos, Pipelines, Environments, Releases, Library, Task groups, Deployment groups, and Project settings. The main area displays a 'Release' card for 'Continuous deployment' (9/12/2024, 2:16 pm) and a 'Stages' section. The 'Stage 2' card shows a progress bar at 3/4 tasks completed, with a duration of 00:06. A tooltip message in the top right corner says: 'No problem. If you change your mind... You can relaunch the What's New dialog by clicking the Help button.'

The screenshot shows the 'Logs' tab for 'Stage 2' of the 'New release pipeline'. The 'Deployment process' is listed as 'In progress'. The 'Agent job' status is also 'In progress'. The log output window shows the deployment task starting, with details about the task type (Deploy to Kubernetes), description (Use Kubernetes manifest files to deploy to clusters or even bake the manifest files to be used for deployments using Helm charts), version (1.247.3), author (Microsoft Corporation), and help link (https://aka.ms/azpipes-k8s-manifest-tsg). It also mentions the connection type (KubernetesServiceConnection) and prepending the PATH environment variable with the Chocolatey bin directory.

```

Starting: deploy
=====
Task      : Deploy to Kubernetes
Description : Use Kubernetes manifest files to deploy to clusters or even bake the manifest files to be used for deployments using Helm charts
Version   : 1.247.3
Author    : Microsoft Corporation
Help      : https://aka.ms/azpipes-k8s-manifest-tsg
=====
Connection type: KubernetesServiceConnection
Prepending PATH environment variable with directory: C:\ProgramData\Chocolatey\bin

```

The screenshot shows the Azure DevOps interface for a release pipeline. The left sidebar is titled 'AzureUseCase\_Temperature' and includes sections for Overview, Boards, Repos, Pipelines (selected), Environments, Releases, Library, Task groups, Deployment groups, and Project settings. The main area displays a 'New release pipeline > Release-1 > Stage 2' with a status of 'Succeeded'. Below this, under 'Deployment process', it says 'Succeeded'. An 'Agent job' section shows a 'Hosted Windows 2019 with ... - Agent: Hosted Agent' pool, started at 9/12/2024, 2:16:57 pm, with a duration of 56s. The job log details five tasks: Initialize job (succeeded, 2s), Download Artifacts (succeeded, 4s), deploy (succeeded, 35s), Service (succeeded, 12s), and Finalize Job (succeeded, <1s). The task names are bolded in the log.

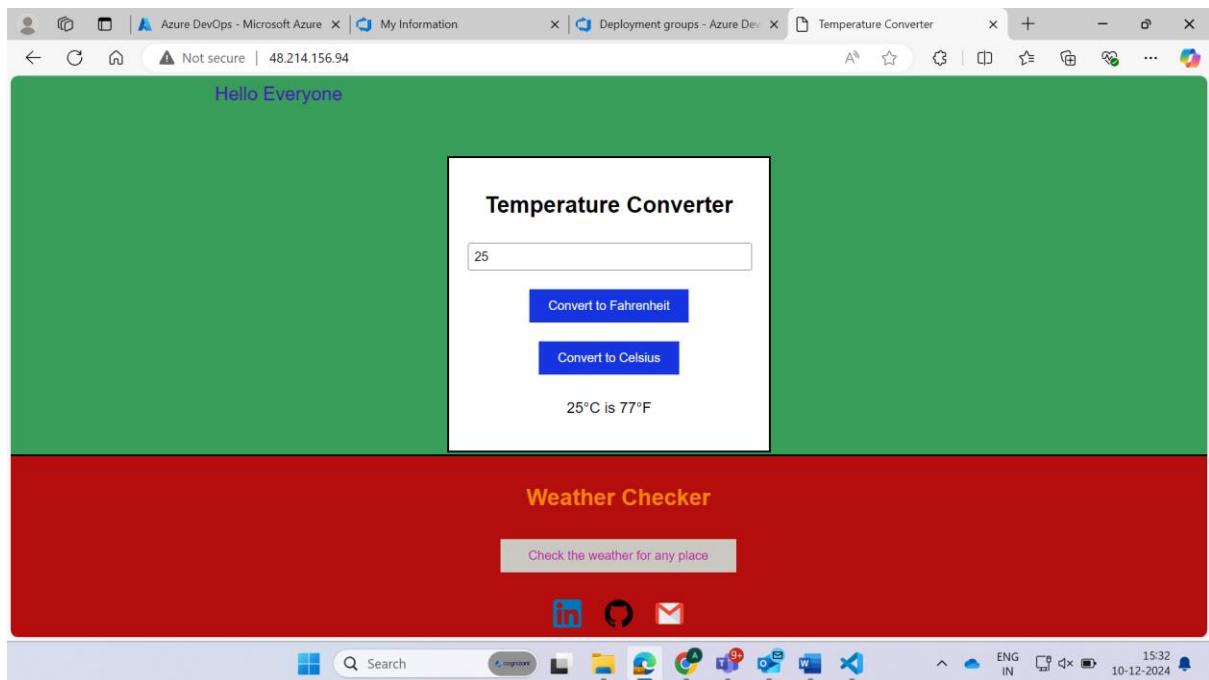
This screenshot is identical to the one above, showing the same Azure DevOps interface, pipeline structure, deployment process status, and agent job details. Both screenshots were taken at 14:17 on 09-12-2024.

```

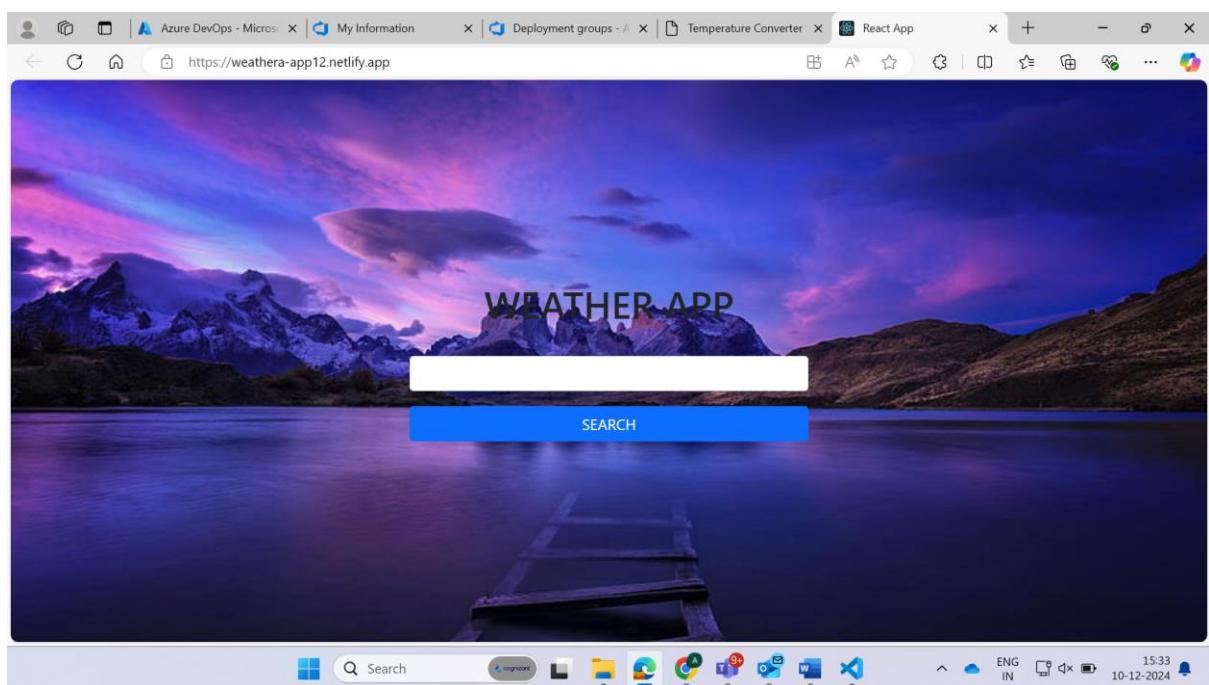
2024-12-09T08:47:53.111093Z
2024-12-09T08:47:53.1110380Z
2024-12-09T08:47:53.1110582Z
2024-12-09T08:47:53.1110918Z
2024-12-09T08:47:53.1111167Z
2024-12-09T08:47:53.1111424Z
2024-12-09T08:47:53.1111685Z
2024-12-09T08:47:53.1111939Z
2024-12-09T08:47:53.1112209Z
2024-12-09T08:47:53.1112485Z
2024-12-09T08:47:53.1112742Z
2024-12-09T08:47:53.1113019Z
2024-12-09T08:47:53.1113285Z
2024-12-09T08:47:53.1113544Z
2024-12-09T08:47:53.1113800Z
2024-12-09T08:47:53.1114062Z
2024-12-09T08:47:53.1114335Z
2024-12-09T08:47:53.1114591Z
2024-12-09T08:47:53.1114838Z
2024-12-09T08:47:53.1115089Z
2024-12-09T08:47:53.1115362Z
2024-12-09T08:47:53.1115585Z
2024-12-09T08:47:53.1115973Z service my-service external IP is 48.214.156.94
2024-12-09T08:47:53.4048726Z [command]C:\ProgramData\chocolatey\bin\kubectl.exe annotate -f D:\a\_temp\Service_my-service_1733734
2024-12-09T08:47:53.6848204Z service/my-service annotated
2024-12-09T08:47:53.0490893Z ##[section]Finishing: Service

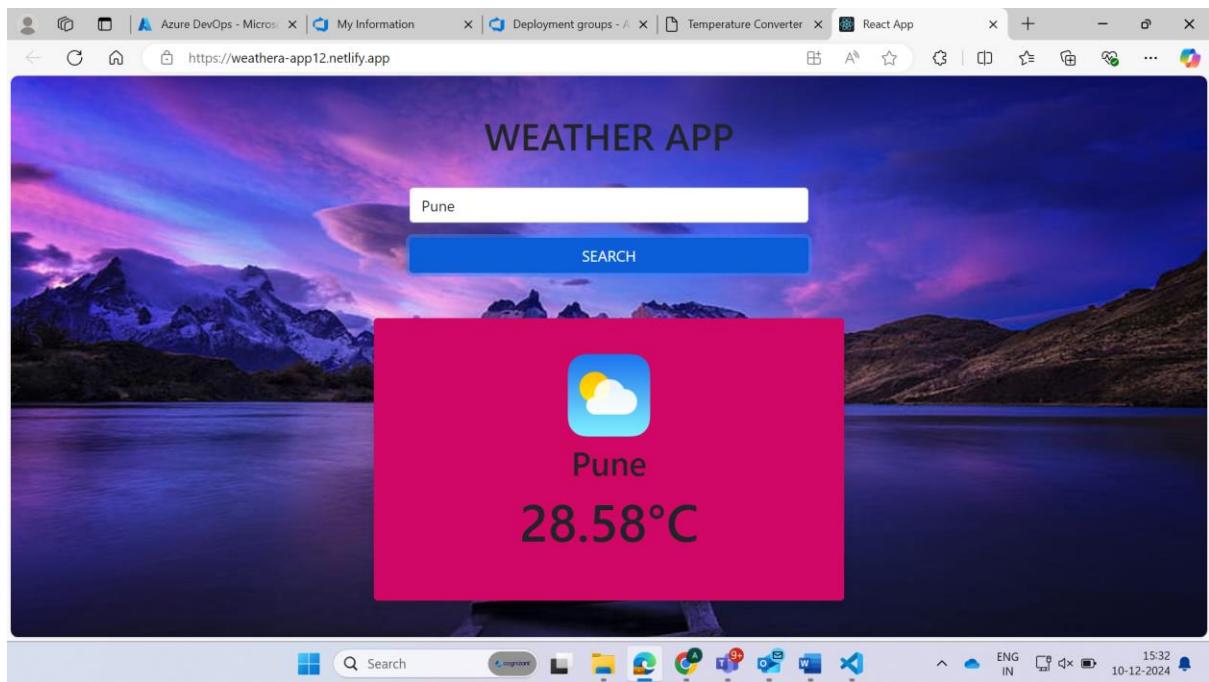
```

Now by using external ip we can see our deployment

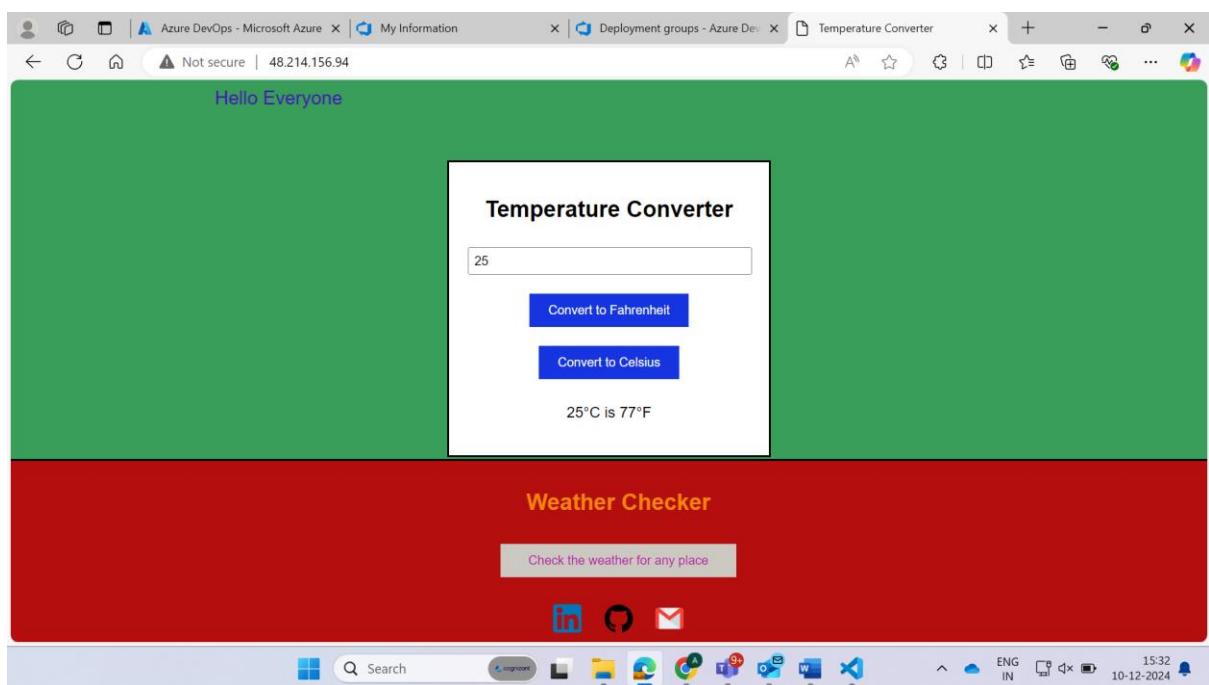


When we click on weather app button then output





When click on linkedin icon then linkedin will be opened



**ANUPAM SHUKLA** Programmer Analyst Trainee | 5 ★ in Problem Solving in Hackerrank  
Lucknow, Uttar Pradesh, India · [Contact info](#)

500+ connections

[Open to](#) [Add profile section](#) [Enhance profile](#) [Resources](#)

[Open to work](#) Frontend Web Developer, Software Engineer, Asso... [Show details](#)

**Profile** English **Public** www.linkedin.com/in/anupamshukla23 **Focused** Other

Pratik Mane You sent an attachment Dec 5

Karthick Muralitharan You sent an attachment Dec 5

Nick Stojanovich Sponsored Join Our Upcoming Hands-On Lab Dec 4

Franklin Tavarez LinkedIn Offer Hi there, ANUPAM! My name is Frankli... Nov 26

Harshit Garg You sent an attachment Nov 24

When click on github icon then output

Not secure | 48.214.156.94

Hello Everyone

**Temperature Converter**

25

Convert to Fahrenheit

Convert to Celsius

25°C is 77°F

**Weather Checker**

Check the weather for any place

[in](#) [Share](#) [Email](#)

The screenshot shows the GitHub profile of the user ANUPAMSHUKLA-CSE. The profile page includes a circular profile picture composed of green squares, a repository count of 13, and links for Overview, Repositories, Projects, Packages, and Stars. Below this, a section titled "Popular repositories" lists six public repositories:

- TRAINING-OF-MERN**: JavaScript, Public
- REACTROUTER**: JavaScript, Public. Description: THIS CONTAIN CODE RELATED TO THE REACT ROUTER.
- NODEJS-LEARN**: JavaScript, Public
- WEATHER-APP**: JavaScript, Public. Description: For making this project we use REACT and API to predict weather of any city.
- PLACEMENT-**: JavaScript, Public
- CLIPFLIX**: JavaScript, Public

When click on gmail icon then output

The screenshot shows a Microsoft Edge browser window displaying a React application. The application has a green header with the text "Hello Everyone". Below this is a white box titled "Temperature Converter" containing a text input with the value "25", two blue buttons ("Convert to Fahrenheit" and "Convert to Celsius"), and a message "25°C is 77°F". Below this is a red box titled "Weather Checker" with a text input field "Check the weather for any place" and three social media icons (LinkedIn, GitHub, and Email).

Gmail in:sent

Compose

Inbox 4,601

Starred

Snoozed

**Sent**

More

Labels

Any time

Has attachment

To

Advanced search

1–50 of 242 < >

- To: ANUPAMSHUKL. (no subject) - [18/11, 4:17 pm] Sri Hari Cognizant: Write a script that check disk usage f...
- To: Prashanth Regarding getting job - Dear Sir, Hope you are doing well. I recently interviewed with y...
- To: 23554544 ... 4 (no subject) - On Sun, Nov 3, 2024 at 8:52 PM <postmaster@cognizant.com> wr...
- To: Baroda 2 (no subject) - Baroda BNP Paribas Mutual Fund - SIP Ceased Intimation - Sir i want to continu...
- To: Prashanth 2 (no subject) - Update on the Early Talent Program 2024 - Hi sir, Hope you are doing...
- To: ANUPAMSHUKL. (no subject) - Asynchronous Actions - 1 Introduction: We have added a new play at the...
- To: ANUPAMSHUKL. (no subject) - name: Deploy a web application hosts: db\_and\_web\_server vars: db\_n...
- To: ANUPAMSHUKL. (no subject) - name: Deploy a web application hosts: db\_and\_web\_server tasks: - na...
- To: ANUPAMSHUKL. (no subject) - https://www.linkedin.com/in/anupamshukla23/

Search

ENG IN 15:36 10-12-2024

Sign out New tab My Information Releases - Pip azureAnupan Sign in to GitHub +

Azure DevOps AzureUseCase / AzureUseCase\_Temperature / Pipelines / Releases

AzureUseCase\_Temp... +

Overview Boards Repos Pipelines Environments Releases Library Task groups Deployment groups Project settings

Search all pipelines

New release pipeline Stage 2

New release pipeline Stage 2

**New release pipeline**

Edit Create release

Releases Deployments Analytics All releases

Created Stages

SA Release-2 5 main 9/12/2024, 2:25:10 pm Stage 2

SA Release-1 3 main 9/12/2024, 2:16:42 pm Stage 2

Search

ENG IN 14:30 09-12-2024

Now if we want to do one more release click again on create release

Azure DevOps - Microsoft Azure | My Information | New release pipeline - Release-3 | +

Azure DevOps / AzureUseCase\_Temperature / Pipelines / Releases / New release pipeline / Release-3

New release pipeline > Release-3

Pipeline Variables History + Deploy Cancel Refresh Edit ...

**Release**

Manually triggered by Shukla, Anupam (Co... on 10/12/2024, 3:27 pm

Artifacts

- \_AzureUseCase\_Temper... 5 main
- \_AzureUseCase\_Temper... f2f98b76 main

**Stages**

Stage 2 Succeeded on 10/12/2024, 3:30 pm

Overview Boards Repos Pipelines Pipelines Environments Releases Library Task groups Deployment groups Project settings

Azure DevOps - Microsoft Azure | My Information | Deployment groups - Azure DevOps | +

Azure DevOps / AzureUseCase\_Temperature / Pipelines / Releases / New release pipeline / Release-3

New release pipeline > Release-3 > Stage 2 ✓ Succeeded

← Pipeline Tasks Variables Logs Tests Deploy Cancel Refresh Download all logs Edit ...

Deployment process Succeeded

Agent job Succeeded

**Agent job** Started: 10/12/2024, 3:29:31 pm  
Pool: Hosted Windows 2019 with ... Agent: Hosted Agent ... 42s

Step	Status	Duration
Initialize job	succeeded	4s
Download Artifacts	succeeded	3s
deploy	succeeded	31s
Service	succeeded	3s
Finalize Job	succeeded	<1s

Logs

Overview Boards Repos Pipelines Pipelines Environments Releases Library Task groups Deployment groups Project settings

The screenshot shows the Azure DevOps interface for managing releases. The left sidebar navigation includes Overview, Boards, Repos, Pipelines, Environments, and the currently selected Releases. The main content area displays the "New release pipeline" screen under the "Releases" tab. It lists three releases: "Release-3" (Created 10/12/2024, 3:27:18 pm), "Release-2" (Created 9/12/2024, 2:25:10 pm), and "Release-1" (Created 9/12/2024, 2:16:42 pm). All three releases are shown in the "Stage 2" stage. The bottom taskbar shows various pinned icons and system status.

Release	Created	Stages
Release-3	10/12/2024, 3:27:18 pm	Stage 2
Release-2	9/12/2024, 2:25:10 pm	Stage 2
Release-1	9/12/2024, 2:16:42 pm	Stage 2