

PROJECT 2:

PREREQUISITES

```
Microsoft Windows [Version 10.0.22000.2538]
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C:\Users\praneet>python --version
Python 3.12.1

C:\Users\praneet>cd AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Python 3.12

C:\Users\praneet\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Python 3.12>py -m venv venv

C:\Users\praneet\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Python 3.12>venv\Scripts\activate

(venv) C:\Users\praneet\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Python 3.12>pip install django
Collecting django
  Obtaining dependency information for django from https://files.pythonhosted.org/packages/97/67/6804ff6fc4fa6df188924412601cc418ddc2d0a500963b0801a97b7ec08a/Django-5.0.1-py3-none-any.whl.metadata
  Downloading Django-5.0.1-py3-none-any.whl.metadata (4.2 kB)
Collecting asgiref<4,>=3.7.0 (from django)
  Obtaining dependency information for asgiref<4,>=3.7.0 from https://files.pythonhosted.org/packages/9b/80/b9051a4a07ad231558fcd8ffc89232711b4e618c15cb7a392a17384bbeef/asgiref-3.7.2-py3-none-any.whl.metadata
  Downloading asgiref-3.7.2-py3-none-any.whl.metadata (9.2 kB)
Collecting sqlparse>=0.3.1 (from django)
  Downloading sqlparse-0.4.4-py3-none-any.whl (41 kB)
----- 41.2/41.2 kB 499.1 kB/s eta 0:00:00
Collecting tzdata (from django)
  Obtaining dependency information for tzdata from https://files.pythonhosted.org/packages/a3/fb/52b62131e21b24ee297e4e95ed41eba29647dad0e0051a92bb6b43c70ff/tzdata-2023.4-py2.py3-none-any.whl.metadata
  Downloading tzdata-2023.4-py2.py3-none-any.whl.metadata (1.4 kB)
  Downloading Django-5.0.1-py3-none-any.whl (8.1 MB)
----- 8.1/8.1 MB 4.7 MB/s eta 0:00:00
  Downloading asgiref-3.7.2-py3-none-any.whl (24 kB)
  Downloading tzdata-2023.4-py2.py3-none-any.whl (346 kB)
----- 40.0/40.0 kB 4.3 MB/s eta 0:00:00
Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.7.2 django-5.0.1 sqlparse-0.4.4 tzdata-2023.4

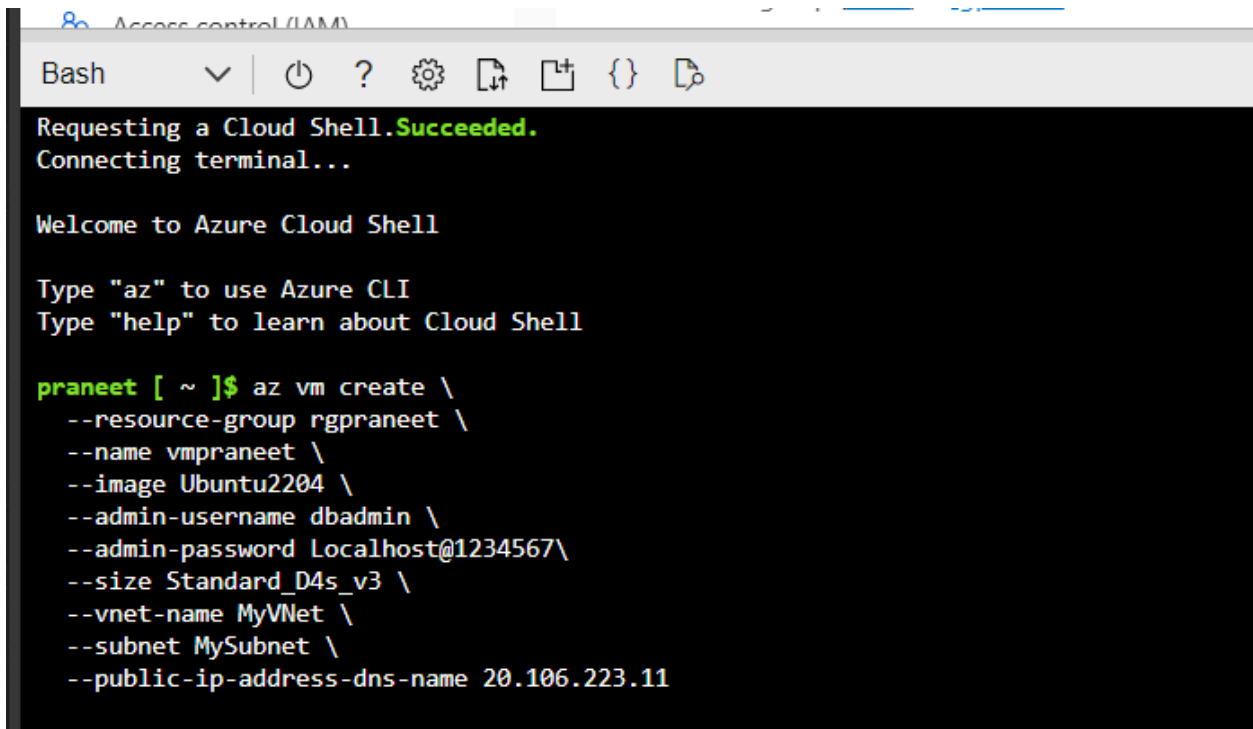
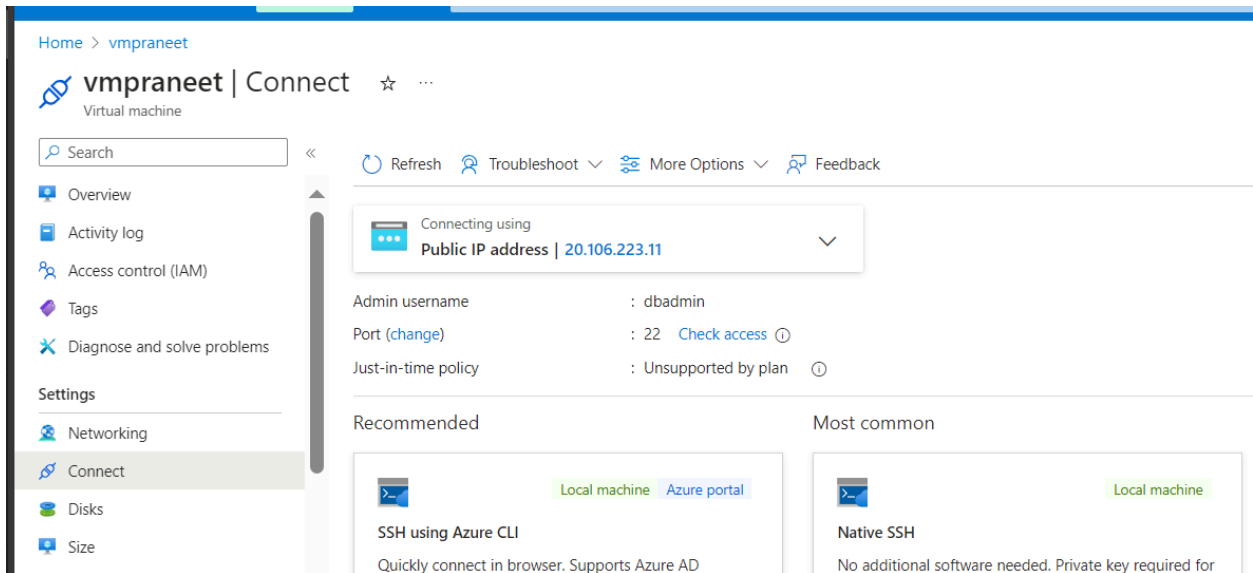
[notice] A new release of pip is available: 23.2.1 -> 24.0
[notice] To update, run: python.exe -m pip install --upgrade pip

(venv) C:\Users\praneet\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Python 3.12>django-admin startproject core .

(venv) C:\Users\praneet\AppData\Roaming\Microsoft\Windows\Start Menu\Programs\Python 3.12>
```

The screenshot shows the Microsoft Azure portal interface. At the top, there's a navigation bar with the 'Microsoft Azure' logo, an 'Upgrade' button, and a search bar. Below the navigation bar, the main content area displays the details of a virtual machine named 'vmpraneet'. The VM is located in the 'East US (Zone 1)' region and is currently in a 'Running' state. The operating system is 'Linux (ubuntu 20.04)'. The size is 'Standard D4s v3 (4 vcpus, 16 GiB memory)'. The public IP address is '20.106.223.11'. The virtual network/subnet is 'vmpraneet-vnet/default'. The DNS name is 'Not configured'. The health state is 'OK'. The subscription ID is '59c106e1-c9e3-4440-961d-8bd04fe978a7'. The availability zone is '1'. The tags are 'Add tags'.

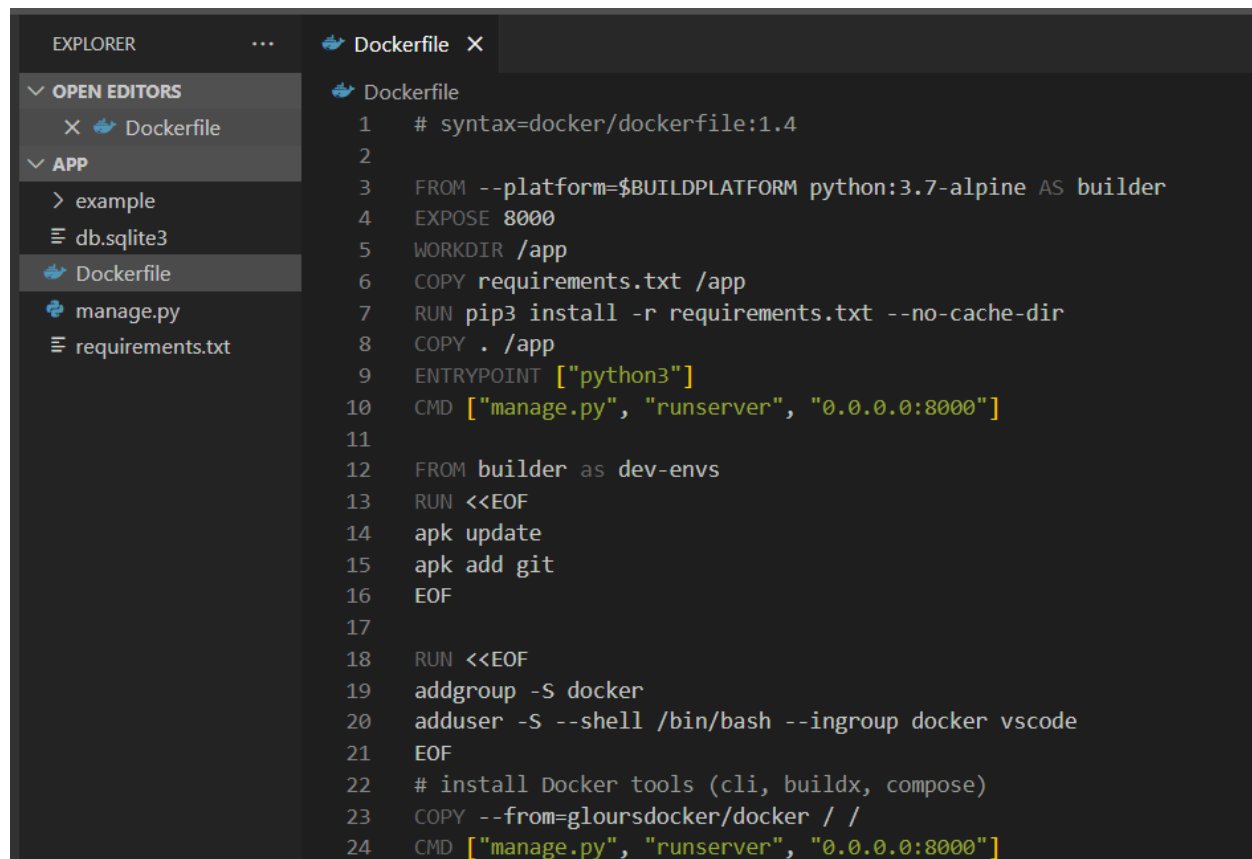
Essentials	
Resource group (move)	rgpraneet
Status	Running
Location	East US (Zone 1)
Subscription (move)	Incedo_AZ_Training
Subscription ID	59c106e1-c9e3-4440-961d-8bd04fe978a7
Availability zone	1
Tags (edit)	Add tags
Operating system	Linux (ubuntu 20.04)
Size	Standard D4s v3 (4 vcpus, 16 GiB memory)
Public IP address	20.106.223.11
Virtual network/subnet	vmpraneet-vnet/default
DNS name	Not configured
Health state	OK



```
az vm create \  
  --resource-group rgpraneet \  
  --name vmpraneet \  
  --image Ubuntu2204 \  
  --admin-username dbadmin \  
  --admin-password Localhost@1234567\  
  --size Standard_D4s_v3 \  
  --vnet-name MyVNet \  
  --subnet MySubnet \  
  --public-ip-address-dns-name 20.106.223.11
```

```
--size Standard_D4s_v3 \  
--vnet-name MyVNet \  
--subnet MySubnet \  
--public-ip-address-dns-name 20.106.223.11
```

DOCKERIZATION AND DEPLOYMENT OF DJANGO PROJECT:



The screenshot shows the Visual Studio Code interface with a Dockerfile open in the editor. The Explorer sidebar on the left shows the project structure: 'APP' folder containing 'example', 'db.sqlite3', 'Dockerfile', 'manage.py', and 'requirements.txt'. The Dockerfile content is as follows:

```
1 # syntax=docker/dockerfile:1.4  
2  
3 FROM --platform=$BUILDPLATFORM python:3.7-alpine AS builder  
4 EXPOSE 8000  
5 WORKDIR /app  
6 COPY requirements.txt /app  
7 RUN pip3 install -r requirements.txt --no-cache-dir  
8 COPY . /app  
9 ENTRYPOINT ["python3"]  
10 CMD ["manage.py", "runserver", "0.0.0.0:8000"]  
11  
12 FROM builder as dev-envs  
13 RUN <<EOF  
14 apk update  
15 apk add git  
16 EOF  
17  
18 RUN <<EOF  
19 addgroup -S docker  
20 adduser -S --shell /bin/bash --ingroup docker vscode  
21 EOF  
22 # install Docker tools (cli, buildx, compose)  
23 COPY --from=gloursdocker/docker / /  
24 CMD ["manage.py", "runserver", "0.0.0.0:8000"]
```

Containers

Images

Volumes

Builds NEW

Dev Environments BETA

Docker Scout

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Container CPU usage ⓘ
3.20% / 1600% (16 CPUs available)

Container memory usage ⓘ
125.16MB / 7.44GB

Show charts

Search

Only show running containers

Delete

	Name	Image	Status	CPU (%)	Port(s)	Last started	Actions
<input checked="" type="checkbox"/>	<div><div></div><div>focused_ba 69a2642ff80e</div></div>	python-django	Exited	0%	8000:8000	2 hours ago	<div></div> <div></div> <div></div>
<input type="checkbox"/>	<div><div></div><div>zen_menins 78b6430b18a</div></div>	python-django:lates	Exited	0%		2 hours ago	<div></div> <div></div> <div></div>
<input type="checkbox"/>	<div><div></div><div>vigilant_sat 279f7cb639ec</div></div>	python-django:lates	Exited	0%		2 hours ago	<div></div> <div></div> <div></div>
<input type="checkbox"/>	<div><div></div><div>goofy_easle ece66d1ba95</div></div>	python-django	Exited	0%	8000:8000	2 hours ago	<div></div> <div></div> <div></div>
<input type="checkbox"/>	<div><div></div><div>objective_e 2614d4dbb2cb</div></div>	python-django:lates	Exited	0%		2 hours ago	<div></div> <div></div> <div></div>

Hello, Praneet!

Welcome to your Task List:

Additional Checkboxes:

- ☐ task 1
- ☐ task 2
- ☐ task 2

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