Reference site for deployment of .Net core application in Linux server.

[Deploy ASP.NET web app to a Linux virtual machine in Azure - DEV Community](https://dev.to/esdanielgomez/deploy-asp-net-web-app-to-a-linux-virtual-machine-in-azure-1lji)

We have deployed Urban Graffiti Website which has entity framework + my SQL + Hang fire

There is no need to install any other packages relevant to entity framework or for My SQL or anything like that. Publish version itself contains all these dlls by default.

Deployment of .net code to Azure Linux Virtual Machine

Software to run the below commands: PuTTY

Here is the link to download PuTTY: https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html

**1) Connect to the Azure VM using SSH**

ssh urbanadmin@public\_ip\_address

**2). Access MySQL on the Azure VM**

mysql -u root -p (need to check if username is root or not)

**3). Create a new database**

CREATE DATABASE graffiti\_new;

To get name of all database

SHOW DATABASES;

**4). Transfer the backup file to the VM using FileZilla or other software**

**5). Restore the backup**

mysql> source /home/urbranadmin/graffiti.sql;

**6). Install the .net code SDK 8.0**

sudo apt-get install -y apt-transport-https ca-certificates curl software-properties-common

***TBS: This is to get updates of .Net packages update***

# Install the .NET SDK

wget https://packages.microsoft.com/config/ubuntu/$(lsb\_release -rs)/packages-microsoft-prod.deb -O packages-microsoft-prod.deb

***TBS: Above command will download relevant .net packages***

sudo dpkg -i packages-microsoft-prod.deb

sudo apt-get update

sudo apt-get install -y dotnet-sdk-8.0

***TBS: Replace with your desired version. Above is last command and has installed the SDK with runtime. So, there is no need to install runtime separately.***

**7). Make apache server for reverse Proxy access**

a2enmod proxy proxy\_http proxy\_html

**8). Change the Program.cs to access the port**

app.Run("http://\*:8081");

***TBS: This is the port what we have defined in inbound of Azure VM and relevant code changes have been applied in code***

**9). Publish the code in local**

**10). Transfer publish file to server using FileZilla or other software**

**11). Create Configuration File**

sudo nano /etc/apache2/conf-enabled/DotNetApp.conf

**12). Add below content in the above config file**

<VirtualHost \*:8081>

ProxyPreserveHost On

ProxyPass / http://127.0.0.1:8081/

ProxyPassReverse / http://127.0.0.1:8081/

ErrorLog /var/log/apache2/UrbanFront-error.log

CustomLog /var/log/apache2/UrbanFront-access.log common

</VirtualHost>

**13). Press Ctrl + X and then Y and then Enter to save the file.**

**14). Copy the Publish file to the working directory**

cd /var/

sudo mkdir DotNetApp

cd /home/urbranadmin/NetWebAPI

***– TBS: This is the folder in which we have transferred the published code***

sudo cp -R \* /var/DotNetApp/

**15). Create service to run the application**

sudo nano /etc/systemd/system/kestrel-DotNetApp.service

**16). Add the below content to above service file**

[Unit]

Description=Aspnet 5 Web App running on Ubuntu

[Service]

WorkingDirectory=/var/DotNetApp

ExecStart=/usr/bin/dotnet /var/DotNetApp/UserDashboard.dll

Restart=always

RestartSec=10

SyslogIdentifier=dotnet-demo

User=www-data

Environment=ASPNETCORE\_ENVIRONMENT=Production

[Install]

WantedBy=multi-user.target

## Make sure to change the dll name accroding to published code

**17). Enable and start the service**

sudo systemctl enable kestrel-DotNetApp.service

sudo systemctl start kestrel-DotNetApp.service

**18). Restart the Apache**

systemctl restart apache2

sudo service apache2 restart

**Additional steps if service is not working**

**1). Check the inbound rule in Azure portal if denied port in point 12 is allowed or not. If not then add the inbound rule to allow desired port.**

**2). Check the firewall settings (iptables or ufw) on your Ubuntu server to ensure they are not blocking traffic on port defined in port 12.**

sudo ufw status

**3). If your given port is not listed then you need to add port.**

sudo ufw allow 8081/tcp

**4). Verify the added port is listed or not**

sudo ufw status numbered

**5). After adding the port, repeat the point 18 to restart the Apache.**