.NET CORE AZURE VM DEPLOY GUIDE

PETRO KOLOSOV

Abstract. Simple and easy way to deploy your .NET Core web application to the Azure Ubuntu-based virtual machine.

Contents

1. Virtual machine creation

Firstly, it is necessary to create a virtual machine (unexpectedly) where deployment to be hosted on. In this guide is considered free virtual machine of type `Standard B1ms (1 vcpu, 2 GiB memory)` with Ubuntu 20.04 operating system. Definitely it won't be considered step by step creation in this document, however required VM parameter are as follows:

- Size: `Standard B1ms (1 vcpu, 2 GiB memory)`
- OS: `Ubuntu Server 20.04 LTS - Gen2`
- Availability options: `No infrastructure required`
- Authentication type: `SSH public key`
- SSH public key source: `Use existing public key (create it before you created VM)`

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- Public inbound ports: `HTTP(80), HTTPS(443), SSH(22)`
- OS disk type: `Standard SSD`
- Encryption type: `Default`
- Public IP: `Basic SKU, Static (be sure to create static IP)`
- Select inbound ports: `HTTP(80), HTTPS(443), SSH(22)`
- Boot diagnostics: `Disabled`

Chosen parameters of the virtual machine are collected in order to minimize vm's cost. If you are not sure, refer to the screenshots via the link.

2. Connect to VM via SSH

It is assumed that programmer uses WSL 2 under Windows 10 in order to work with VM via the SSH. By default, SSH keys are stored under the path `c/Users/username/.ssh`. Assume that RSA key-pair is stored there and have the names `id_rsa` and `id_rsa.pub` for private and public keys respectively. In order to interact the VM via SSH it is necessary to copy RSA keypair to the WSL `username/.ssh` folder, we use the commands under WSL

- `cp /mnt/c/Users/pkolosov/.ssh/id_rsa /.ssh/`
- `cp /mnt/c/Users/pkolosov/.ssh/id_rsa.pub /.ssh/`

Then connection is available now using the command

- `ssh -i /.ssh/id_rsa razumovsky_r@MachineStaticIP`

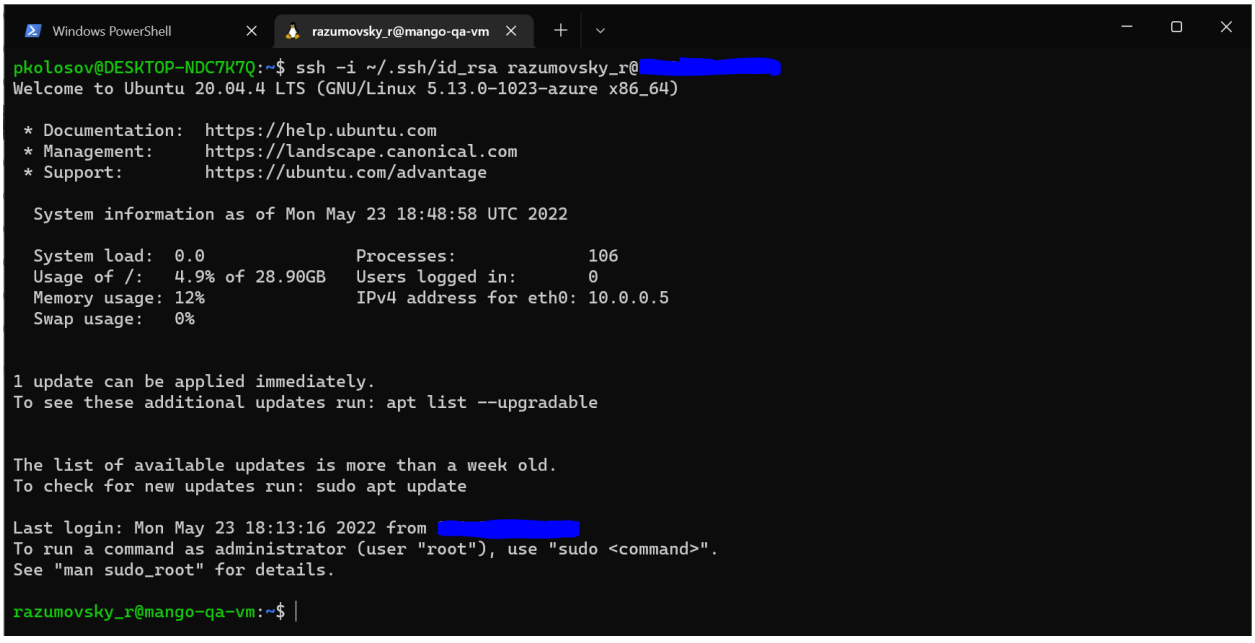

Figure 1. SSH connected successfully.

3. Install .NET SDK to Ubuntu 20.04

4. Copy build files to the VM via SSH

5. Configure Ubuntu service

6. Install and configure Nginx server

7. Configure domain name and SSL

8. Deploy frontend project

9. Conclusions

Conclusions of your manuscript.

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Email address: kolosovp94@gmail.com

URL: https://razumovsky.me/