

DEPARTMENT OF
INFORMATION TECHNOLOGY
AND OTHER MAGICS
(DRAFT)

MohammadReza Tayyebi

Feb. 2023

This endless joy was not possible before hardware manufacturers, software developers, AI scientists, and FOSS activists.

To my beloved parents.

Contents

I	Operations	1
1	Virtualization	3
1.1	Docker	3
1.1.1	Installation	3
2	Environments Setup	5
2.1	First hands on Linux	5
2.2	Microsoft Visual Studio Code	5
2.2.1	Installation	5
2.3	Microsoft .NET Core C#	5
II	Decision Making	7
III	Human Capitals	9

Part I

Operations

Chapter 1

Virtualization

1.1 Docker

1.1.1 Installation

Prerequisites

```
sudo apt update
```

```
sudo apt install \  
ca-certificates \  
curl \  
gnupg \  
lsb-release
```

Add official Docker's GPG key

```
echo \  
"deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] http://  
$(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

Install Docker engine

```
sudo apt update --allow-insecure-repositories  
sudo apt --allow-unauthenticated -- install docker-ce docker-ce-cli containerd.io docker-compose
```

Receiving a GPG error when running ‘apt update’? Your default umask may not be set correctly, causing the public key file for the repo to not be detected. Run the following command and then try to update your repo again: ‘sudo chmod a+r /etc/apt/keyrings/docker.gpg’.

Verify installation

```
sudo docker run hello-world
```

Docker Security**Run 'docker' without 'sudo'**

```
sudo groupadd docker
sudo usermod -a -G docker $USER
groups
grep docker /etc/group
newgrp docker
```

Chapter 2

Environments Setup

We use Linux (Debian-Ubuntu) as our stack

2.1 First hands on Linux

```
sudo apt update
sudo apt upgrade
```

2.2 Microsoft Visual Studio Code

2.2.1 Installation

Offline installation

Download installer To install Microsoft Visual Studio Code (AKA vscode) please navigate to it's [download page](#).

Install .deb file

```
sudo dpkg -i package\_name.deb
```

2.3 Microsoft .NET Core C#

```
sudo apt install -y dotnet-sdk-7.0
```


Part II
Decision Making

Part III
Human Capitals

