

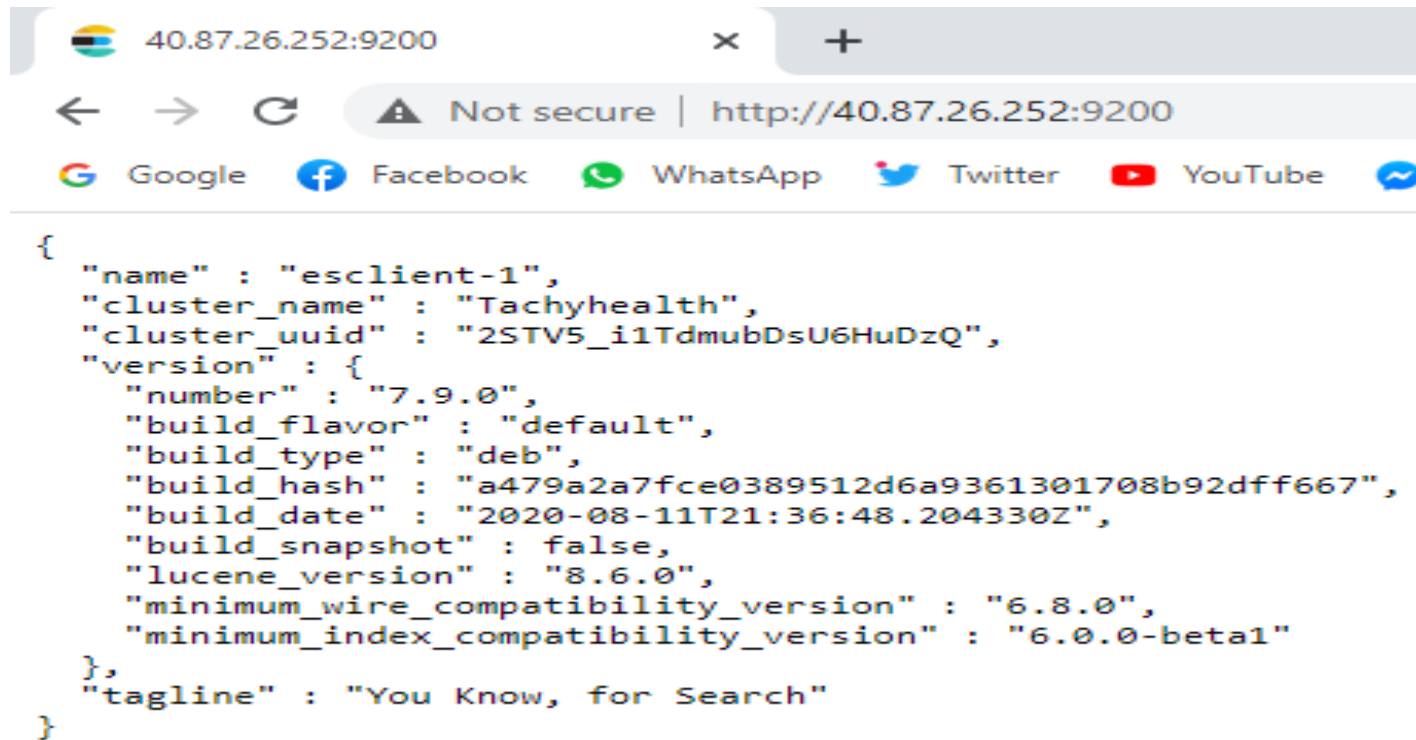
Docker Deployment Walkthrough

High Level Steps

1. Elasticsearch server
2. source control for the repo
3. Clone
4. API deployment
5. Test
6. Pull
7. Image
8. Building Containre

1- Use live Elasticsearch server instead of local server

```
self.ES = Elasticsearch(['40.87.26.252:9200'], http_auth=("elastic", "Tachy_health@12345"),)
```



40.87.26.252:9200

Not secure | http://40.87.26.252:9200

Google Facebook WhatsApp Twitter YouTube



```
{
  "name" : "esclient-1",
  "cluster_name" : "Tachyhealth",
  "cluster_uuid" : "2STV5_i1TdmubDsU6HuDzQ",
  "version" : {
    "number" : "7.9.0",
    "build_flavor" : "default",
    "build_type" : "deb",
    "build_hash" : "a479a2a7fce0389512d6a9361301708b92dff667",
    "build_date" : "2020-08-11T21:36:48.204330Z",
    "build_snapshot" : false,
    "lucene_version" : "8.6.0",
    "minimum_wire_compatibility_version" : "6.8.0",
    "minimum_index_compatibility_version" : "6.0.0-beta1"
  },
  "tagline" : "You Know, for Search"
}
```






2- Use source control for the repo


<https://gitlab.com/Shaltoot/aicode>



Ahmed Shaltoot > AiCode > Details






**AiCode** 
Project ID: 21912452


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2 Commits 1 Branch 0 Tags 7.4 MB Files 7.4 MB Storage

master aicode / + History Find file Web IDE  Clone

 **initial commit**
Ahmed Shaltoot authored 1 day ago 2834ce7a 

 README  Add LICENSE  Add CHANGELOG  Add CONTRIBUTING  Add Kubernetes cluster

 Set up CI/CD

Name	Last commit	Last update
 __pycache__	initial commit	1 day ago
 data_access	initial commit	1 day ago
 flair	initial commit	1 day ago
 templates	initial commit	1 day ago

Send your email for Ahmed Shaltoot to get the credentials

3- Clone the last version form the project from the repo first

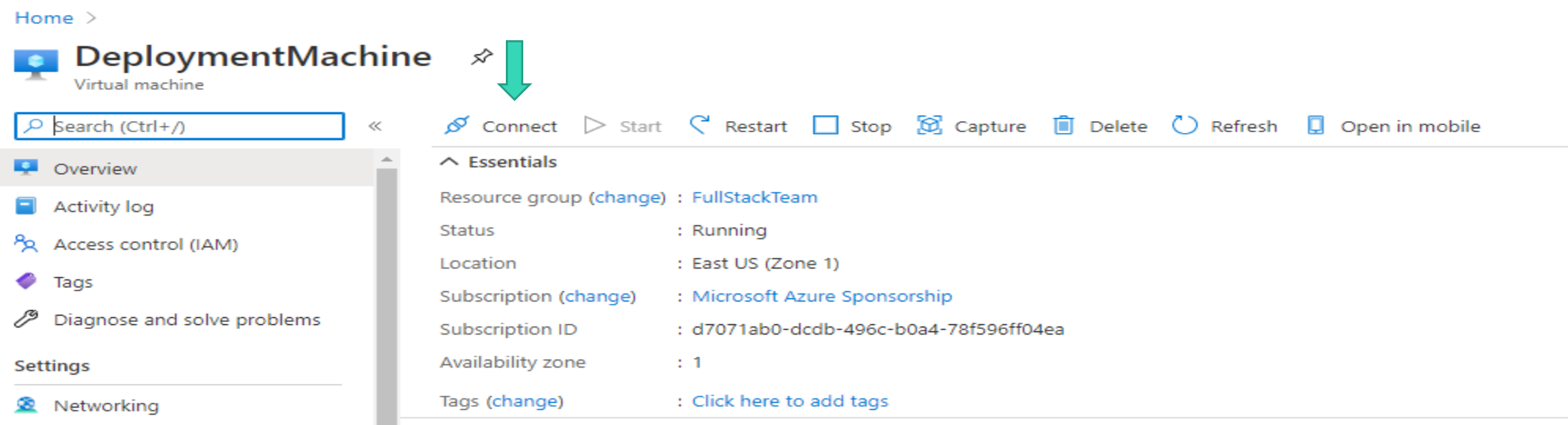
```
and the repository exists.  
PS C:\Users\Fast_\Desktop\New folder (3)> git clone https://gitlab.com/Shaltoot/aicode.git  
Cloning into 'aicode'...  
remote: Enumerating objects: 257, done.  
remote: Counting objects: 100% (257/257), done.  
remote: Compressing objects: 100% (235/235), done.  
remote: Total 257 (delta 16), reused 254 (delta 16), pack-reused 0  
Receiving objects: 100% (257/257), 7.23 MiB | 3.77 MiB/s, done.  
Resolving deltas: 100% (16/16), done.  
PS C:\Users\Fast_\Desktop\New folder (3)>
```

4- Maintain the state of the API process dev_process_api
Because its used in another application so unless the edit is related to it don't touch it

```
@app.route('/dev_process_api', methods=["POST"])
def dev_process_api():
    if request.method == 'POST':
        ES = ES_.get()
        choice = request.form['taskoption']
        rawtext = request.form['rawtext']
        (Diseases_, Chemicals_, Genes_, Species_,
         CellLines_, DF) = AICode_.NER_Extraction(rawtext)
        if choice == 'Diseases':
            results = {'Diseases': Diseases_}
            num_of_results = len(Diseases_)
        elif choice == 'Medications':
            if ES != None:
                Commercial_Names_ = Commercial_Names(ES)
                Commercial_Names_ = Commercial_Names(ES)
                CNs = Commercial_Names_.Pipeline(rawtext)
            results = {'Medications': Chemicals_ + CNs}
```

5- Please Test the edits before pushing to the Repo or continue with the deployment

6- The Deployment environment is ready and configured on VM called (Deployment Machine) (get credentials form azure portal) use RDP to connect to it



Home > **DeploymentMachine** Virtual machine

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Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems

Settings

- Networking

Essentials

Resource group (change)	: FullStackTeam
Status	: Running
Location	: East US (Zone 1)
Subscription (change)	: Microsoft Azure Sponsorship
Subscription ID	: d7071ab0-dcdb-496c-b0a4-78f596ff04ea
Availability zone	: 1
Tags (change)	: Click here to add tags

7- Run get pull in the repo folder called aicode

AiCode

Share View

> AiCode

Name	Date modified	Type	Size
__pycache__	10/20/2020 10:20 ...	File folder	

```
PS C:\Users\TachyHealth\Desktop\AiCode> git pull
warning: redirecting to https://gitlab.com/Shaltoot/aicode.git/
Already up to date.
PS C:\Users\TachyHealth\Desktop\AiCode>
```


8- Build the image by typing “docker build -t aicode .” note that the aicode in the command is the image name if taken just change the name and use it in the next step

```
PS C:\Users\TachyHealth\Desktop\AiCode> docker build -t aicode .
[+] Building 564.0s (13/13) FINISHED
=> [internal] load .dockerignore 0.1s
=> => transferring context: 28 0.0s
=> [internal] load build definition from Dockerfile 0.1s
=> => transferring dockerfile: 462B 0.0s
=> [internal] load metadata for docker.io/library/python:3.7 1.4s
=> [internal] load build context 2.9s
=> => transferring context: 36.60MB 2.8s
=> [1/8] FROM docker.io/library/python:3.7@sha256:6abb0f8eb55109e84f93bc0e0057cb8bacb474ef76220ef18d9adf7615dcfa 2.1s
=> => resolve docker.io/library/python:3.7@sha256:6abb0f8eb55109e84f93bc0e0057cb8bacb474ef76220ef18d9adf7615dcfa 0.0s
=> => sha256:f9357b036aaab5142a34942f6f64033d50823f52ab8414d6a6c4371ea0c7f862 2.22kB / 2.22kB 0.0s
=> => sha256:6abb0f8eb55109e84f93bc0e0057cb8bacb474ef76220ef18d9adf7615dcfa2c 2.36kB / 2.36kB 0.0s
=> => sha256:b0dee8d708b9f489deb2b496b6c585dd67399089c2453ae53555319004cd2974 9.06kB / 9.06kB 0.0s
=> => sha256:dba53c2ed625e9129aa921f3a21923683909446f9afd4019f669833c1997942f 2.12MB / 2.12MB 0.8s
=> => extracting sha256:dba53c2ed625e9129aa921f3a21923683909446f9afd4019f669833c1997942f 0.7s
=> [2/8] RUN apt-get update && apt-get install -y 8.3s
=> [3/8] RUN apt-get update -y && apt-get install -y python3-pip python-dev 46.0s
=> [4/8] RUN apt-get install python3-dev 1.9s
=> [5/8] WORKDIR /app 0.1s
=> [6/8] COPY requirements.txt ./ 0.1s
=> [7/8] RUN pip3 install -r requirements.txt 239.3s
=> [8/8] COPY . /app 150.6s
=> exporting to image 113.7s
=> => exporting layers 113.6s
=> => writing image sha256:a34672e95956dc086e805e14fbbc43242f58bae1224c832fcd4f97e446ebcd3f 0.0s
=> => naming to docker.io/library/aicode 0.0s
```

9- run container by typing “ docker run -d -p 80:80 aicode ”

```
PS C:\Users\TachyHealth\Desktop\AiCode> docker run -d -p 80:80 aicode  
7a5e6f8ab4fdc9096898b2ea28c5227d3e8b561343726acd69fa0b2e8b508244  
PS C:\Users\TachyHealth\Desktop\AiCode>
```

10- if you get error of the port 80 I used just open docker UI and delete the running container then run the same command again

Just that container will be live after creating the first index on <http://aicodeapi.eastus.cloudapp.azure.com>

Have a question??

Reach out to Ahmad Shaltoot @ itshaltoot96@gmail.com

Thank You

