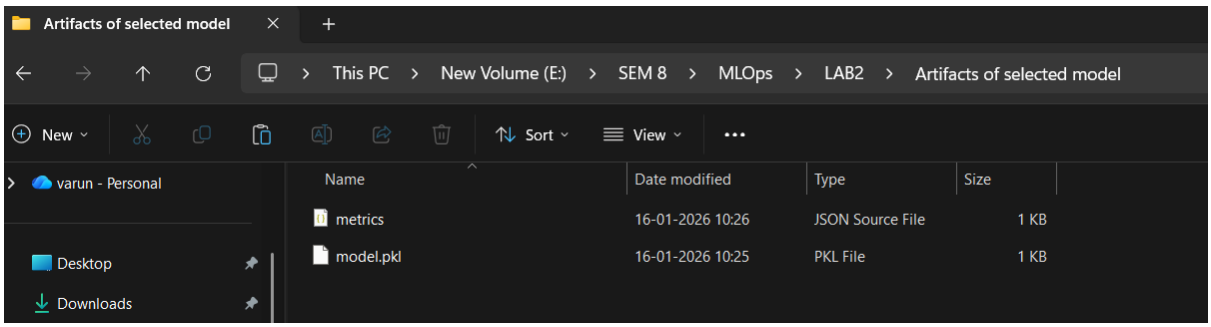
VARUN MOHAN 2022BCS0034

LAB-3

Artifacts

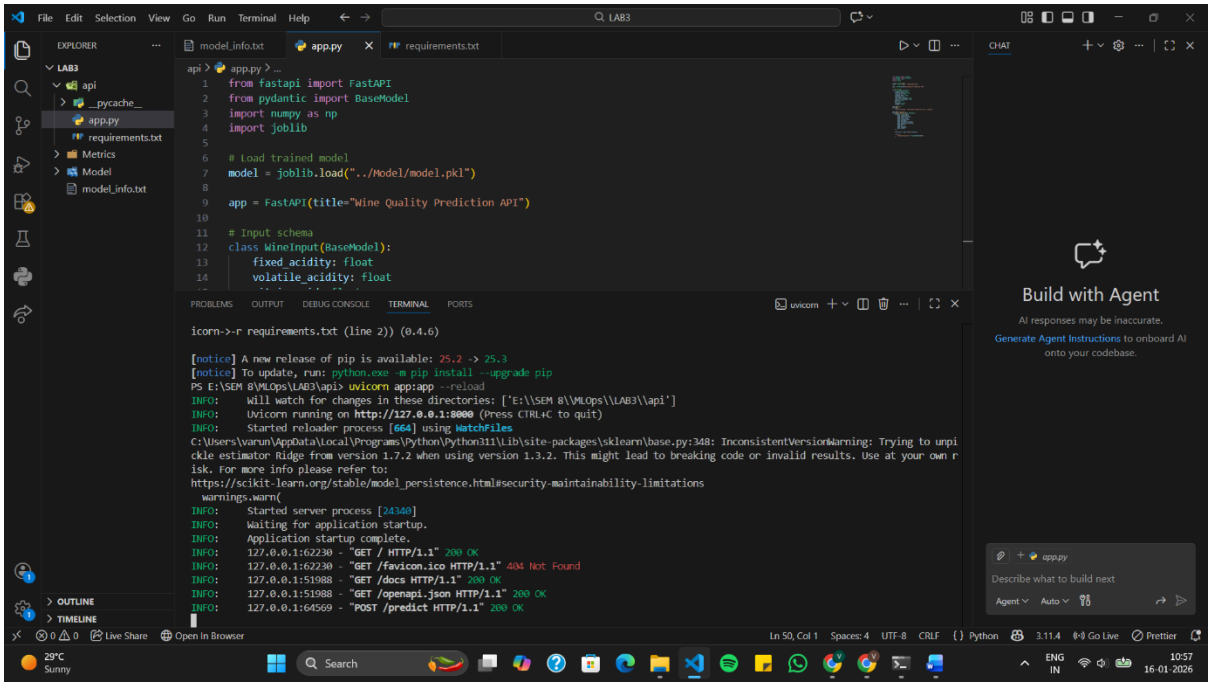


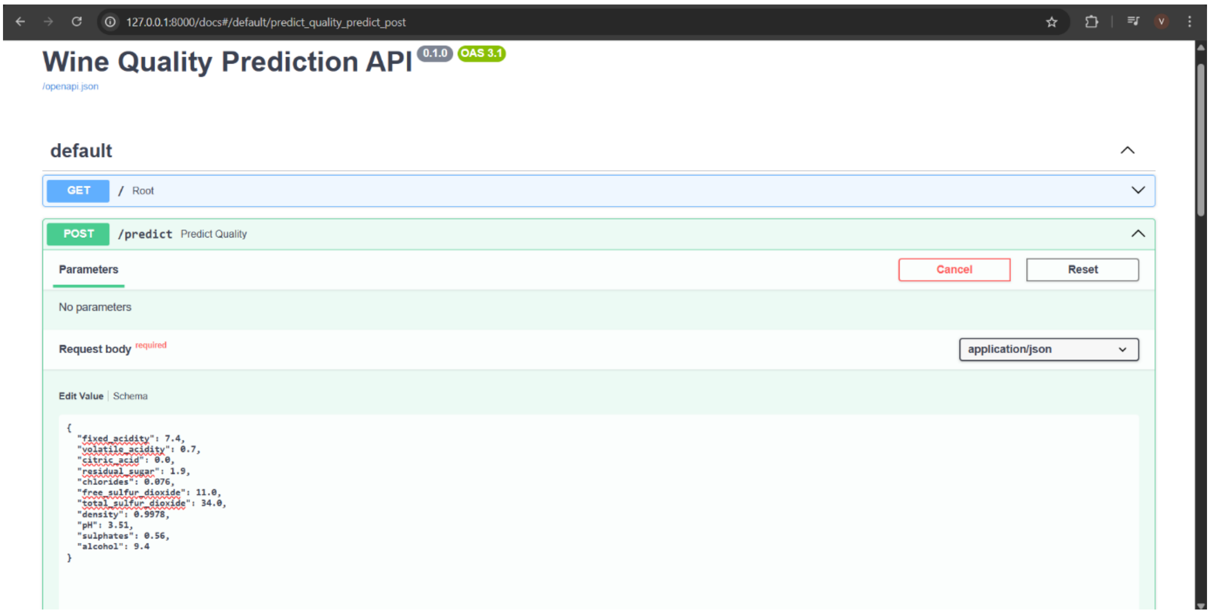
Commit Hash: d98bb4c

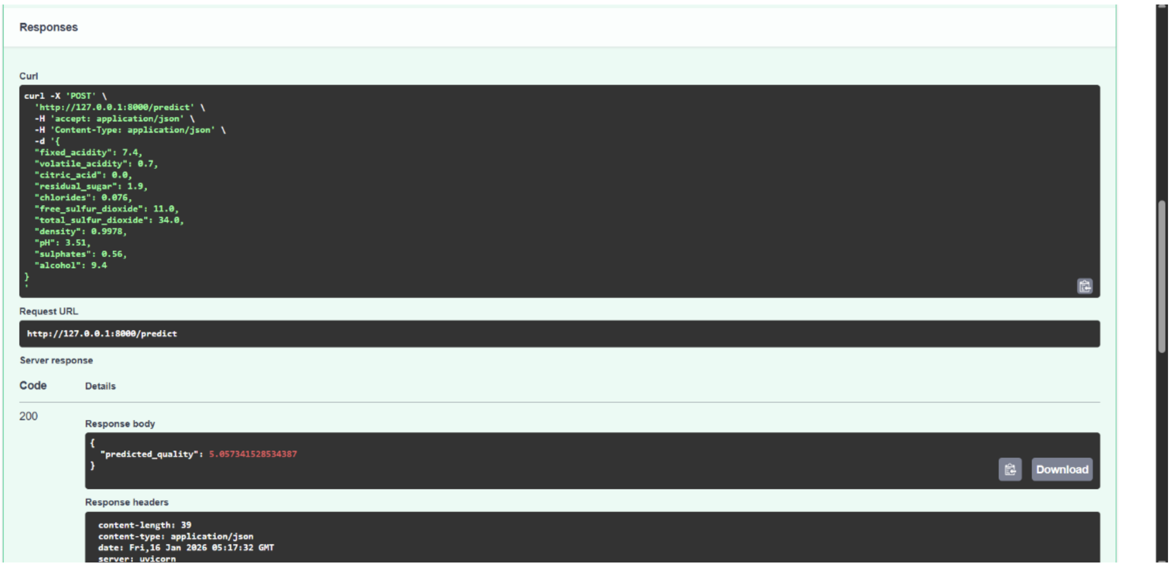
Workflow Run ID: 20843104394

MSE: 0.39003658082449677

R2: 0.4031628405022719








```
PS E:\SEM 8\MLOps\LAB3> docker build -t varunmohanbcs34-wine-quality:v1 .
[+] Building 2.7s (12/12) FINISHED                                        docker:desktop-linux
=> [internal] load build definition from Dockerfile                                       0.0s
=> => transferring dockerfile: 308B                                                       0.0s
=> [internal] load metadata for docker.io/library/python:3.11-slim                        2.2s
=> [auth] library/python:pull token for registry-1.docker.io                              0.0s
=> [internal] load .dockerignore                                                          0.0s
=> => transferring context: 2B                                                            0.0s
=> [1/6] FROM docker.io/library/python:3.11-slim@sha256:c24e9effa2821a6885165d930d939fec2af0dcf819276138f11dd45e200bd032  0.0s
=> => resolve docker.io/library/python:3.11-slim@sha256:c24e9effa2821a6885165d930d939fec2af0dcf819276138f11dd45e200bd032  0.0s
=> [internal] load build context                                                          0.1s
=> => transferring context: 1.31kB                                                        0.1s
=> CACHED [2/6] WORKDIR /app                                                              0.0s
=> CACHED [3/6] COPY api/requirements.txt .                                               0.0s
=> CACHED [4/6] RUN pip install --no-cache-dir -r requirements.txt                        0.0s
=> [5/6] COPY api/app.py .                                                                0.0s
=> [6/6] COPY Model/model.pkl ./Model/model.pkl                                           0.0s
=> exporting to image                                                                     0.2s
=> => exporting layers                                                                    0.1s
=> => exporting manifest sha256:e79a1b81f73a772108806bc543b798a54b5694696948bd1e773d093ccd8b3f15  0.0s
=> => exporting config sha256:1d233ad83827c2d41300b2fb3390d171ff431d1a4242415fb2afade0299da91b  0.0s
=> => exporting attestation manifest sha256:af0cd669a25093cc6e1977f90bd232e30e5ff5435b96192c7310743e42085d54  0.0s
=> => exporting manifest list sha256:916d6edbec7180e046fa887c9fc0177039fb3327d2577eda6b62257c0717eb15  0.0s
=> => naming to docker.io/library/varunmohanbcs34-wine-quality:v1                         0.0s
=> => unpacking to docker.io/library/varunmohanbcs34-wine-quality:v1                      0.0s
```

MLOPS

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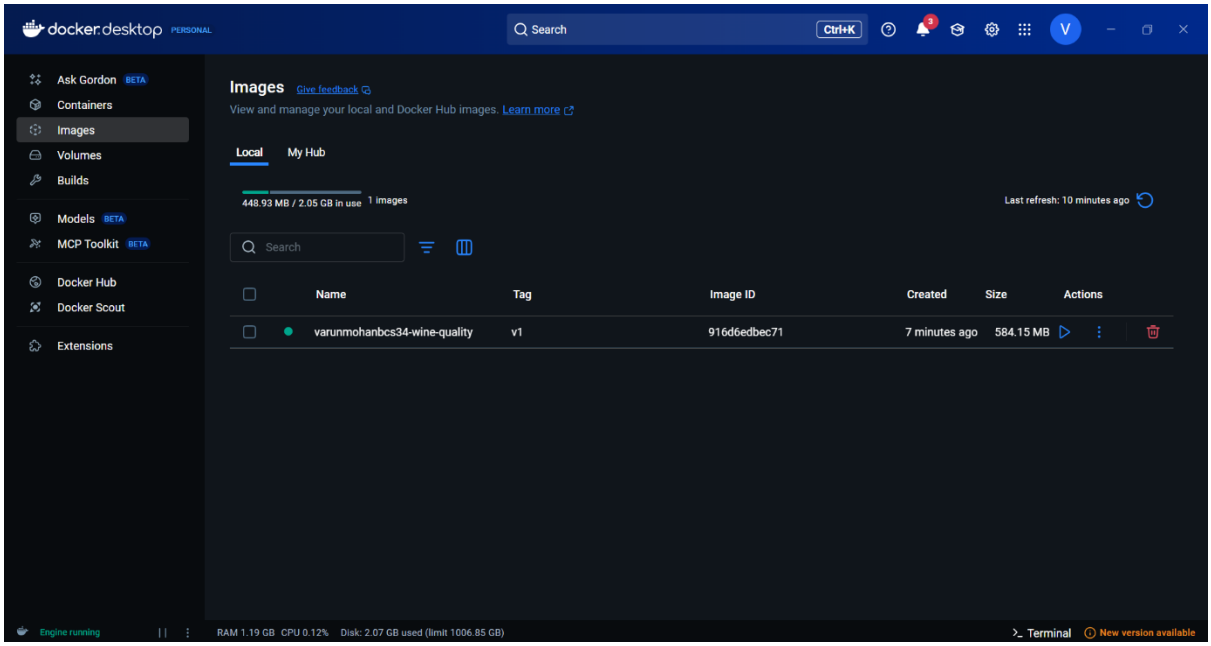


```
PS E:\SEM 8\MLOps\LAB3> docker run -p 8000:8000 varunmohanbcs34-wine-quality:v1
/usr/local/lib/python3.11/site-packages/sklearn/base.py:463: InconsistentVersionWarning: Trying to unpickle estimator Ridge from version
 1.7.2 when using version 1.8.0. This might lead to breaking code or invalid results. Use at your own risk. For more info please refer t
o:
https://scikit-learn.org/stable/model_persistence.html#security-maintainability-limitations
  warnings.warn(
INFO:     Started server process [1]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://0.0.0.0:8000 (Press CTRL+C to quit)
INFO:     172.17.0.1:56990 - "GET /docs HTTP/1.1" 200 OK
INFO:     172.17.0.1:56990 - "GET /openapi.json HTTP/1.1" 200 OK
INFO:     172.17.0.1:41968 - "POST /predict HTTP/1.1" 200 OK
INFO:     172.17.0.1:41972 - "POST /predict HTTP/1.1" 200 OK
```

```
PS E:\SEM 8\MLOps\LAB3> docker login
Authenticating with existing credentials... [Username: varuna10]

i Info → To login with a different account, run 'docker logout' followed by 'docker login'


Login Succeeded
PS E:\SEM 8\MLOps\LAB3> docker tag varunmohanbcs34-wine-quality:v1 varuna10/varunmohanbcs34-wine-quality:v1
PS E:\SEM 8\MLOps\LAB3> docker images
REPOSITORY                              TAG       IMAGE ID       CREATED          SIZE
varunmohanbcs34-wine-quality            v1        916d6edbec71   28 minutes ago   584MB
varuna10/varunmohanbcs34-wine-quality   v1        916d6edbec71   28 minutes ago   584MB
PS E:\SEM 8\MLOps\LAB3> docker push varuna10/varunmohanbcs34-wine-quality:v1
The push refers to repository [docker.io/varuna10/varunmohanbcs34-wine-quality]
8cbe6d68ae3f: Pushed
5e4d14988a65: Pushed
5b09819094bb: Pushed
729ea1b02826: Pushed
0b2bf04f68e9: Pushed
e94fa7b84beb: Pushed
119d43eec815: Pushed
3180a9a085e6: Pushed
3c8a6e4baa67: Pushed
3e731abb5c1d: Pushed
v1: digest: sha256:916d6edbec7180e046fa887c9fc0177039fb3327d2577eda6b62257c0717eb15 size: 856
PS E:\SEM 8\MLOps\LAB3>
```

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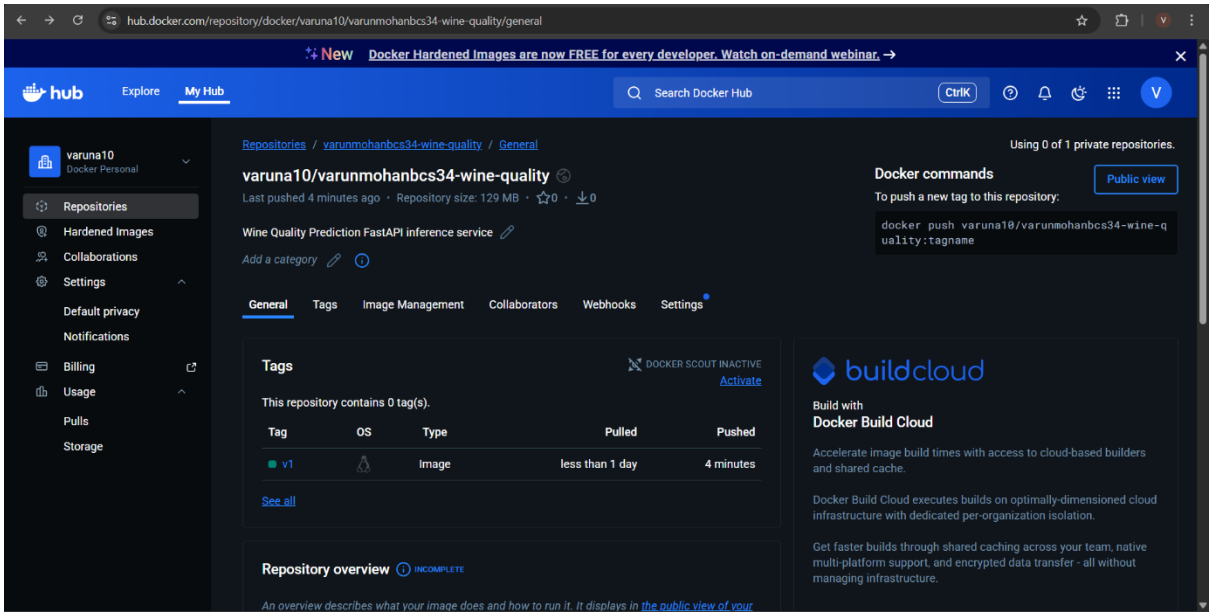


```
PS E:\SEM 8\MLOps\LAB3> docker ps -aq
3a158ff315b9
572428f053e1
PS E:\SEM 8\MLOps\LAB3> docker rm -f $(docker ps -aq)
3a158ff315b9
572428f053e1
PS E:\SEM 8\MLOps\LAB3> docker rm -f 3a158ff315b9 572428f053e1
Error response from daemon: No such container: 3a158ff315b9
Error response from daemon: No such container: 572428f053e1
PS E:\SEM 8\MLOps\LAB3> docker ps -aq
PS E:\SEM 8\MLOps\LAB3> docker images
REPOSITORY                                TAG       IMAGE ID       CREATED          SIZE
varunmohanbcs34-wine-quality              v1        916d6edbec71   39 minutes ago   584MB
varuna10/varunmohanbcs34-wine-quality     v1        916d6edbec71   39 minutes ago   584MB
PS E:\SEM 8\MLOps\LAB3> docker rmi varunmohanbcs34-wine-quality:v1
Untagged: varunmohanbcs34-wine-quality:v1
PS E:\SEM 8\MLOps\LAB3> docker rmi varuna10/varunmohanbcs34-wine-quality:v1
Untagged: varuna10/varunmohanbcs34-wine-quality:v1
Deleted: sha256:916d6edbec7180e046fa887c9fc0177039fb3327d2577eda6b62257c0717eb15
PS E:\SEM 8\MLOps\LAB3> docker images
REPOSITORY   TAG       IMAGE ID   CREATED   SIZE
```

```
PS E:\SEM 8\MLOps\LAB3> docker pull varuna10/varunmohanbcs34-wine-quality:v1
v1: Pulling from varuna10/varunmohanbcs34-wine-quality
8cbe6d68ae3f: Pull complete
5e4d14988a65: Pull complete
3c8a6e4baa67: Pull complete
729ea1b02826: Pull complete
e94fa7b84beb: Pull complete
Digest: sha256:916d6edbec7180e046fa887c9fc0177039fb3327d2577eda6b62257c0717eb15
Status: Downloaded newer image for varuna10/varunmohanbcs34-wine-quality:v1
docker.io/varuna10/varunmohanbcs34-wine-quality:v1
PS E:\SEM 8\MLOps\LAB3> docker run -p 8000:8000 varuna10/varunmohanbcs34-wine-quality:v1
/usr/local/lib/python3.11/site-packages/sklearn/base.py:463: InconsistentVersionWarning: Trying to unpickle estimator Ridge from version 1.7
.2 when using version 1.8.0. This might lead to breaking code or invalid results. Use at your own risk. For more info please refer to:
https://scikit-learn.org/stable/model_persistence.html#security-maintainability-limitations
  warnings.warn(
INFO:     Started server process [1]
INFO:     Waiting for application startup.
INFO:     Application startup complete.
INFO:     Uvicorn running on http://0.0.0.0:8000 (Press CTRL+C to quit)
INFO:     172.17.0.1:50882 - "GET /docs HTTP/1.1" 200 OK
INFO:     172.17.0.1:50882 - "GET /openapi.json HTTP/1.1" 200 OK
```

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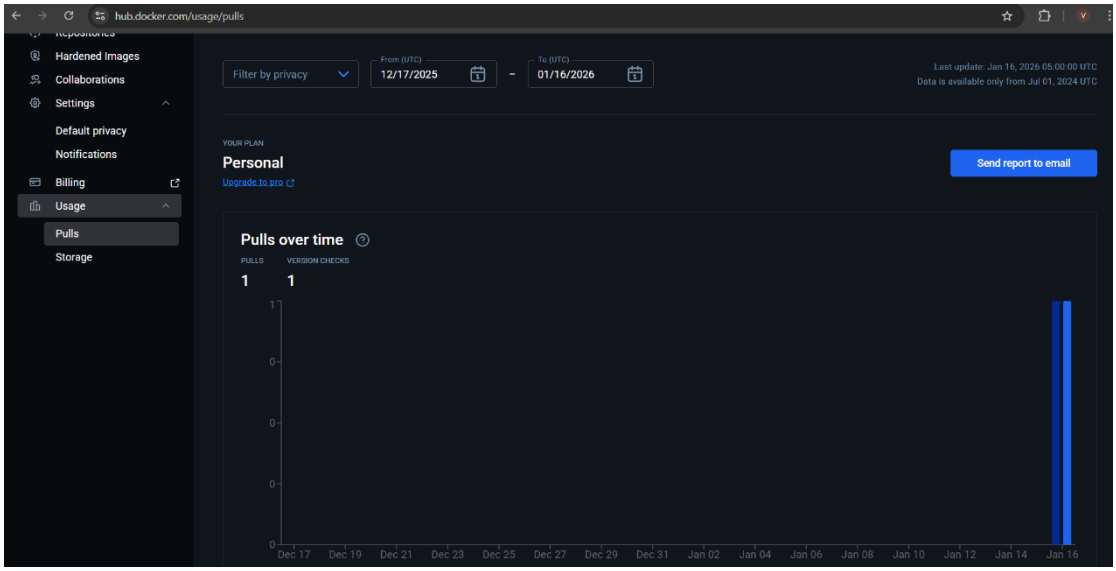

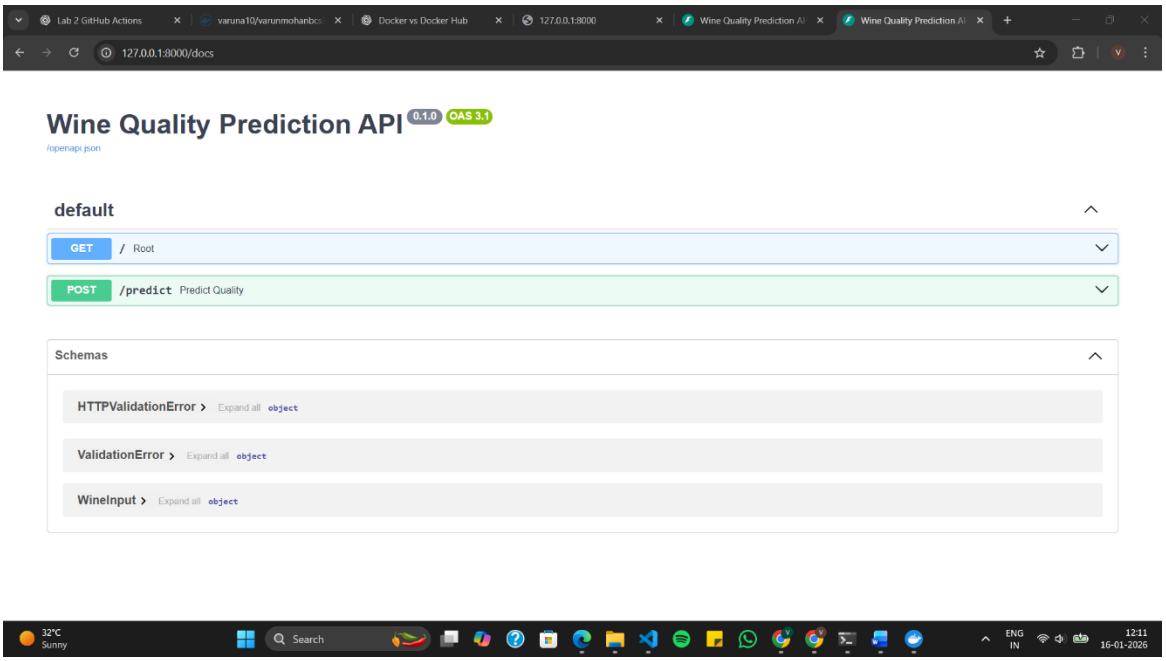

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Wine Quality Prediction API

0.1.0 OAS 3.1

/openapi.json

default

GET / Root

POST /predict Predict Quality

Parameters Cancel Reset

No parameters

Request body required application/json

Edit Value | Schema

```
{
  "fixed_acidity": 7.4,
  "volatile_acidity": 0.7,
  "citric_acid": 0.0,
  "residual_sugar": 1.9,
  "chlorides": 0.076,
  "free_sulfur_dioxide": 11,
  "total_sulfur_dioxide": 34,
  "density": 0.9978,
  "pH": 3.51,
  "sulphates": 0.56,
  "alcohol": 9.4
}
```

Responses

Curl

```
curl -X 'POST' \
  'http://127.0.0.1:8000/predict' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "fixed_acidity": 7.4,
  "volatile_acidity": 0.7,
  "citric_acid": 0.0,
  "residual_sugar": 1.9,
  "chlorides": 0.076,
  "free_sulfur_dioxide": 11,
  "total_sulfur_dioxide": 34,
  "density": 0.9978,
  "pH": 3.51,
  "sulphates": 0.56,
  "alcohol": 9.4
}'
```

Request URL

```
http://127.0.0.1:8000/predict
```

Server response

Code	Details
200	Response body

```
{
  "predicted_quality": 5.057341528534387
}
```

Download

Response headers

```
content-length: 39
content-type: application/json
date: Fri,16 Jan 2026 06:46:01 GMT
server: uvicorn
```

Responses

Code	Description	Links
200	Successful Response	*No links*

Media type: application/json

Controls Accept header.

Example Value | Schema

```
"string"
```

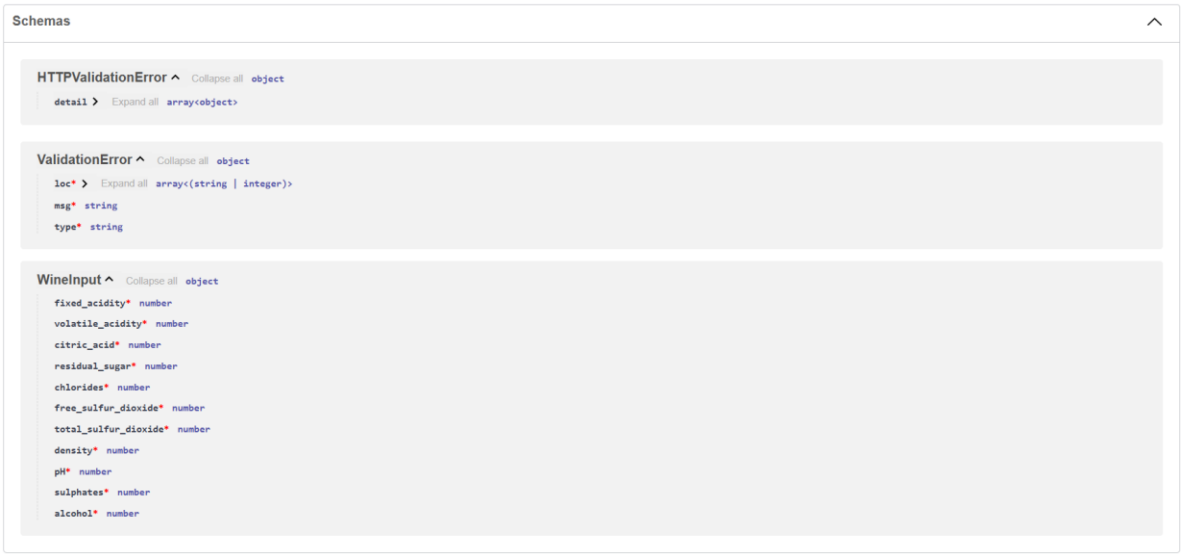
422	Validation Error	*No links*

Media type: application/json

Example Value | Schema

```
{
  "detail": [
    {
      "loc": [
        "string",
        0
      ],
      "msg": "string",
      "type": "string"
    }
  ]
}
```

Schemas

MLOPS

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