

# **CS5830: Big Data Laboratory**

## **Assignment 6**

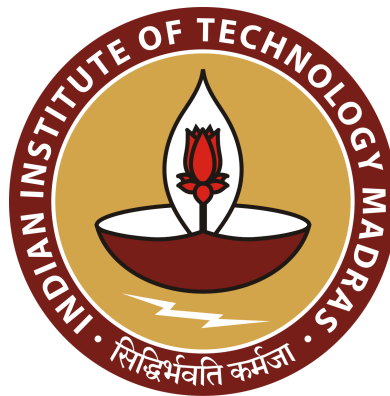
### **Report**

**Course Instructor:** Balaraman Ravindran

**Submitted By:** Vishal V

**Roll Number:** ME20B204

**Date:** 24/04/2024



Indian Institute of Technology Madras

Chennai 600036, India

## Task 1:

Run `python task1.py mnist_model.h5` in terminal

Checking on a few samples from the test folder of MNIST downloads.

file \* required  
string(\$binary) Choose file 3.jpg

Execute Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@3.jpg;type=image/jpeg'
```

Request URL

http://localhost:8000/predict/

Server response

Code	Details
200	<p>Response body</p> <pre>{   "digit": "3" }</pre> <p>Response headers</p> <pre>content-length: 13 content-type: application/json date: Wed, 24 Apr 2024 10:07:24 GMT server: uvicorn</pre>

Download

file • required  
string(\$binary)  5.jpg

Execute

Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@5.jpg;type=image/jpeg'
```

Request URL

```
http://localhost:8000/predict/
```

Server response

Code	Details
------	---------

200	
-----	--

Response body

```
{
  "digit": "5"
}
```

Download

Response headers

```
content-length: 13
content-type: application/json
date: Wed, 24 Apr 2024 10:07:01 GMT
server: uvicorn
```

file required

string(\$binary)

Choose file7.jpg

Execute

Clear

Responses

Curl

curl -X 'POST' \  
'http://localhost:8000/predict/' \  
-H 'accept: application/json' \  
-H 'Content-Type: multipart/form-data' \  
-F 'file=@7.jpg;type=image/jpeg'

Request URL

http://localhost:8000/predict/

Server response

CodeDetails

200

Response body

{  
  "digit": "7"  
}

Download

Response headers

content-length: 13  
content-type: application/json  
date: Wed, 24 Apr 2024 10:07:11 GMT  
server: uvicorn

Curl

curl -X 'POST' \  
'http://localhost:8000/predict/' \  
-H 'accept: application/json' \  
-H 'Content-Type: multipart/form-data' \  
-F 'file=@9.jpg;type=image/jpeg'

Request URL

http://localhost:8000/predict/

Server response

CodeDetails

200

Response body

{  
  "digit": "9"  
}

Download

Response headers

content-length: 13  
content-type: application/json  
date: Wed, 24 Apr 2024 10:06:31 GMT  
server: uvicorn

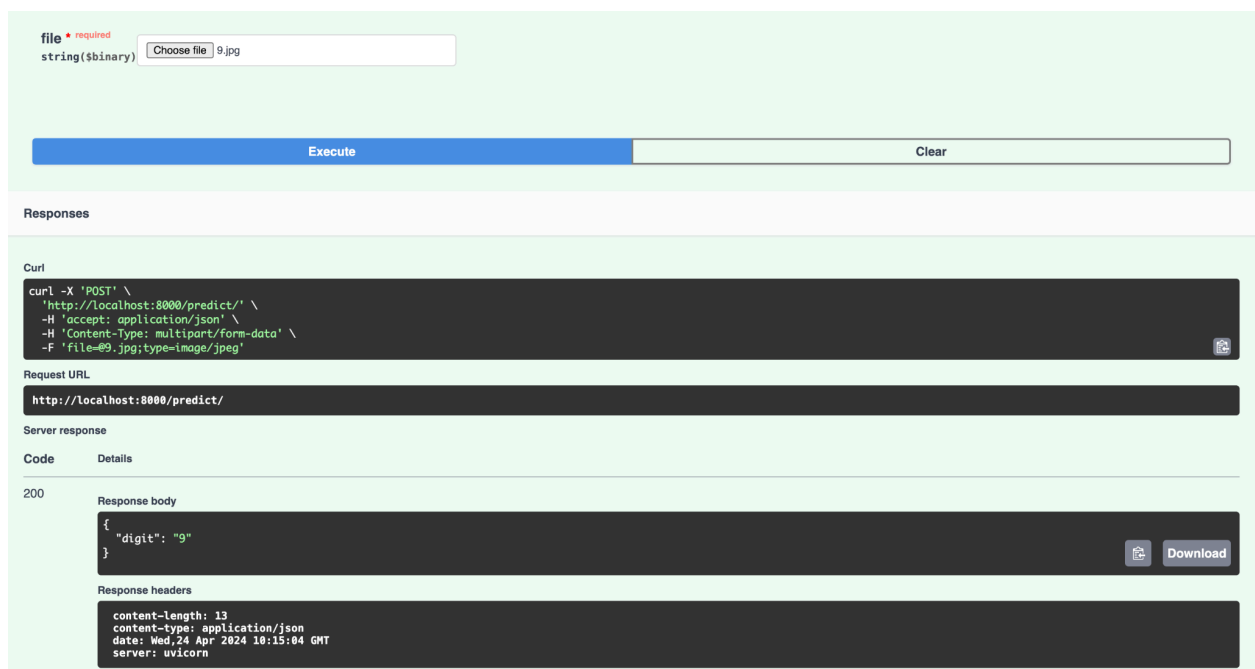
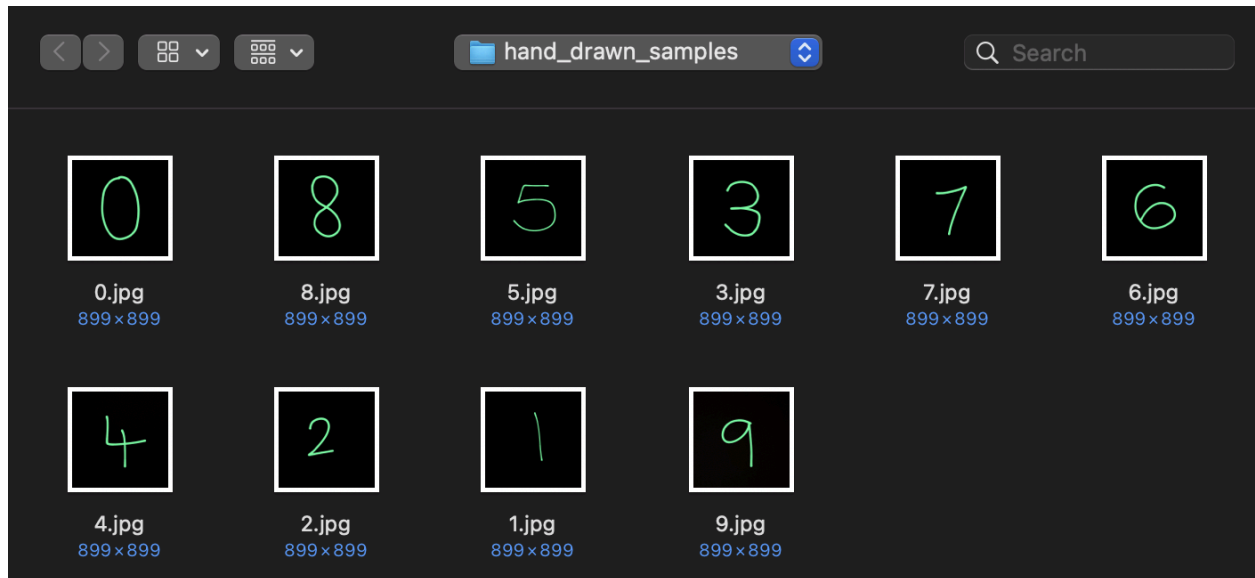
*Good Outputs as expected!*

## Task 2:

Run `python task2.py mnist_model.h5` in terminal

I drew with the sketch option on WhatsApp.

Notice the difference in size compared to the 28\*28 from MNIST (here it's 899\*899)



file • required  
string(\$binary)  8.jpg

Execute

Clear

#### Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@8.jpg;type=image/jpeg'
```

Request URL

<http://localhost:8000/predict/>

Server response

Code	Details
------	---------

200

Response body

```
{
  "digit": "8"
}
```

Response headers

```
content-length: 13
content-type: application/json
date: Wed, 24 Apr 2024 10:14:51 GMT
server: uvicorn
```

file • required  
string(\$binary)  7.jpg

Execute

Clear

#### Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@7.jpg;type=image/jpeg'
```

Request URL

<http://localhost:8000/predict/>

Server response

Code	Details
------	---------

200

Response body

```
{
  "digit": "7"
}
```

Response headers

```
content-length: 13
content-type: application/json
date: Wed, 24 Apr 2024 10:14:39 GMT
server: uvicorn
```

file • required  
string(\$binary)  6.jpg

Execute

Clear

#### Responses

##### Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-type: multipart/form-data' \
  -F 'file=6.jpg;type=image/jpeg'
```

##### Request URL

http://localhost:8000/predict/

##### Server response

Code Details

200

##### Response body

```
{
  "digit": "6"
}
```

##### Response headers

```
content-length: 13
content-type: application/json
date: Wed, 24 Apr 2024 10:14:28 GMT
server: uvicorn
```

file • required  
string(\$binary)  5.jpg

Execute

Clear

#### Responses

##### Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-type: multipart/form-data' \
  -F 'file=5.jpg;type=image/jpeg'
```

##### Request URL

http://localhost:8000/predict/

##### Server response

Code Details

200

##### Response body

```
{
  "digit": "5"
}
```

##### Response headers

```
content-length: 13
content-type: application/json
date: Wed, 24 Apr 2024 10:14:13 GMT
server: uvicorn
```

file \* required  
string(\$binary)

Execute Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@4.jpg;type=image/jpeg'
```

Request URL

**http://localhost:8000/predict/**

Server response

Code Details

200

Response body

```
{
  "digit": "4"
}
```

Response headers

content-length: 13  
content-type: application/json  
date: Wed, 24 Apr 2024 10:14:01 GMT  
server: uvicorn

file \* required  
string(\$binary)

Execute Clear

Responses

Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@3.jpg;type=image/jpeg'
```

Request URL

**http://localhost:8000/predict/**

Server response

Code Details

200

Response body

```
{
  "digit": "3"
}
```

Response headers

content-length: 13  
content-type: application/json  
date: Wed, 24 Apr 2024 10:13:47 GMT  
server: uvicorn



file \* required  
string(\$binary)  2.jpg

Execute Clear

## Responses

### Curl

```
curl -X 'POST' \
  'http://localhost:8000/predict/' \
  -H 'accept: application/json' \
  -H 'Content-Type: multipart/form-data' \
  -F 'file=@2.jpg;type=image/jpeg'
```

### Request URL

**http://localhost:8000/predict/**

### Server response

Code	Details
------	---------

200

Response body

```
{
  "digit": "2"
}
```

Download

Response headers

```
content-length: 13
content-type: application/json
date: Wed, 24 Apr 2024 10:13:34 GMT
server: uvicorn
```

file required

string(\$binary)

Choose file1.jpg

ExecuteClear

Responses

Curl

curl -X 'POST' \  
'http://localhost:8000/predict/' \  
-H 'accept: application/json' \  
-H 'Content-Type: multipart/form-data' \  
-F 'file=@1.jpg;type=image/jpeg'

Request URL

http://localhost:8000/predict/

Server response

CodeDetails

200

Response body

{  
  "digit": "1"  
}

Download

Response headers

content-length: 13  
content-type: application/json  
date: Wed, 24 Apr 2024 10:13:21 GMT  
server: uvicorn

file required

string(\$binary)

Choose file0.jpg

ExecuteClear

Responses

Curl

curl -X 'POST' \  
'http://localhost:8000/predict/' \  
-H 'accept: application/json' \  
-H 'Content-Type: multipart/form-data' \  
-F 'file=@0.jpg;type=image/jpeg'

Request URL

http://localhost:8000/predict/

Server response

CodeDetails

200

Response body

{  
  "digit": "0"  
}

Download

Response headers

content-length: 13  
content-type: application/json  
date: Wed, 24 Apr 2024 10:13:07 GMT  
server: uvicorn

*Great Performance on **all 10 digits** from the hand-drawn samples is shown by the modified code (that is, task2.py!*

**Accuracy: 100%**