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**3. [LO 1, LO 2, LO 3, LO 4, LO 5 - 15 points] Melakukan proses deployment API dengan menggunakan FastAPI dan melakukan 3 test case pada FastAPI untuk proses POST berdasarkan code prediction yang telah anda siapkan (mohon sertakan screenshoot hasil testing yang anda lakukan)**

   a. **Testing 1:**
     **Real Data : NO**

| 29 | technician | single | basic.9y | no | yes | no | cellular | nov | wed | 648.0 | 1 | 999 | 0 | nonexistent | no |
|----|-----------|--------|----------|-----|-----|-----|----------|-----|-----|-------|---|-----|---|-------------|-----|

Prediction Test:
```
{
  "age": 29,
  "job": "technician",
  "marital": "single",
  "education": "basic.9y",
  "default": "no",
  "housing": "yes",
  "loan": "no",
  "contact": "cellular",
  "month": "nov",
  "day_of_week": "wed",
  "duration": 648.0,
  "campaign": 1,
  "pdays": 999,
  "previous": 0,
  "poutcome": "nonexistent"
}
```
**Prediction : NO**

Server response

| Code | Details |
|------|---------|
| 200 | **Response body** |

```
{
  "prediction": "no",
  "meaning": "Individu tersebut kemungkinan besar tidak akan berlangganan deposito berjangka."
}
```
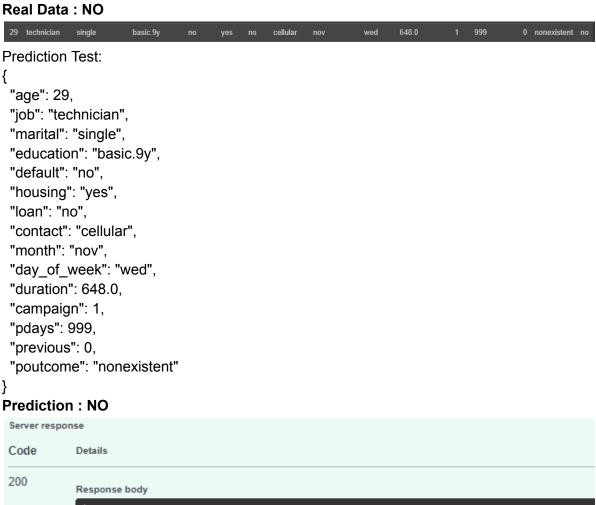
Response headers

```
content-length: 111
content-type: application/json
date: Thu,11 Jul 2024 17:26:02 GMT
server: uvicorn
```

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```
Curl

curl -X 'POST' \
  'http://127.0.0.1:8000/predict' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "age": 29,
  "job": "technician",
  "marital": "single",
  "education": "basic.9y",
  "default": "no",
  "housing": "yes",
  "loan": "no",
  "contact": "cellular",
  "month": "nov",
  "day_of_week": "wed",
  "duration": 648.0,
  "campaign": 1,
  "pdays": 999,
  "previous": 0,
  "poutcome": "nonexistent"
}'

Request URL

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

Disertai dengan penjelasan bahwa "individu tersebut kemungkinan besar tidak akan berlangganan deposito berjangka."

Kesimpulannya, **prediksi ini adalah benar** dan **sesuai dengan data asli**. Data asli menunjukkan **"no"**, dan prediksi yang dihasilkan oleh model juga menyatakan **"no"**.
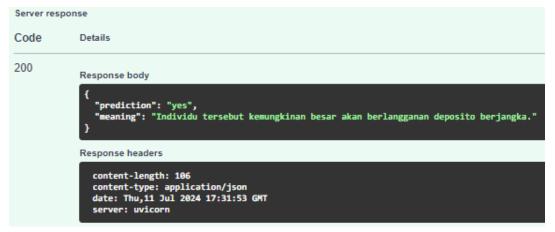
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**b. Testing 2:**
**Real Data : YES**

| 36 | technician | married | basic.4y | no | no | no | cellular | jul | mon | 854.0 | 1 | 999 | 0 | nonexistent | yes |
|----|-----------|---------|----------|----|----|----|----------|-----|-----|-------|---|-----|---|-------------|-----|

Prediction Test:

```
{
  "age": 36,
  "job": "technician",
  "marital": "married",
  "education": "basic.4y",
  "default": "no",
  "housing": "no",
  "loan": "no",
  "contact": "cellular",
  "month": "jul",
  "day_of_week": "mon",
  "duration": 854.0,
  "campaign": 1,
  "pdays": 999,
  "previous": 0,
  "poutcome": "nonexistent"
}
```

**Prediction : YES**

Server response

| Code | Details |
|------|---------|
| 200 | **Response body** |

```
{
  "prediction": "yes",
  "meaning": "Individu tersebut kemungkinan besar akan berlangganan deposito berjangka."
}
```

Response headers

```
content-length: 106
content-type: application/json
date: Thu,11 Jul 2024 17:31:53 GMT
server: uvicorn
```

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```
Curl

curl -X 'POST' \
  'http://127.0.0.1:8000/predict' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "age": 36,
  "job": "technician",
  "marital": "married",
  "education": "basic.4y",
  "default": "no",
  "housing": "no",
  "loan": "no",
  "contact": "cellular",
  "month": "jul",
  "day_of_week": "mon",
  "duration": 854.0,
  "campaign": 1,
  "pdays": 999,
  "previous": 0,
  "poutcome": "nonexistent"
}'

Request URL

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

Disertai dengan penjelasan bahwa "individu tersebut kemungkinan besar akan berlangganan deposito berjangka."

Kesimpulannya, **prediksi ini adalah benar** dan **sesuai dengan data asli**. Data asli menunjukkan **"yes"**, dan prediksi yang dihasilkan oleh model juga menyatakan **"yes"**.
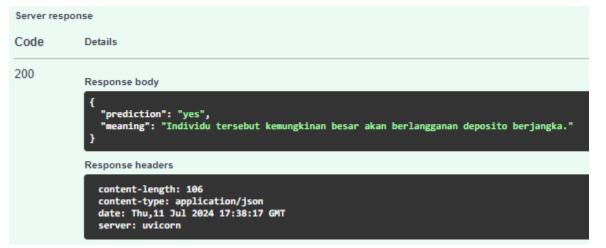
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c. **Testing 3:**
**Real Data : YES**

| 28 | technician | single | high.school | no | yes | yes | cellular | may | thu | 609.0 | 1 | 11 | 1 | success | yes |
|----|-----------|--------|-------------|----|----|----|---------|-----|-----|-------|---|----|---|---------|-----|

Prediction Test:

```
{
  "age": 28,
  "job": "technician",
  "marital": "single",
  "education": "high.school",
  "default": "no",
  "housing": "yes",
  "loan": "no",
  "contact": "cellular",
  "month": "may",
  "day_of_week": "thu",
  "duration": 609.0,
  "campaign": 1,
  "pdays": 11,
  "previous": 1,
  "poutcome": "success"
}
```

**Prediction : YES**

Server response

| Code | Details |
|------|---------|
| 200  | Response body |

```
{
  "prediction": "yes",
  "meaning": "Individu tersebut kemungkinan besar akan berlangganan deposito berjangka."
}
```

Response headers

```
content-length: 106
content-type: application/json
date: Thu,11 Jul 2024 17:38:17 GMT
server: uvicorn
```

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```
Curl

curl -X 'POST' \
  'http://127.0.0.1:8000/predict' \
  -H 'accept: application/json' \
  -H 'Content-Type: application/json' \
  -d '{
  "age": 28,
  "job": "technician",
  "marital": "single",
  "education": "high.school",
  "default": "no",
  "housing": "yes",
  "loan": "no",
  "contact": "cellular",
  "month": "may",
  "day_of_week": "thu",
  "duration": 609.0,
  "campaign": 1,
  "pdays": 11,
  "previous": 1,
  "poutcome": "success"
}'

Request URL

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

Disertai dengan penjelasan bahwa "individu tersebut kemungkinan besar akan berlangganan deposito berjangka."

Kesimpulannya, **prediksi ini adalah benar** dan **sesuai dengan data asli**. Data asli menunjukkan **"yes"**, dan prediksi yang dihasilkan oleh model juga menyatakan **"yes"**.