

# 풀스택서비스구축

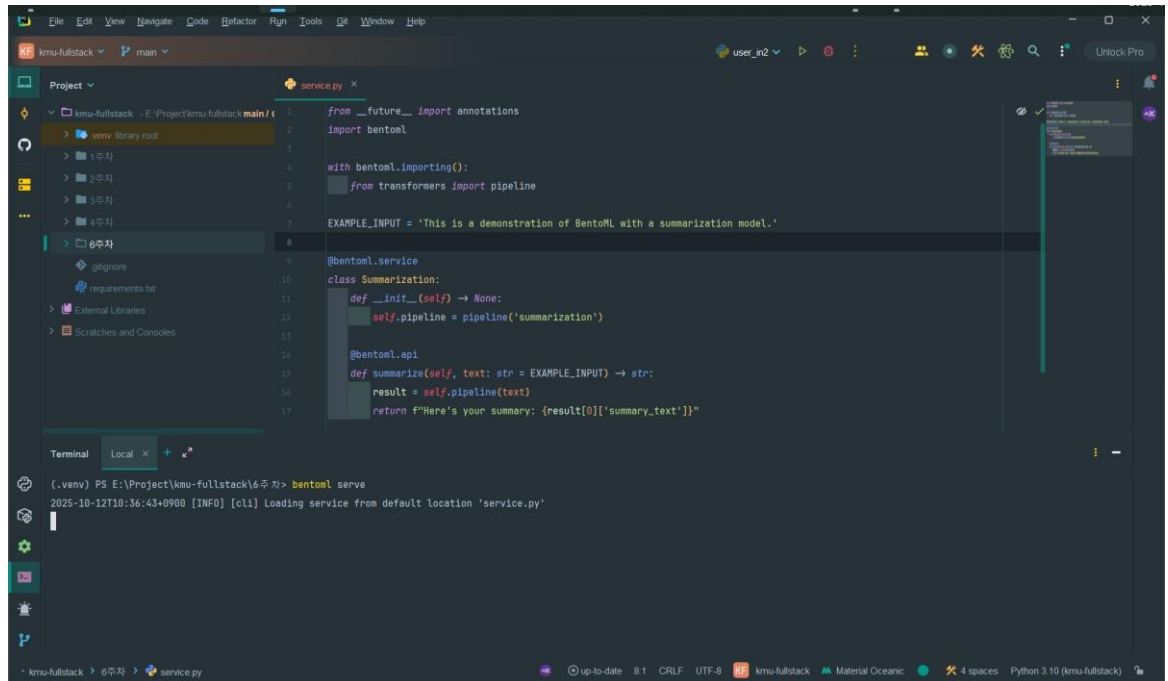
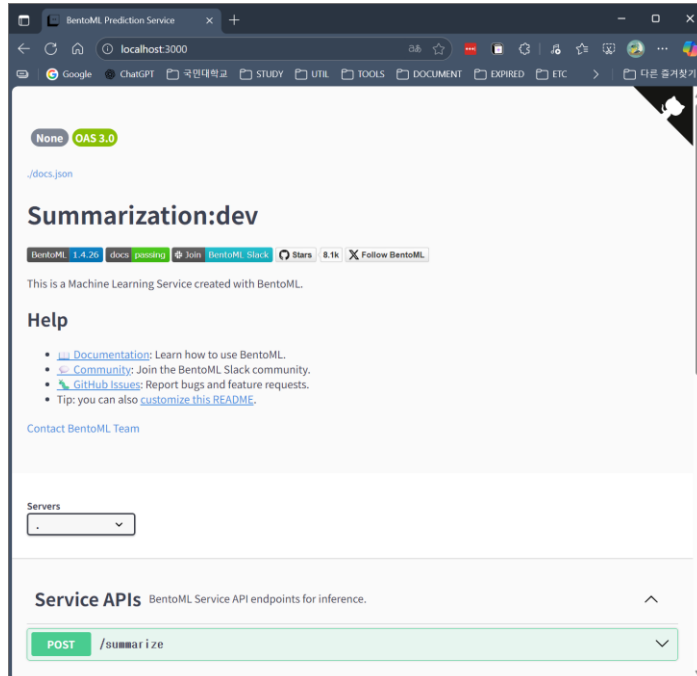
## 6 주차 과제

인공지능응용

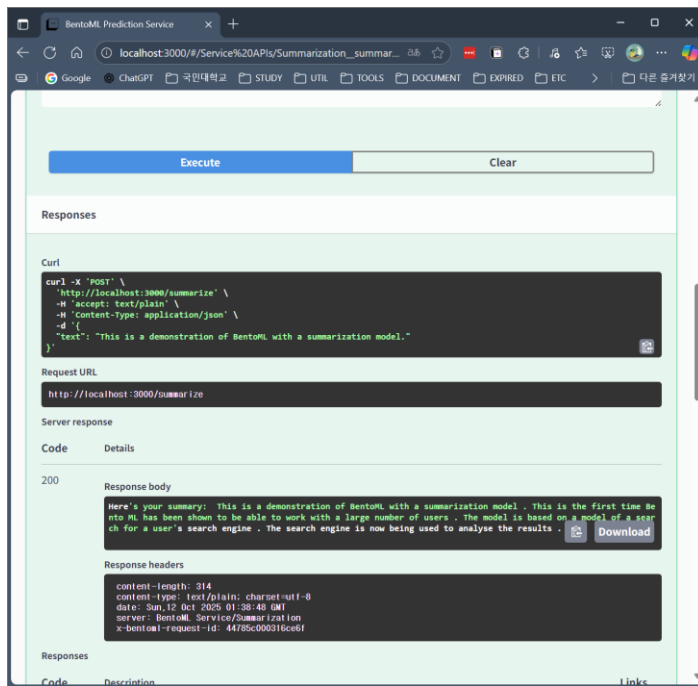
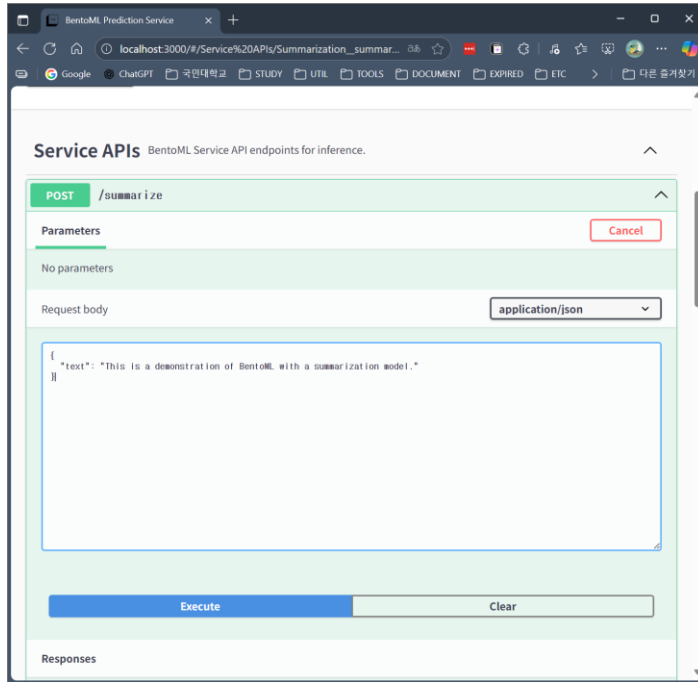
K2025029 금동환

## 목차

1. Hugging face transformer 모델
  - A. 서비스 만들기
  - B. 서버 실행
  - C. 요청 보내기, 응답 확인
2. Scikit-learn Iris 분류 모델
  - A. 실행
  - B. 서비스 만들기
  - C. 서비스 실행
  - D. 테스트

1. Hugging face transformer 모델A. 서비스 만들기B. 서버 실행

C. 요청 보내기, 응답 확인



## 2. Scikit-learn Iris 분류 모델

### A. 실행

```

1 from sklearn import datasets
2 from sklearn.ensemble import RandomForestClassifier
3 from sklearn.model_selection import train_test_split
4 import bentoml
5
6 iris = datasets.load_iris()
7 x_train, x_test, y_train, y_test = train_test_split(
8     iris.data, iris.target, test_size=0.2, random_state=42
9 )
10
11 model = RandomForestClassifier()
12 model.fit(x_train, y_train)
13
14 bentoml.sklearn.save_model(
15     name='iris_rf_model',
16     model=model,
17     signatures={'predict': {'batchable': True}}, Expected type 'dict[str, ModelSignature] | dict[str, ModelSignatureDict] | None'
18 )
19
20 print('동한 모델이 저장되었습니다.')

```

```

(.venv) PS E:\Project\kmu-fullstack\6주차> python .\train_model.py
동한 모델이 저장되었습니다.
(.venv) PS E:\Project\kmu-fullstack\6주차>

```

### B. 서비스 만들기

```

1 import bentoml
2 from pydantic import BaseModel
3 import numpy as np
4
5 class IrisInput(BaseModel):
6     sepal_length: float
7     sepal_width: float
8     petal_length: float
9     petal_width: float
10
11 class IrisOutput(BaseModel):
12     prediction: int
13
14 @bentoml.service(name='iris_classifier')
15 class IrisService:
16     def __init__(self):
17         self.model = bentoml.models.get('iris_rf_model:latest').load_model()
18
19 @bentoml.api

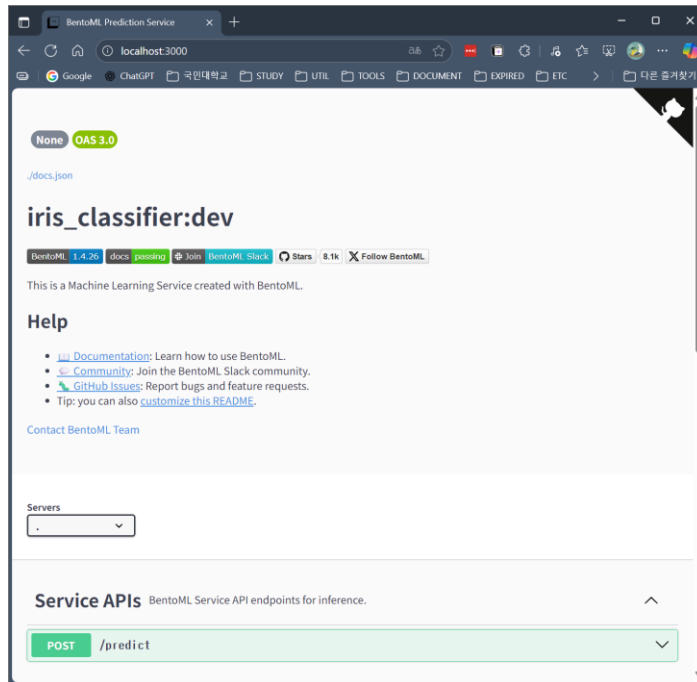
```

```

(.venv) PS E:\Project\kmu-fullstack\6주차> bentoml serve iris_service.py:IrisService
2025-10-12T10:53:22+0900 [INFO] [cli] Starting production HTTP BentoServer from "iris_service.py:IrisService" listening on http://localhost:3000 (Press CTRL+C to quit)
2025-10-12T10:53:25+0900 [INFO] [entry_service:Iris_classifier:1] Service Iris_classifier initialized

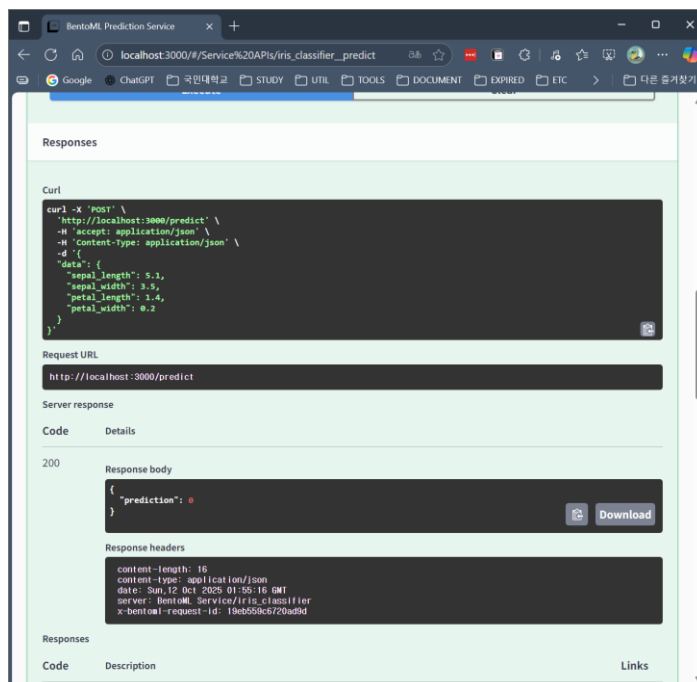
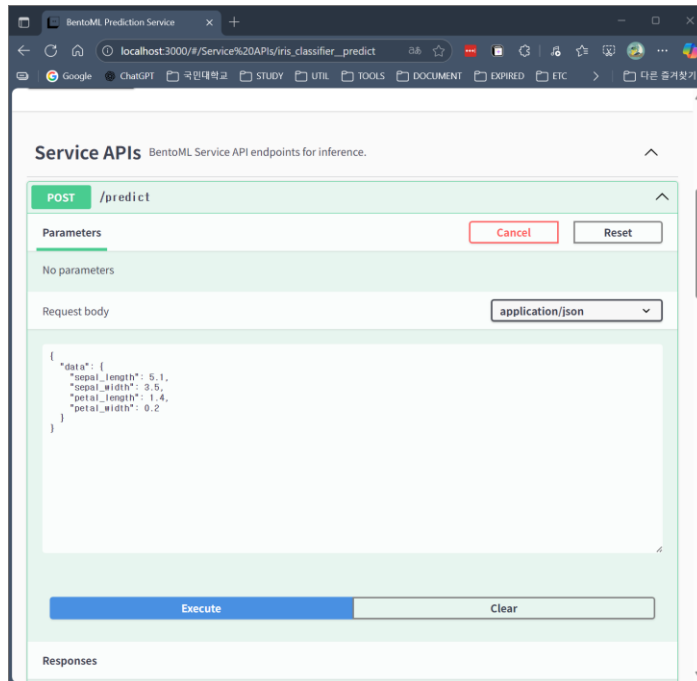
```

C. 서비스 실행



D. 테스트

Prediction 0



## Prediction 1

