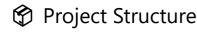
README.md 2025-08-17



## 🔄 Iris Classification API

This project is a FastAPI-based web service that predicts the species of an Iris flower using a trained machine learning model.



FastAPI app — model.pkl

Trained ML model (RandomForestClassifier) ——load\_iris\_data.py

Data loading and preprocessing —— README.md

Project documentation — screenshots/

Saved screenshots for documentation



1 Create and activate Anaconda environment

```
conda create -n iris_api_env python=3.11
conda activate iris_api_env

2  Install dependencies
pip install fastapi uvicorn joblib numpy scikit-learn

3  Run the server
uvicorn main:app --reload

4  Test the API
Open your browser and go to:
http://127.0.0.1:8000/docs
Use Swagger UI to send a POST request to /predict with:
{
    "sepal_length": 5.1,
```

README.md 2025-08-17

```
"sepal_width": 3.5,
  "petal_length": 1.4,
 "petal_width": 0.2
Expected response:
  "predicted_class": 0,
 "species": "Setosa"
Model Details
- Algorithm: RandomForestClassifier
- Training: Done in Google Colab using the Iris dataset
- Export: Saved as model.pkl using joblib
⋒ Screenshots
⋄ Project Folder Structure
Project Folder Structure
♦ Swagger UI Response 1
Swagger UI Response 1
♦ Swagger UI Response 2
Swagger UI Response 2
♦ Terminal Running Server
Terminal Running Server
♠ Author
- Name: Lakma Gunathilake
- Course: Intelligence Systems
- Institution: Horizon Campus
```