Cloud and API Deployment

Report date: 4/5/25 Internship Batch:

Version:

Data intake by: Manil Shangle Data intake reviewer: Data Glacier

Data storage location: <location URL eg: github, cloud>

Tabular data details:

Total number of observations	151
Total number of files	1
Total number of features	4
Base format of the file	.csv
Size of the data	5 KB

1. AWS Elastic Beanstalk Setup

- Platform: Python 3.13 on 64-bit Amazon Linux 2023 (Managed Platform).
- Environment Tier: Web server environment (for HTTP requests).
- Application Name: DataGlacierInternship.
- Domain: DataGlacierApp.eba-bmgazrgj.us-east-1.elasticbeanstalk.com.

2. Flask API Configuration

- Framework: Flask (Python) for flower species prediction.
- Dependencies:

```
Flask==2.0.1

scikit-learn==1.0.2

numpy==1.21.2
```

3. Deployment Process

- Prepared Flask app with /predict endpoint for model inference.
- Initialized Elastic Beanstalk CLI:

eb init -p python-3.13 DataGlacierInternship --region us-east-1

Deployed using:

eb create DataGlacierApp --envvars FLASK_APP=app.py

• Verification: Confirmed health status "Ok" in AWS EB dashboard.

4. Testing

• Input: User submits flower measurements (Sepal/Petal Length/Width).

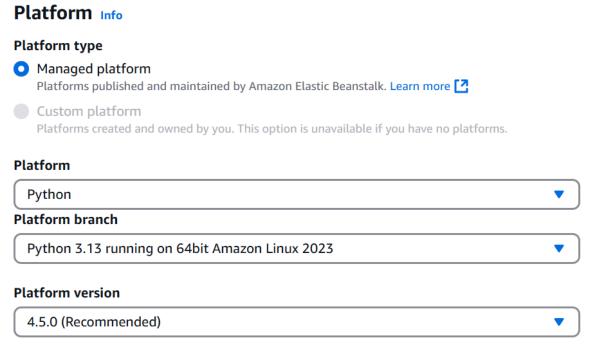
• Output: Predicted species (e.g., Iris-setosa) displayed on the web interface.

Flower Species Prediction

Enter the flower measurements below to predict its species.



Environment overview Health Ok Domain DataGlacierApp.eba-bmgazrgj.us-east-1.elasticbeanstalk.com Platform Info Platform type Environment ID □ e-zgpmgevfjf Application name DataGlacierInternship



Configure environment Info

Environment tier Info Amazon Flastic Beanstalk has tw

Amazon Elastic Beanstalk has two types of environment tiers to support different types of web applications.

Web server environment

Run a website, web application, or web API that serves HTTP requests. Learn more

Worker environment

Run a worker application that processes long-running workloads on demand or performs tasks on a schedule. Learn more 🔀

Application information Info

Application name

Data Glacier Internship

Maximum length of 100 characters.

Compute

Amazon Elastic Beanstalk End-to-end web application management.

Amazon Elastic Beanstalk is an easy-to-use service for deploying and scaling web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go, and Docker on familiar servers such as Apache, Nginx, Passenger, and IIS.

Get started

Easily deploy your web application in minutes.

Create application