

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.

Sepal Length (cm):
e.g., 5.1

Sepal Width (cm):
e.g., 3.5

Petal Length (cm):
e.g., 1.4

Petal Width (cm):
e.g., 0.2


Predict

Environment overview


Health

 Ok

Domain

DataGlacierApp.eba-bmgazrgj.us-east-1.elasticbeanstalk.com 

Environment ID


 e-zgpmgevffj

Application name


DataGlacierInternship

Platform [Info](#)


Platform type

- ☒ Managed platform
Platforms published and maintained by Amazon Elastic Beanstalk. [Learn more](#) 
- ☐ Custom platform
Platforms created and owned by you. This option is unavailable if you have no platforms.


Platform

Python 

Platform branch

Python 3.13 running on 64bit Amazon Linux 2023 



Platform version

4.5.0 (Recommended) 

Configure environment [Info](#)

Environment tier [Info](#)

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

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](#)