

Final Project Step 2

Group 6: Dae Hwang & Pratham Choksi

Change IP Address

Record name	Type	Routing p...	Alias	Value/Route traffic to	TTL (s...)
uva-ds5110.com	NS	Simple	-	ns-1733.awsdns-24.co.uk, ns-1173.awsdns-18.org, ns-166.awsdns-20.com, ns-949.awsdns-54.net.	172800
uva-ds5110.com	SOA	Simple	-	ns-1733.awsdns-24.co.uk. a...	900
fa.uva-ds5110.com	A	Simple	-	dualstack.demo-569634734...	-
_dldf9934327659eca326d0ff52d954ff.fu.uva-ds5110.com	CNAME	Simple	-	_920426eas54ff1277a39d...	300
finance.uva-ds5110.com	A	Simple	-	dualstack.fu-ib-1609307697...	-
_464fcb1d4768dfad621544bcb3d69c.finance.uva-ds5110.com	CNAME	Simple	-	_a3442592a2ae733faac15ad...	300
rendezvous-team1.uva-ds5110.com	A	Simple	-	100.27.228.234	300
rendezvous.uva-ds5110.com	A	Simple	-	54.204.82.208	300

Connection Test

```
import logging
logger = logging.getLogger()
logger.setLevel(logging.INFO)

class PeerConnectionData(ctypes.Structure):
    _fields_ = [
        ("ip", ctypes.c_uint32), # IPv4 address
        ("port", ctypes.c_uint16)
    ]

def lambda_handler(event, context):
    print("receiving event: ", event)

    comSocket = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
    comSocket.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
    comSocket.setsockopt(socket.SOL_SOCKET, socket.SO_REUSEADDR, 1)
    comSocket.connect(("rendezvous.uva-ds5110.com", 8000))

    print("rendezvous connection successful!")
```

Execution Results: {"statusCode": 200}

Execution of DataParallel_CosmicAI-FMI

The screenshot displays the AWS Step Functions console for the execution `2ebb8754-9520-4367-b7c3-0bbe01f891bc`. The left sidebar shows navigation options like **Step Functions**, **State machines**, and **Developer resources**. The main area is divided into **Details**, **Execution input and output**, and **Definition** tabs. The **Execution input and output** tab is active, showing the state input and output. The state input is a JSON object with fields like `object_type`, `bucket`, `file_list`, `batch_size`, `ss_object_name`, `script`, `result_path`, `data_bucket`, and `data_prefix`. The state output is a simple JSON object with a single field `1`. Below the input/output, the **Graph view** shows a state machine diagram with steps: **Initialize**, **Overview Step (Docker Payload Distributed Test)**, **Model Inference**, and **Summarize**. The **Step details** panel on the right is empty, showing a message to choose a step to view its details.

CloudWatch Log shows FMI connection

The screenshot shows the AWS CloudWatch Logs console with a log group containing several log entries. The log entries are filtered by the message `rendezvous connection successful!`. The log entries show the following details:

- Timestamp:** 2025-07-26T04:40:02.204Z
- Message:** END RequestId: 7f48bd04-7f0d-4a17-83a2-5297d4f3672a
- Timestamp:** 2025-07-26T04:40:02.204Z
- Message:** REPORT RequestId: 7f48bd04-7f0d-4a17-83a2-5297d4f3672a Duration: 585.83 ms Billed Duration: 586 ms Memory Size: 128 MB Max Memory Used: 89 MB
- Timestamp:** 2025-07-26T04:44:57.823Z
- Message:** START RequestId: 6a2a6b7a-b532-4208-908f-60b0c9aef0e Version: \$LATEST
- Timestamp:** 2025-07-26T04:44:57.823Z
- Message:** receiving event: {'object_type': 'folder', 'bucket': 'cosmicai-data', 'file_list': '12', 'batch_size': 512, 'ss_object_name': 'Anomaly Detection', 'script': '/tmp/Anomaly Detection/Inference/Inference_FMI.py', 'result_path': 'result-partition-100MB/100/1', 'd-'
- Timestamp:** 2025-07-26T04:44:57.884Z
- Message:** rendezvous connection successful!

Bill Duration and Memory Usage

The screenshot shows the AWS CloudWatch Logs console with a log group containing several log entries. The log entries are filtered by the message `rendezvous connection successful!`. The log entries show the following details:

- Timestamp:** 2025-07-26T04:40:32.441Z
- Message:** INIT_START Runtime Version: python:3.12.v70 Runtime Version ARN: arn:aws:lambda:us-east-1::runtime:b5ce413242a9b8ef08a469804de4b943c0679481f66d34d1a1dd06ad4e16fe8
- Timestamp:** 2025-07-26T04:40:32.723Z
- Message:** START RequestId: 63356998-48ea-4bfa-86dd-5ad6169e614e Version: \$LATEST
- Timestamp:** 2025-07-26T04:40:40.514Z
- Message:** END RequestId: 63356998-48ea-4bfa-86dd-5ad6169e614e
- Timestamp:** 2025-07-26T04:40:40.514Z
- Message:** REPORT RequestId: 63356998-48ea-4bfa-86dd-5ad6169e614e Duration: 7790.95 ms Billed Duration: 7791 ms Memory Size: 128 MB Max Memory Used: 90 MB Init Duration: 278.58 ms
- Timestamp:** 2025-07-26T04:45:22.283Z
- Message:** START RequestId: 1324fe80-c1e1-49f4-8bf8-e519b335928a Version: \$LATEST
- Timestamp:** 2025-07-26T04:45:27.682Z
- Message:** END RequestId: 1324fe80-c1e1-49f4-8bf8-e519b335928a
- Timestamp:** 2025-07-26T04:45:27.682Z
- Message:** REPORT RequestId: 1324fe80-c1e1-49f4-8bf8-e519b335928a Duration: 5392.81 ms Billed Duration: 5393 ms Memory Size: 128 MB Max Memory Used: 90 MB