

OUBT Week 1 – Day 2–3: Python & Pandas & Boto3 Practice

Author: Likhith Sasank Uppalapati Venkata

Folder Structure: DAY2_PYTHON_BOTO3_PANDAS/

1. Python Practice

- Practiced core Python concepts such as lists, dictionaries, loops, functions, and error handling.
- Created and managed simple CSV files for student scores and invoice records.
- Worked with data filtering and conditional logic using Python structures.
- Focused on writing clean, reusable functions and handling exceptions gracefully.

2. Pandas Practice

- Learned to create, read, and manipulate datasets using Pandas.
- Performed basic data cleaning by removing duplicates and adding calculated columns.
- Aggregated and analyzed data to find total sales and quantities.
- Combined multiple datasets into a single, cleaned file for further use.

3. AWS S3 (Boto3) Practice

- Installed and configured Boto3 to connect Python with AWS S3.
- Created and managed an S3 bucket for uploading, listing, and downloading files.
- Integrated Pandas with AWS S3 to upload processed data and retrieve it for analysis.
- Practiced automating simple data workflows between local and cloud storage.

Account ID: 5214-3418-9830

likhith2k

United States (Ohio)

Amazon S3

Buckets

likhith-week1-demo

likhith-week1-demo

Info

Objects

Metadata

Properties

Permissions

Metrics

Management

Access Points

Objects (2)

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Find objects by prefix

Show versions

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	Likhith_Venkata_Data_Engineer_Resume.pdf	pdf	October 27, 2025, 19:06:46 (UTC-05:00)	238.8 KB	Standard
<input type="checkbox"/>	sales/	Folder	-	-	-

Storage Lens

Dashboards

Storage Lens groups

AWS Organizations settings

CloudShell

Feedback

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Amazon S3

Buckets

likhith-week1-demo

sales/

sales/

Copy S3 URI

Objects

Properties

Objects (1)

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Find objects by prefix

Show versions

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	local_sales.csv	csv	October 28, 2025, 15:11:43 (UTC-05:00)	66.0 B	Standard

Storage Lens

Dashboards

Storage Lens groups

Amazon S3

Buckets

likhith-week1-demo

sales/

sales/

Copy S3 URI

Objects

Properties

Objects (2)

Copy S3 URI

Copy URL

Download

Open

Delete

Actions

Create folder

Upload

Find objects by prefix

Show versions

<input type="checkbox"/>	Name	Type	Last modified	Size	Storage class
<input type="checkbox"/>	local_sales.csv	csv	October 28, 2025, 15:18:53 (UTC-05:00)	66.0 B	Standard
<input type="checkbox"/>	sales_with_tax.csv	csv	October 28, 2025, 15:18:53 (UTC-05:00)	116.0 B	Standard

Storage Lens

Dashboards

Storage Lens groups

AWS Organizations settings

```
1 Created local file: data/raw/local_sales.csv
2
3 Error creating bucket: An error occurred (IllegalLocationConstraintException) when calling the CreateBucket operation: The unspecified location c
4 Uploaded data/raw/local_sales.csv to s3://likhith-week1-demo/sales/local_sales.csv
5
6 Files in S3 bucket:
7   . likhith.Venkata.Data.Engineer.Resume.pdf
8   . sales/local_sales.csv
9
10 Downloaded file is in data/s3_upload/sales_downloaded.csv
11
12 Data Loaded Back from S3:
13   OrderId Customer Amount
14 0      1  Likhith   120
15 1      2  Sasank   160
16 2      3   Siva   280
17
18 After doing Tax calculation:
19   OrderId Customer Amount Tax TotalWithTax
20 0      1  Likhith   120 12.0      132.0
21 1      2  Sasank   160 16.0      176.0
22 2      3   Siva   280 28.0      308.0
23
24 Final data saved locally in data/s3_upload/sales_with_tax.csv
25 Uploaded final version to s3://likhith-week1-demo/sales/sales_with_tax.csv
26
```

4. Summary

During these sessions, I improved my understanding of Python and file handling, worked on data cleaning and analysis using Pandas, and practiced using AWS S3 with Boto3 for cloud data management. I also organized my work with a proper folder structure, keeping raw, processed, and uploaded data separate, and saving all outputs and screenshots in their own folders. This helped me follow good project practices and build a smooth workflow that connects Python, Pandas, and AWS for managing and analyzing data.