



Journey PPT

Shell Training
Week 5 – 11/9/2023 to 15/9/2023

Gaurav Singh
Associate Data Engineer



Day 1 -

- Doubt Solving session
- Repitation of Azure Data Factory
- Hands-on on Azure Data Factory
- loading the dataset into the storage account
- Creation of pipeline
- Fetching, updating rows of a table and getting affected in ADF and data storage
- Creating the dataflow and CDC for the instances





Day 2 -

- Azure Synapse Analytics
- Introduction to Azure Synapse Analytics
- Mapping of data flow
- Creation of pipeline, Data Ingestion and Preparation
- Write and execute SQL queries
- Understanding query performance optimization technique
- Exploring more options like manage, linked device creation
- Explanation with theory and practical for all of the above concepts.





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Synapse Analytics workspace

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New ▾

Ingest

Perform a one-time or scheduled data load.

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Explore and analyze

Learn how to get insights from your data.

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Visualize

Build interactive reports with Power BI capabilities.

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Day 3 -

- Data Visualization using Power-Bi
- Understanding and exploring about Power-Bi
- Connecting to the various sources
- Data load and transformation-removing duplicates, adding column, slicers, and group
- Introduction to Dax and calculated column
- Implicit and explicit measures
- Row-level security and aggregation function





Day 4 -

- Understanding various chart-type
- Report and models
- Dashboard
- Hands-on
- Recap
- Scenario-based chart preparation





Day 5 -

- Introduction to Python
- Variables, data types
- Features of python
- Creating a small data set
- Exploring functions like zip, enumerate
- Working on Lists, Dictionary, for-loop





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localhost:8889/notebooks/Untitled1.ipynb?kernel_name=python3

jupyter Untitled1 Last Checkpoint: 11 minutes ago (unsaved changes) Logout

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3 (ipykernel)

```
temperature = [78, 82, 79, 85, 88]
humidity = [60, 65, 62, 58, 57]
precipitation = [0.0, 0.2, 0.0, 0.0, 0.0]

weather_data = list(zip(dates, temperature, humidity, precipitation))

In [2]: print(weather_data)

[('2023-09-01', 78, 60, 0.0), ('2023-09-02', 82, 65, 0.2), ('2023-09-03', 79, 62, 0.0), ('2023-09-04', 85, 58, 0.0), ('2023-09-05', 88, 57, 0.0)]

In [3]: print(enumerate(weather_data))

<enumerate object at 0x7fdcc8aac630>

In [4]: print(list(enumerate(weather_data)))

[(0, ('2023-09-01', 78, 60, 0.0)), (1, ('2023-09-02', 82, 65, 0.2)), (2, ('2023-09-03', 79, 62, 0.0)), (3, ('2023-09-04', 85, 58, 0.0)), (4, ('2023-09-05', 88, 57, 0.0))]

In [5]: for day, details in enumerate(weather_data):
        print(day, details)

0 ('2023-09-01', 78, 60, 0.0)
1 ('2023-09-02', 82, 65, 0.2)
2 ('2023-09-03', 79, 62, 0.0)
3 ('2023-09-04', 85, 58, 0.0)
4 ('2023-09-05', 88, 57, 0.0)

In [9]: for day, details in enumerate(weather_data):
        if(details[1] >= 80):
            print(f"Temp is greater than 80F on day {day+1}")

Temp is greater than 80F on day 2
Temp is greater than 80F on day 4
Temp is greater than 80F on day 5

In [12]: for i in range(len(weather_data)):
        if(weather_data[i][1] >= 80):
            print(f"Temp is greater than 80F on day {i+1}")

Temp is greater than 80F on day 2
Temp is greater than 80F on day 4
Temp is greater than 80F on day 5

In [ ]:
```

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File Edit View Insert Cell Kernel Widgets Help Trusted Python 3 (ipykernel)

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In [5]: for day, details in enumerate(weather_data):
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0 ('2023-09-01', 78, 60, 0.0)
1 ('2023-09-02', 82, 65, 0.2)
2 ('2023-09-03', 79, 62, 0.0)
3 ('2023-09-04', 85, 58, 0.0)
4 ('2023-09-05', 88, 57, 0.0)

In [9]: for day, details in enumerate(weather_data):
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In [12]: for i in range(len(weather_data)):
         if(weather_data[i][1] >= 80):
             print(f"Temp is greater than 80F on day {i+1}")

Temp is greater than 80F on day 2
Temp is greater than 80F on day 4
Temp is greater than 80F on day 5

In [13]: weather_dict = {}

         for i in range(len(weather_data)):
             if(weather_data[i][1] >= 80):
                 weather_dict[weather_data[i][0]] = "Hot Day"
             else:
                 weather_dict[weather_data[i][0]] = "Cold Day"

In [14]: print(weather_dict)
{'2023-09-01': 'Cold Day', '2023-09-02': 'Hot Day', '2023-09-03': 'Cold Day', '2023-09-04': 'Hot Day', '2023-09-05': 'Hot Day'}

In [15]: user = "Gaurav Singh"
         temp = 50
         forecast = "Sunny"

         print(f"Hello {user}, the current temperature is {temp}C, and the forecast is {forecast}")

Hello Gaurav Singh, the current temperature is 50C, and the forecast is Sunny

In [ ]: |
```

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**Thank you
for your
time.**

