

Agile Sprint Project Workbook

Task Id Sprint - 1

Task ID	Task Description
1	Create an Azure Resource Group
2	Create a Storage Account blob in Azure
3	Create a Blob Container and upload files into a folder
4	Set up automatic deletion of files older than 30 days in Blob Storage
5	Create a Data Lake Gen2 and upload sample file
6	How to set up Azure storage account with hot tier, cool tier and cold tier
7	Enable file versioning in the Storage Account when a file is modified
8	Create a Snapshot for a file in Azure Storage
9	Give exclusive access to a file for one application (block others temporarily)
10	Enable soft delete to restore deleted files within 30 days
11	Change file access tier from Hot to Cool if the file is older than 30 days
12	Install Azure Storage Explorer and connect to your Storage Account
13	Connect to Storage Explorer using Access Key, Connection String, or SAS Token
14	Upload files using Azure Storage Explorer
15	Promote a previous version of a file as the current version in Blob Storage
16	Promote a Snapshot as the current version of a file

Sprint - 2

Task ID	Task Description
17	Create Azure SQL Database (using DTU and Vcores)
18	Create two tables using query editor option(insert, update, delete records)
19	Create Elasticpool
20	Create Two database using elastic pool
21	Connect Azure SQL from local SQL server managementStudio(Using SQL authentication)
22	query table data from one azure database (Sourcedb) to another database (TargetDB) in azure SQL (using po
23	Create Azure synapse dedicate SQL pool
24	Connect dedicated SQL from on-premises SQL server Managment Studio
25	Create Actual Tables from External tables using different distribution methods(Hash, round robin and replica) b

26 Sprint - 3

Task ID	Task Description
27	Create Community Data Bricks Account
28	Create Cluster And Notebook
29	Create a variable to store your name.
30	Create a variable to store your age.
31	Create a variable to store your height in meters.
32	Create a string variable with the value "Python Programming".
33	Print the length of the string. Print the string in uppercase.
34	Print the string in lowercase.
35	Print the string with the first letter capitalized.
36	Create two variables, a and b, with values 15 and 4 respectively.
37	Print the result of addition, subtraction, multiplication, division, and modulus operations using these variables.
38	Create a list with the names of five of your favorite fruits.
39	Print the first and last item in the list.
40	Add a new fruit to the list.
41	Remove the second fruit from the list.
42	Print the list in reverse order.
43	Create a list of numbers from 1 to 10.
44	Print the first three elements of the list.
45	Print the last three elements of the list.
46	Print all the elements of the list except the first two.
47	Create a tuple with the names of five countries you want to visit.
48	Print the second and fourth country in the tuple.
49	Try to change the third country in the tuple and observe what happens.
50	Print the length of the tuple.
51	Create a tuple with the values (10, 20, 30).
52	Unpack the tuple into three variables, x, y, and z.
53	Print the values of x, y, and z.
54	Create a set with the names of three different animals.
55	Add a new animal to the set.
56	Try to add a duplicate animal to the set and observe what happens.
57	Remove an animal from the set.
58	Print all the animals in the set.
59	Create two sets: set_a with values {1, 2, 3, 4, 5} and set_b with values {4, 5, 6, 7, 8}.
60	Print the union of set_a and set_b.
61	Print the intersection of set_a and set_b.

62	Print the difference between set_a and set_b.
63	Create a dictionary with three key-value pairs: your name, age, and city.
64	Print the value associated with the key name.
65	Add a new key-value pair for your favorite color.
66	Update the value of the key city.
67	Remove the key-value pair for age.
68	Create a dictionary with keys apple, banana, and cherry and their respective prices as values.
69	Print all the keys in the dictionary.
70	Print all the values in the dictionary.
71	Print all the key-value pairs in the dictionary.
72	Check if the key banana is in the dictionary.

73 SPRINT-4

Task ID	Task Description
74	How to create Dataframe with some sample data and schema
75	How to create Data Frame schema with Different Data Types
76	How to filter data
77	Difference between show and display
78	How to add new column by concatenating firstname and lastname
79	How to use case when statment to derive new column(when sal >2000 then display above middle class else b
80	How to remove duplicates
81	how to finfd the 2nd highest salary nd even dept wise
82	Aggregate salaries Union and Union all of two data frames UnionByName()
83	How to join two data frame (perform all Joins)

84 SPRINT-5

Task ID	Task Description
85	Create Two Data Frames Empdf and Deptdf find out which employees dont have any depratment matched in c
86	Find out each department name-wise how many employees we have
87	Find out Each Department wise 2nd highest salaries employees' details
88	Find out which ever employees in each department there salaries greater then 2000/-
89	Create Data Frame contains Empno,Ename,Managerid, display Employeeename and Managername
90	Create Mount Point Blob Storage Account by using Azure Active Directory app registration(CleintID,TenantId,S
91	Create Mount Point blob storage Account by using Azure Active directpory App registration(Azure Key Vault-p
92	(userdat1.parquet) Read File from Blob Storage and Write Into DBFS like CSV
93	(empbang.csv,emphyd.csv)Read Multiple files from Blob Storage into single dataframe then Write into dbfs in a
94	(userdat1.parquet) Read File from Blob Storage and Write Into DBFS in .CSV format(before writing apply some
95	Write Data from Above Dataframe into Azure SQL Database Table
96	Write Data from Above Dataframe into Azure Synapse Dedicated SQL Pool
97	create one dataframe contains data of customer related to different city, when writing data into target blob stor
98	"Create DataFrames: Create two DataFrames, one for departments and one for employees. Perform Inner Join

99 Sprint - 6

Task ID	Task Description
100	Create a Delta Table with Schema Enforcement: Ensure data integrity by enforcing a predefined schema on D
101	Create a Partitioned Delta Table: Organize data into logical subsets based on specified columns for improved
102	Read Specific Data Subsets using Partition Filters: Efficiently query and retrieve data by filtering on partition co
103	Read Old Table Versions with Time Travel Filters: Access historical table versions by specifying a timestamp o
104	Perform Data Merges (Updates): Update, insert, or delete data based on specified conditions to synchronize o
105	Rollback to a Previous Table Version: Revert the Delta table to a previous state by specifying a timestamp or v
106	How to filter specific row of delta table history on condition based (deltatable.history().filter(version==1)
107	Create Two Notebooks Notebook1 and Notebook2 , execute or call Notebook1 inside Notebook2
108	Create two NoteBooks one Note Book Create Employee Dataframe,Second NoteBook Create Dept dataframe
109	How to pass result of one Notebook into another Notebook (use result of notebook1 into notebook2)
110	How to Create Parameters and pass as input to Notebook
111	Create dataframe contains 10 rows, i want u to write this data into multiple files like parquet formate. pass para
112	I want to run the notebooks without using data factory or databricks.
113	I want to run Datafactory pipelines without using triggers in datafactory.
114	How to monitor and see the log analytics of Jobs scheduled for the Data factory pipeline and Databricks notebo
115	How to maintain the version control of the notebooks with Azure Devops Git repository?
116	What are the tehcniques used to improve the performance of a Notebook? - broadcast variable , broadcast join

117 Sprint - 7

Task ID	Task Description
118	Create Azure Data Factory
119	How to copy Data From On Premises SQL Server Database Table into Blob Storage
120	How to Copy Data From Blob Storage to Azure SQL Database Table
121	How to Copy Data From One Blob Storage to Another Blob Storage
122	Create New Data Factory, Copy Data From Onpremises SQL Server to Blob Storage. But Dont install New Se
123	How to copy data from 3 files(All 3 files schema is same) in blob storage into single file (merge of multiple files

124 Sprint - 8

Task ID	Task Description
125	Copy Multiple files (5 csv files) from blob storage to Azure SQL Database to each Table (5 Tables)
126	While copying 5 csv files into azure sql database, if any file having errors then move that file into another location
127	While copying 5 Files instead of doing Parlelly, How to load sequentially
128	I have sql server in a VM, if i want to copy data from VM, how to create a linked service and what Integration runtime to use
129	Copy 3 files from BLOB with same schema but data is different into single Azure SQL Table
130	Copy 3 files (employee.txt,depratment.txt,cityinfo.txt) with diff schema into 3 diff tables already created in azure sql database
131	If File exist in Blob storage then copy into azure sql table else send email notification like keep file in blob storage
132	Copy Data from on prem sql server table,only newly added and modified rows into blob storage based on time
133	Copy Data from on prem sql server table,only newly added and modified rows into blob storage based on time
134	How to Archive or move Files automatically into Another Storage Once File copy successfully into azure sql table
135	How to Stop and Start Synapse Dedicated SQL Service from Data Factory
136	How to Lift and shifting of SSIS Packages into Azure Data Factory

137 Sprint - 9

Task ID	Task Description
138	How to Implement SCD1 Type in Data Flows
139	How to Implement SCD2 Type in Data Flows
140	I have 5 Activities in Pipeline, If my pipeline got failed at 3rd Activity. After fixing issue and rerunning pipeline it
141	Create Pipeline Copy Data from blob file to azure sql table, this pipeline has to execute when file is placed inside
142	Create Pipeline Copy Data from blob storage file , this file contains 10 Years data. copy 10 years data into another
143	how to Schedule Pipeline1 once pipeline2 execution completed
144	Create Data Factory Integrated to Azure DevOps Git, Create Child branch and Create Pull request and merge c
145	Explore different deployment Models for Data Factory
146	Create one FTP server in your windows computer, upload one file into that, and create a pipeline to copy this f
147	Agile methodology

148 Sprint - 10

Task ID	Task Description
149	Create Fabric Capacity inside Azure and Create workspace and assign Capacity
150	Create Lakehouse and create short cut to access data from Azure Storage Account Lakehouse Create Data Pipeline
151	Create Data Pipeline to copy Multiple Tables Data from Onprem SQL to Lakehouse Multiple csv files
152	Create Data Pipeline to copy Multiple Tables Data from Onprem SQL to Lakehouse Multiple csv files incrementally
153	Create Pipeline copy data from lakehouse file to Lakehouse Table
154	Create Pipeline copy data from Lakehouse file into warehouse Table
155	Create pipeline copy data multiple csv files into multiple Tables in warehouse
156	Create Pipeline copy Multiple csv files from lakehouse into lakehouse single csv file
157	Create Notebook to read csv files from lakehouse and create dataframes using pyspark apply transformations
158	Create Notebook read parquet files and aggregate and create delta tables
159	Create Notebook load delta tables from lakehouse into warehouse tables using T-SQL commands
160	Create Data Flow Gen2 Copy data from Lakehouse Csv file data into warehouse Table
161	Create Pipeline to call Data Flow Gen2 and all Notebooks and schedule Create semantic model using Tables
162	Design Power BI Report using semantic model and share to customers