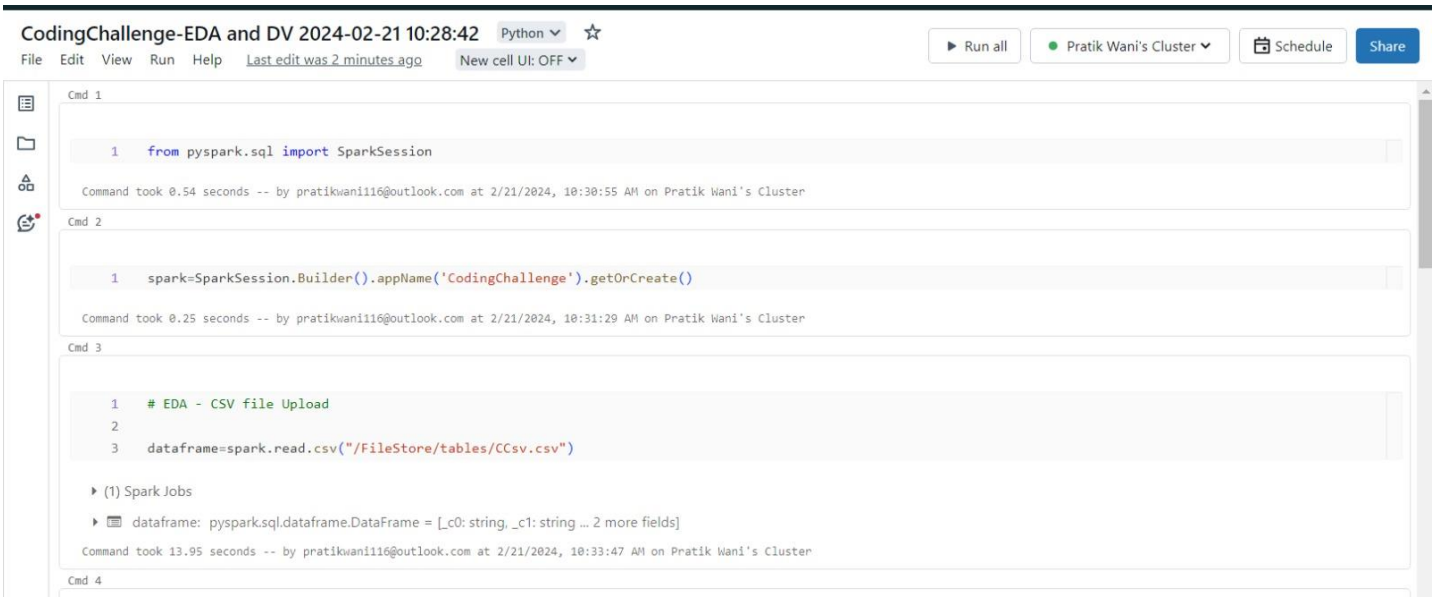
Azure Databricks Coding Challenge

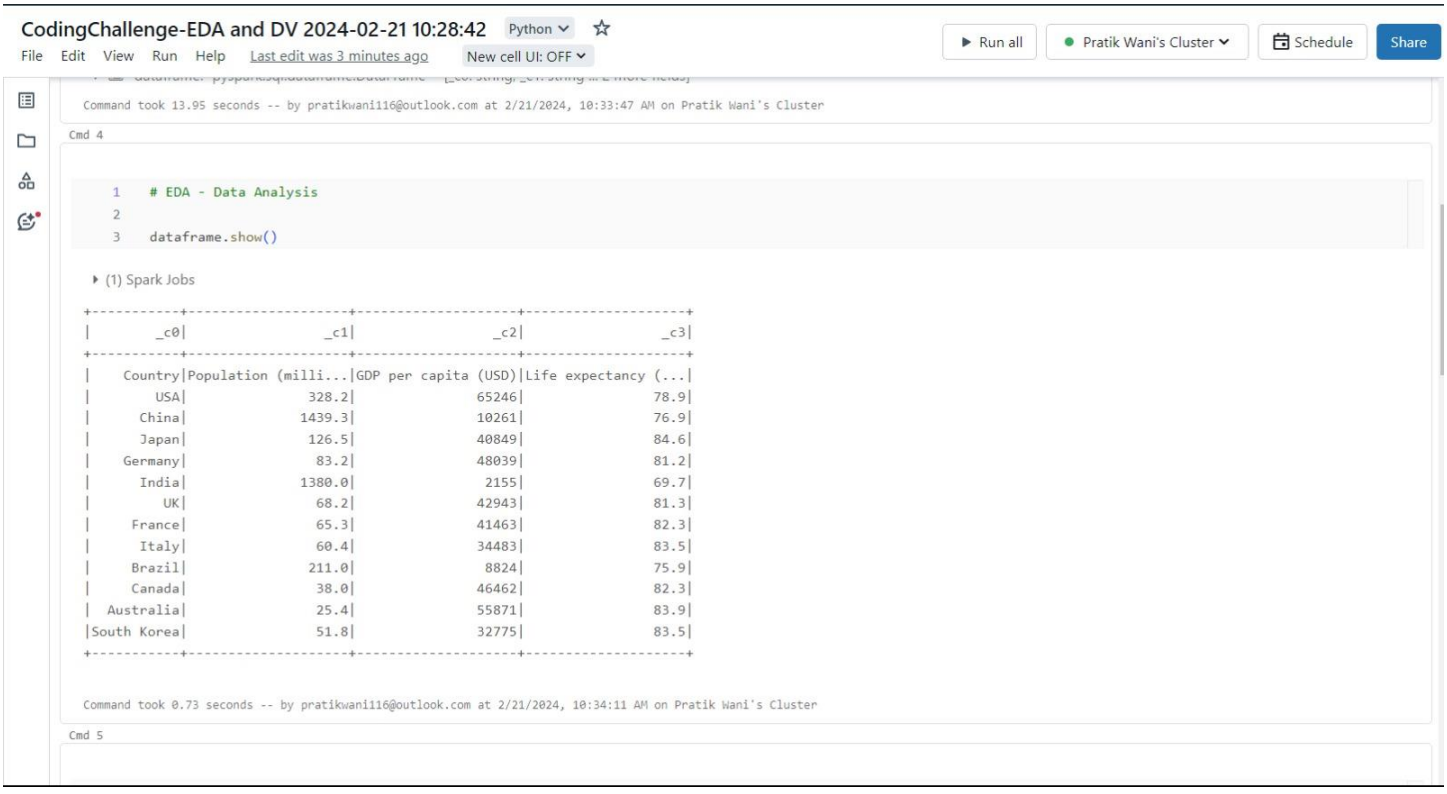
Pratik Wani

Question 1

- ❖ Exploratory data analysis (EDA) in Databricks and Visualizing data in Databricks
  - Exploratory Data Analysis (EDA) in Databricks refers to the process of exploring datasets to understand their structure, patterns, and gain insights into the data.
  - Different Steps in EDA
    - Data Upload
    - Data Reading
    - Data Statistics
    - Data Visualization
  - I created the workspace and cluster in the azure databricks and uploaded a csv file for EDA and Data Visualization

- EDA tasks:


CodingChallenge-EDA and DV 2024-02-21 10:28:42
Python
File Edit View Run Help Last edit was 2 minutes ago
New cell UI: OFF
Run all
Pratik Wani's Cluster
Schedule
Share
Cmd 1
1 from pyspark.sql import SparkSession
Command took 0.54 seconds -- by pratikwani116@outlook.com at 2/21/2024, 10:30:55 AM on Pratik Wani's Cluster
Cmd 2
1 spark=SparkSession.Builder().appName('CodingChallenge').getOrCreate()
Command took 0.25 seconds -- by pratikwani116@outlook.com at 2/21/2024, 10:31:29 AM on Pratik Wani's Cluster
Cmd 3
1 # EDA - CSV file Upload
2
3 dataframe=spark.read.csv("/FileStore/tables/CCsv.csv")
(1) Spark Jobs
dataframe: pyspark.sql.dataframe.DataFrame = [_c0: string, _c1: string ... 2 more fields]
Command took 13.95 seconds -- by pratikwani116@outlook.com at 2/21/2024, 10:33:47 AM on Pratik Wani's Cluster
Cmd 4


CodingChallenge-EDA and DV 2024-02-21 10:28:42
Python
File Edit View Run Help Last edit was 3 minutes ago
New cell UI: OFF
Run all
Pratik Wani's Cluster
Schedule
Share
Command took 13.95 seconds -- by pratikwani116@outlook.com at 2/21/2024, 10:33:47 AM on Pratik Wani's Cluster
Cmd 4
1 # EDA - Data Analysis
2
3 dataframe.show()
(1) Spark Jobs
+-----------+--------------------+--------------------+--------------------+
| _c0| _c1| _c2| _c3|
+-----------+--------------------+--------------------+--------------------+
Country	Population (milli...	GDP per capita (USD)	Life expectancy (...
USA	328.2	65246	78.9
China	1439.3	10261	76.9
Japan	126.5	40849	84.6
Germany	83.2	48039	81.2
India	1380.0	2155	69.7
UK	68.2	42943	81.3
France	65.3	41463	82.3
Italy	60.4	34483	83.5
Brazil	211.0	8824	75.9
Canada	38.0	46462	82.3
Australia	25.4	55871	83.9
South Korea	51.8	32775	83.5
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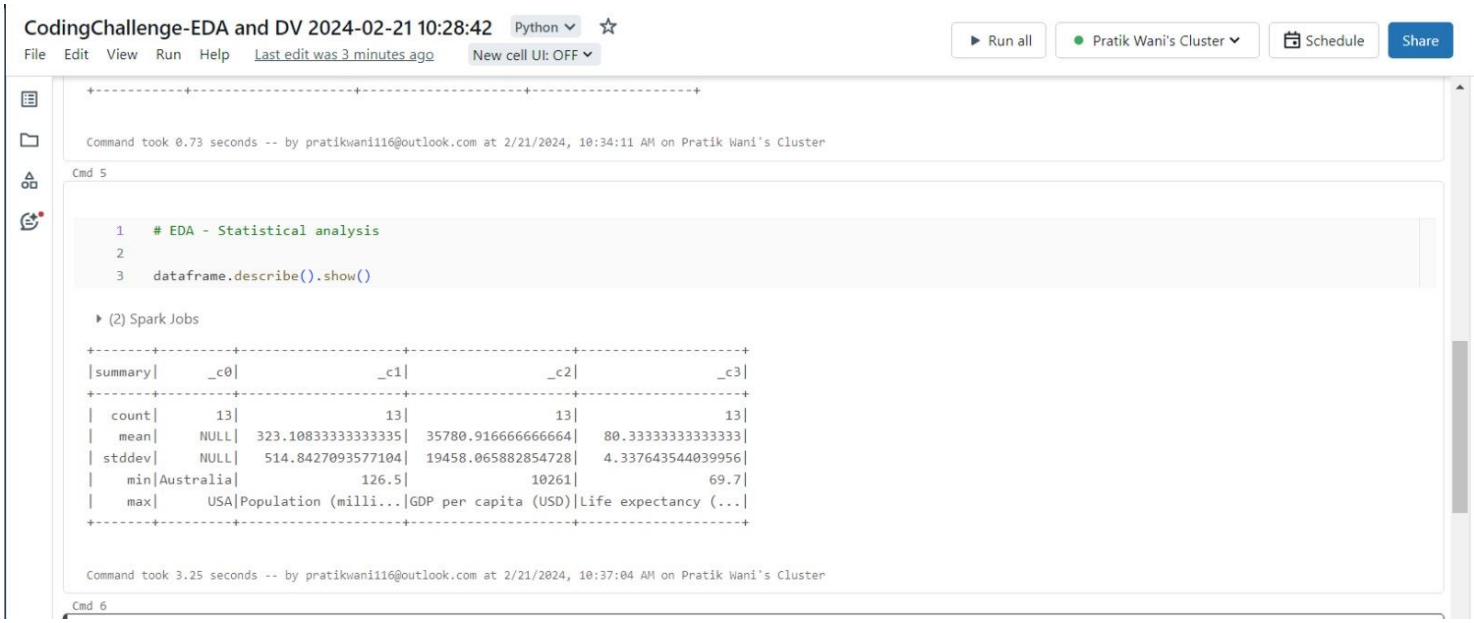
Command took 0.73 seconds -- by pratikwani116@outlook.com at 2/21/2024, 10:34:11 AM on Pratik Wani's Cluster
Cmd 5



- Data Visualization: