**✅ 1. IPL Matches (df\_matches)**

1. Display the first 5 rows.
2. Display the last 3 rows.
3. What is the shape of the dataset?
4. Show column data types.
5. Use df.info() to inspect nulls and types.
6. Get summary statistics of numerical columns.
7. Convert the season column to string type.
8. What datatype is the date column? Convert it to datetime.
9. How many unique cities have hosted IPL matches?
10. How many matches were played in the 2016 season?

**✅ 2. IPL Deliveries (df\_deliveries)**

1. Display the top 7 rows.
2. What is the shape of the dataset?
3. Use .info() and identify columns with missing values.
4. Use .describe() to explore numeric stats.
5. Print the data types using .dtypes.
6. Convert the inning column to string.
7. What are the unique values in the extra\_type column?
8. How many deliveries were bowled by “Malinga”?
9. Find the total runs scored in the dataset.
10. Display last 5 rows of the dataset.

**✅ 3. COVID-19 Global Cases (df\_covid)**

1. Show the first 10 rows.
2. Display the number of rows and columns.
3. Use .info() and interpret column types.
4. What data type are the date columns?
5. Convert the first date column to datetime (if needed).
6. Use .tail() to see latest country data.
7. Use .describe() for numeric columns.
8. Change the Country/Region column to category type.
9. How many countries are listed?
10. What is the total confirmed cases for India?

**✅ 4. Supermarket Sales (df\_supermarket)**

1. Show the first 3 rows.
2. Use .shape to get dataset size.
3. Use .info() to find nulls and dtypes.
4. Use .dtypes and print all columns with object type.
5. Use .describe() for numerical stats.
6. Convert Date column to datetime.
7. What are the unique values in Product line?
8. Convert Gender to category.
9. Count how many entries have Payment == "Cash".
10. Use .tail() to show last 4 records.

**✅ 5. Titanic (df\_titanic)**

1. Show top 5 rows.
2. Show data types using .dtypes.
3. Use .info() to count missing values.
4. Convert Pclass to string type.
5. What is the shape of the dataset?
6. Use .describe() to get age statistics.
7. Count the number of unique embarkation ports.
8. What type is the Survived column?
9. Convert Survived to bool type.
10. Use .head(10) to inspect the data.

**✅ 6. Netflix Titles (df\_netflix)**

1. Display first 7 rows.
2. Use .info() to check null values.
3. Use .dtypes to get data types.
4. What is the data type of the release\_year column?
5. Convert release\_year to string.
6. Use .shape to find how many shows are present.
7. Use .describe(include="object") for string summary.
8. Use .tail() to see last 3 titles.
9. Count unique countries represented.
10. Convert type column to category.

**✅ 7. Iris Dataset (df\_iris)**

1. Show first 5 rows using .head().
2. What is the shape of the dataset?
3. Show column types using .dtypes.
4. Use .info() to confirm memory and nulls.
5. Use .describe() to get mean and std.
6. Convert species column to category.
7. What is the data type of sepal\_length?
8. Use .tail() to see the last 2 entries.
9. Count how many flowers belong to each species.
10. Change all float columns to integers (just for fun—check if that’s possible).

**✅ 8. Airline Satisfaction (df\_airline)**

1. Display the first 5 rows.
2. Use .shape to get total rows and columns.
3. Use .info() to identify memory usage and dtypes.
4. Convert Gender to category type.
5. Use .dtypes and print all int64 columns.
6. Use .describe() to find rating averages.
7. Convert Customer Type to string.
8. Use .tail() to see last few records.
9. What are the unique values in Class?
10. Use .astype() to convert Age to float.

**✅ 9. Coffee Ratings (df\_coffee\_ratings)**

1. Show the first 5 rows.
2. Use .shape to check dataset size.
3. Use .info() to inspect column types.
4. Use .dtypes to list all float columns.
5. Use .describe() to find average total cup points.
6. Convert Country.of.Origin to category.
7. Count number of unique Variety.
8. Use .tail() to get last 5 samples.
9. Convert Harvest.Year to string.
10. Change altitude\_mean\_meters to float (if not already).

**✅ 10. Global Terrorism (df\_gtd)**

1. Show first 5 records.
2. What is the shape of the dataset?
3. Use .info() to understand nulls and types.
4. Use .dtypes to find columns with object type.
5. Convert region\_txt to category.
6. Use .describe(include='all') to summarize object columns.
7. Use .tail() to see the last 5 events.
8. Convert iyear column to string.
9. What are the unique values in attacktype1\_txt?
10. Convert nkill and nwound to integers (handle NaNs before converting).

Dtypes

Astype()

Unique()

Tail()

Describe()

Head()

Info()

Shape

value\_counts()

nunique()