

Pandas (Assignment Problems)

Let's do some practical exploration & analysis.

Assignment Problems

Q1. Start by loading the **IRIS** dataset. [*Dataset Link:* [Iris Flower Dataset](#)]

A. Display the following information:

- First 10 rows
- Shape & Data types
- Summary statistics (mean, std, min, max)

B. Select only those rows where:

- *petal_length* > 4.5
- species = "*Iris-virginica*"

C. Group by *species* and compute:

- Average *sepal_length*
- Maximum *petal_width*
- Standard deviation of *sepal_width*

D. Create a new column: "**petal_ratio**" = *petal_length* / *petal_width*

- For each species, find the average petal_ratio.

Q2. Start by loading the **TITANIC** dataset. [*Dataset Link:* [Titanic Dataset](#)]

A. Display only columns: *Name, Sex, Age, Fare, Survived*

B. Select passengers who:

- Are female
- Fare > 30

C. Group by *Pclass* and compute:

- Survival rate
- Average Fare
- Average Age