

# Pandas (Assignment Problems)

Let's do some practical exploration & analysis.

## Assignment Problems

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**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