

# Task 02 - Custom DataFrame

## Transformation

- This task demonstrates how to implement custom transformations in a pandas DataFrame using `apply` and `groupby`.

### Transformations Applied:

1. Created a new column  $\text{TotalPrice} = \text{Quantity} * \text{Price}$ .
2. Implemented custom function `discounted_revenue` using `apply` to calculate discounted revenue.
3. Generated  $\text{DiscountedRevenue} = \text{TotalPrice} * (1 - \text{Discount})$ .

### GroupBy Operation:

- Grouped the data by Quantity and calculated the average DiscountedRevenue.

### Observations:

- `apply()` is powerful for row-wise or column-wise custom calculations.
- `groupby()` efficiently summarizes data by categorical features.
- Combining `apply` and `groupby` enables flexible data analysis pipelines.