Real-time Scenario Based NumPy Questions

Finance / Sales Scenario

A company tracks its monthly revenue using a NumPy array:

revenue = np.array([20000, 22000, 21000, 25000, 24000])

Write a NumPy expression to calculate the average revenue of the company.

Healthcare Scenario

A hospital stores the temperature readings of a patient for 7 days:

temps = np.array([98.4, 98.6, 99.1, 100.2, 98.9, 99.5, 98.7])

Using NumPy, find the maximum and minimum temperatures recorded.

E-commerce Scenario

An e-commerce company stores the number of daily orders for a week:

orders = np.array([120, 150, 130, 160, 140, 180, 170])

Find the total orders received during the week using NumPy.

Education Scenario

A teacher stores students' scores in a NumPy array:

scores = np.array([45, 67, 89, 76, 55])

Using NumPy, find how many students scored more than 60.

Retail Billing Scenario

A retail shop stores item prices and quantities purchased:

prices = np.array([50, 20, 30])

quantities = np.array([2, 5, 3])

Find the total bill amount using NumPy.

Survey Analysis Scenario

A company collects feedback ratings from 10 users:

ratings = np.array([4, 3, 5, 4, 2, 5, 3, 4, 5, 1])

Using NumPy, count how many users gave a rating of 5.

Housing Data Scenario

You have house prices (in lakhs) of a locality:

house_prices = np.array([45, 50, 48, 52, 47])

Increase each price by 10 percent using NumPy and display the updated prices.

Sports Performance Scenario

A football player's goals in 5 matches:

goals = np.array([1, 0, 2, 1, 3])

Find the average number of goals per match using NumPy.

Car Mileage Tracking Scenario

A car tracks its mileage over 6 months (in km per litre):

mileage = np.array([15.2, 16.5, 14.8, 15.9, 16.2, 15.5])

Using NumPy, find the months where mileage was less than 15.

Invoice Discount Scenario

You have 3 invoice totals:

totals = np.array([2345, 1540, 1890])

Apply a 5 percent discount to each total using NumPy and print the new values.