PANDAS SERIES

1. Suppose you are a teacher, and you want to analyze the exam scores of your students in a particular subject. You have recorded the scores of your students for a recent exam, and you want to represent this data using a Pandas Series.

Input:

students = ['Alice', 'Bob', 'Charlie', 'David', 'Eve', 'Frank', 'Grace', 'Hannah', 'Ivy', 'Jack'] exam\_scores = [92, 88, 76, 94, 82, 90, 85, 89, 78, 91]

//code

import pandas as pd

# Data

students = ['Alice', 'Bob', 'Charlie', 'David', 'Eve', 'Frank', 'Grace', 'Hannah', 'Ivy', 'Jack']

exam\_scores = [92, 88, 76, 94, 82, 90, 85, 89, 78, 91]

# Creating a Pandas Series

scores\_series = pd.Series(data=exam\_scores, index=students)

# Displaying the Pandas Series

print(scores\_series)

output:

Alice 92

Bob 88

Charlie 76

David 94

Eve 82

Frank 90

Grace 85

Hannah 89

Ivy 78

Jack 91

dtype: int64

========================================================================

2. Suppose you want to track and analyze your household expenses for a month. You have recorded the expenses for various categories, such as groceries, utilities, rent, transportation, and entertainment. You can represent this expense data using a Pandas Series.

Input:

categories = ['Groceries', 'Utilities', 'Rent', 'Transportation', 'Entertainment']

#Monthly expense data (example data in USD)

expenses [500, 200, 1200, 300, 150]

//code

import pandas as pd

# Define the categories and expenses data

categories = ['Groceries', 'Utilities', 'Rent', 'Transportation', 'Entertainment']

expenses = [500, 200, 1200, 300, 150]

# Create a Pandas Series

expense\_series = pd.Series(expenses, index=categories)

# Display the Series

print(expense\_series)

output:

Groceries 500

Utilities 200

Rent 1200

Transportation 300

Entertainment 150

dtype: int64

======================================================================================