

numpy\_grades\_analysis.py

# NUMPY PROJECT - Student Grades Analysis

import numpy as np

# Generate random grades between 80-100 for 5 students and 5 subjects

grades = np.random.randint(80, 100, size=(5, 5))

print("Grades Matrix:")

print(grades)

print()

# Calculate maximum grades

student\_max = np.max(grades, axis=0)

subject\_max = np.max(grades, axis=1)

print("Student-wise Maximum:", student\_max)

print('Subject-wise Maximum:', subject\_max)

print()

# Calculate minimum grades

student\_min = np.min(grades, axis=0)

subject\_min = np.min(grades, axis=1)

print('Student-wise Minimum:', student\_min)

print('Subject-wise Minimum:', subject\_min)

print()

# Calculate average grades

student\_avg = np.mean(grades, axis=0)

subject\_avg = np.mean(grades, axis=1)

print('Student-wise Average:', student\_avg)

print('Subject-wise Average:', subject\_avg)