

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)
```