

EXPERIMENT-1

AIM:

To find the average score of each subject using NumPy and identify the subject with the highest average score.

ALGORITHM:

1. Create a 4×4 NumPy array for student scores.
2. Calculate the average of each column using `mean(axis=0)`.
3. Store the subjects in a list: Math, Science, English, History.
4. Find the subject with the maximum average using `argmax()`.
5. Display the averages and the subject with the highest average.

CODE (Python – NumPy):

```
import numpy as np

student_scores = np.array([
    [80, 75, 90, 85],
    [70, 85, 88, 80],
    [90, 95, 92, 88],
    [60, 70, 75, 78]
])

subjects = ["Math", "Science", "English", "History"]

avg_scores = student_scores.mean(axis=0)

highest_subject = subjects[np.argmax(avg_scores)]

print("Average Scores:", avg_scores)
print("Subject with Highest Average:", highest_subject)
```

INPUT

Matrix (student_scores):

80 75 90 85

70 85 88 80

90 95 92 88

60 70 75 78

OUTPUT

Average Scores: [75. 81.25 86.25 82.75]

Subject with Highest Average: English