

Lab-7 screenshots

Output-1:

Array after reshaping:

```
[[ 1  2  3  4  5]
 [ 6  7  8  9 10]
 [11 12 13 14 15]]
```

Elements at row 2: [11 12 13 14 15]

Elements at column 4: [5 10 15]

Elements at rows 0 and 1: [[1 2 3 4 5]
 [6 7 8 9 10]]

Elements at columns 2-4: [[3 4 5]
 [8 9 10]
 [13 14 15]]

Element at row 1 and column 4: 10

Elements at row 1 and 2 that are in column 0: [6 11]

Elements at row 1 and 2 that are in column 2: [8 13]

Elements at row 1 and 2 that are in column 4: [10 15]

Output-2:

```
[[ 15.    50.    50.    ... 207.    1442.    94.1868 ]
 [ 15.    50.    50.    ... 197.    1322.    86.34879]
 [ 15.    50.    50.    ... 210.    1510.    98.62834]
 ...
 [ 15.    50.    50.    ... 200.    1374.    89.74526]
 [ 15.    50.    50.    ... 195.    1287.    84.0627 ]
 [ 15.    50.    50.    ... 210.    1490.    97.32201]]
```

Number of students: 33

Number of rows: 33 Number of columns: 32

Array data type: float64

Descriptive statistics of students

Minimum score: 29.65382

Maximum score: 99.86936

Mean score: 87.66996787878789

Median score: 92.88047

Standard deviation: 15.553686425410683

25 Percentile : 87.1979

75 Percentile : 96.73416

Number of students achieved in each grade category

21 A

8 B

1 C

1 D

2 F

Student Performance Pie Chart

