In [4]:
```
#standard Deviation
# Variance

import numpy as np
data=np.array([46,89,76,56,88])
print("data Points:")
print(data)
print("Average is:",np.mean(data))
print("Standar Deviation is:",np.std(data))
print("Variance is:",np.var(data))
```

```
data Points:
[46 89 76 56 88]
Average is: 71.0
Standar Deviation is: 17.25108692227826
Variance is: 297.6
```

In [6]:
```
# Highest & Lowest Marks

import numpy as np
Marks_Python=np.array([46,89,76,56,88,33,96,48,91])

#Lowest Mark

print("Lowest Marks is:",np.min(Marks_Python))

# Highest Mark

print("Highest Marks is:",np.max(Marks_Python))
```

```
Lowest Marks is: 33
Highest Marks is: 96
```

In [9]:
```
import numpy as np
#Test score of students
Test_Scores=np.array([33,45,56,67,78,89,12,32,24,54,43,78,87,98,76,90,80,69,59])
median=np.percentile(Test_Scores,70)
print(median)
median1=np.median(Test_Scores)
print(median1)
```

```
78.0
67.0
```

In [10]:
```
import numpy as np
# To save array in text file
np.savetxt('Test_Scores.txt',Test_Scores)
print("Test Score saves successfully")
```

```
Test Score saves successfully
```

In [11]:
```
import numpy as np
#To save array in file
Marks_Python1=np.array([46,89,76,56,88,33,96,48,91])
np.save('Marks_Python1.npy',Marks_Python1)
#Load the scores from the file
```

```
Loaded_scores=np.load('Marks_Python1.npy')
print("Original score is:",Marks_Python1)
print("Loaded score is:",Loaded_scores)
```

```
Original score is: [46 89 76 56 88 33 96 48 91]
Loaded score is: [46 89 76 56 88 33 96 48 91]
```

In [1]:
```
import numpy as np
import pandas as pd

# Step 1: Create a NumPy array of sales data
sales = np.array([1200, 2500, 3100, 4500, 5200, 6100, 7200, 8000, 9100, 10200])

# Step 2: Calculate the sum of sales
total_sales = np.sum(sales)
print("Total Sales:", total_sales)

# Step 3: Save sales data as a CSV file
df = pd.DataFrame({"Sales": sales})
df.to_csv("sales_data.csv", index=False)

print("Sales data saved as 'sales_data.csv'")
```

```
Total Sales: 57100
Sales data saved as 'sales_data.csv'
```

In [ ]:

In [ ]: