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Assignment 06

```python
import pandas as pd
import numpy as np

# Ask user how many employees
n = int(input("Enter number of employees: "))

# Initialize empty lists
names = []
ages = []
salaries = []
departments = []

# Collect employee data
for i in range(n):
    print(f"\nEnter details for Employee {i+1}:")
    name = input("Name: ")
    age = int(input("Age: "))
    salary = float(input("Salary: "))
    department = input("Department: ")

    names.append(name)
    ages.append(age)
    salaries.append(salary)
    departments.append(department)

# Create DataFrame
data = {
    'Name': names,
    'Age': ages,
    'Salary': salaries,
    'Department': departments
}
df = pd.DataFrame(data)

# Display first and last two rows
print("\nFirst two rows of DataFrame:")
print(df.head(2))

print("\nLast two rows of DataFrame:")
print(df.tail(2))

# Salary statistics
print("\nSalary Statistics:")
print("Mean Salary:", df['Salary'].mean())
print("Standard Deviation of Salary:", df['Salary'].std())
```

```python
# Filter condition: Age > 30 and Department == 'IT'
filtered = df[(df['Age'] > 30) & (df['Department'].str.upper() ==
'IT')]

print("\nEmployees older than 30 and in IT department:")
print(filtered)

# Add Bonus column (10% of Salary)
df['Bonus'] = df['Salary'] * 0.10

print("\nDataFrame with Bonus column:")
print(df)
```

```
Enter number of employees:  3


Enter details for Employee 1:

Name:  John
Age:  25
Salary:  50000
Department:  Marketing


Enter details for Employee 2:

Name:  Carol
Age:  62
Salary:  80000
Department:  Marketing


Enter details for Employee 3:

Name:  David
Age:  80
Salary:  90000
Department:  IT


First two rows of DataFrame:
    Name  Age   Salary Department
0   John   25  50000.0  Marketing
1  Carol   62  80000.0  Marketing

Last two rows of DataFrame:
    Name  Age   Salary Department
1  Carol   62  80000.0  Marketing
2  David   80  90000.0         IT

Salary Statistics:
```

```
Mean Salary: 73333.33333333333
Standard Deviation of Salary: 20816.659994661328

Employees older than 30 and in IT department:
    Name  Age   Salary Department
2  David   80  90000.0         IT

DataFrame with Bonus column:
    Name  Age   Salary Department   Bonus
0   John   25  50000.0  Marketing  5000.0
1  Carol   62  80000.0  Marketing  8000.0
2  David   80  90000.0         IT  9000.0
```