

In [7]: `import numpy as np`

*# 1. Array of employees with salary and display those with salary less than 50000*

```
employees = np.array([
    ("Alice", 60000),
    ("Bob", 45000),
    ("Charlie", 55000),
    ("David", 35000)
], dtype=[('name', 'U10'), ('salary', int)])

employees_less_than_50000 = employees[employees['salary'] < 50000]
print("Employees with salary less than 50000:")
print(employees_less_than_50000)
```

Employees with salary less than 50000:  
[('Bob', 45000) ('David', 35000)]

In [6]: *# 2. Find days with extreme temperatures*

```
temperatures = np.array([32.5, 34.2, 36.8, 29.3, 31.0, 38.7, 23.1, 18.5, 22.8, 37.2])

hot_days = np.where(temperatures > 35)
cold_days = np.where(temperatures < 5)

print("Hot days (temperature > 35°C):", hot_days[0].tolist())
print("Cold days (temperature < 5°C):", cold_days[0].tolist())
```

Hot days (temperature > 35°C): [2, 5, 9]  
Cold days (temperature < 5°C): [10, 13, 14]

In [5]: *# 3. Split monthly sales data into quarterly reports*

```
monthly_sales = np.array([120, 135, 148, 165, 180, 155, 168, 190, 205, 198, 210, 225])

quarterly_sales = np.split(monthly_sales, 4)

print("Quarterly sales data:")
for i, quarter in enumerate(quarterly_sales):
    print(f"Quarter {i+1}: {quarter.tolist()}")
```

Quarterly sales data:  
Quarter 1: [120, 135, 148]  
Quarter 2: [165, 180, 155]  
Quarter 3: [168, 190, 205]  
Quarter 4: [198, 210, 225]

In [ ]: