

1. Sorting Sales Data:

Task: Given daily sales data [1200, 4500, 2300, 800, 3200], sort them in descending order.

```
sales_data = [1200, 4500, 2300, 800, 3200]
sorted_sales = sorted(sales_data, reverse=True)
print(sorted_sales)

[4500, 3200, 2300, 1200, 800]
```

1. Splitting Student Marks:

Task: Split the student marks [78, 65, 89, 90, 56, 80] into 3 equal groups.

```
student_marks = [78, 65, 89, 90, 56, 80]
group_size = len(student_marks) // 3 # Calculate the size of each group
groups = [student_marks[i:i + group_size] for i in range(0, len(student_marks), group_size)]
print(groups)

[[78, 65], [89, 90], [56, 80]]
```

1. Finding Best Performing Store:

Task: Find the index of the store with the highest sales from [25000, 32000, 40000, 28000].

```
store_sales = [25000, 32000, 40000, 28000]
best_store_index = store_sales.index(max(store_sales))
print(best_store_index)

2
```

1. Finding Worst Performing Store:

Task: Find the index of the store with the lowest sales from [25000, 32000, 40000, 28000].

```
store_sales = [25000, 32000, 40000, 28000]
worst_store_index = store_sales.index(min(store_sales))
print(worst_store_index)

0
```

1. Finding Insertion Index in Sorted Data:

Task: Given a sorted price list [10, 20, 30, 50], find the position to insert a new price 25.

```
import bisect

price_list = [10, 20, 30, 50]
```

```
new_price = 25
insertion_index = bisect.bisect_left(price_list, new_price)
print(insertion_index)

2
```

1. Filtering High Temperatures:

Task: Identify days with temperatures above 35°C from [30, 36, 40, 28, 37].

```
temperatures = [30, 36, 40, 28, 37]
high_temperatures = [temp for temp in temperatures if temp > 35]
print(high_temperatures)

[36, 40, 37]
```

1. Extracting High Salary Employees:

Task: Extract salaries above ₹50,000 from [40000, 55000, 62000, 48000].

```
salaries = [40000, 55000, 62000, 48000]
high_salaries = [salary for salary in salaries if salary > 50000]
print(high_salaries)

[55000, 62000]
```

8. Generate a 5×5 NumPy array with values from 1 to 25.

```
import numpy as np

array_5x5 = np.arange(1, 26).reshape(5, 5)
print(array_5x5)

[[ 1  2  3  4  5]
 [ 6  7  8  9 10]
 [11 12 13 14 15]
 [16 17 18 19 20]
 [21 22 23 24 25]]
```