

```
1 class HardDrive:
2     def __init__(self, hard_drive_id, capacity, computer_id):
3         self.hard_drive_id = hard_drive_id
4         self.capacity = capacity
5         self.computer_id = computer_id
6
7 class Computer:
8     def __init__(self, computer_id, model):
9         self.computer_id = computer_id
10        self.model = model
11
12 class ComputerHardDrives:
13     def __init__(self, hard_drive_id, computer_id):
14         self.hard_drive_id = hard_drive_id
15         self.computer_id = computer_id
16
17 hard_drives = [
18     HardDrive(1, 500, 1),
19     HardDrive(2, 1000, 1),
20     HardDrive(3, 250, 2),
21     HardDrive(4, 750, 3),
22 ]
23
24 computers = [
25     Computer(1, "Lenovo Computer"),
26     Computer(2, "HP"),
27     Computer(3, "Dell Computer"),
28 ]
29
30 relations = [
31     ComputerHardDrives(1, 1),
32     ComputerHardDrives(2, 1),
33     ComputerHardDrives(3, 2),
34     ComputerHardDrives(4, 3),
35 ]
36
```

```
36 print("List of hard drives and their corresponding computers:")
37 for computer in sorted(computers, key=lambda x: x.model):
38     drives_for_computer = [drive for drive in hard_drives if drive.computer_id == computer.computer_id]
39     print(f"Computer: {computer.model}")
40     for drive in drives_for_computer:
41         print(f"  Hard Drive (Capacity): {drive.capacity} GB")
42
43
44 print("\nList of computers with total hard drive capacity:")
45 total_capacities = {}
46 for computer in computers:
47     total_capacity = sum(drive.capacity for drive in hard_drives if drive.computer_id == computer.computer_id)
48     total_capacities[computer.model] = total_capacity
49
50 for computer, capacity in sorted(total_capacities.items(), key=lambda item: item[1], reverse=True):
51     print(f"Computer: {computer}, Total Capacity: {capacity} GB")
52
53 print("\nComputers with 'computer' in their model name and their hard drives:")
54 for computer in computers:
55     if "computer" in computer.model.lower():
56         drives_for_computer = [drive for drive in hard_drives if drive.computer_id == computer.computer_id]
57         print(f"Computer: {computer.model}")
58         for drive in drives_for_computer:
59             print(f"  Hard Drive (Capacity): {drive.capacity} GB")
60
```

```
PS E:\Courses\BAUMAN\sem3\ПикЯП\ПК 1> & C:/Users/Zalman/AppData/Local/Programs/Python/Python312/python.exe "e:/Courses/BAUMAN/sem3/ПикЯП/ПК 1/main.py"
```

```
List of hard drives and their corresponding computers:
```

```
Computer: Dell Computer
```

```
    Hard Drive (Capacity): 750 GB
```

```
Computer: HP
```

```
    Hard Drive (Capacity): 250 GB
```

```
Computer: Lenovo Computer
```

```
    Hard Drive (Capacity): 500 GB
```

```
    Hard Drive (Capacity): 1000 GB
```

```
List of computers with total hard drive capacity:
```

```
Computer: Lenovo Computer, Total Capacity: 1500 GB
```

```
Computer: Dell Computer, Total Capacity: 750 GB
```

```
Computer: HP, Total Capacity: 250 GB
```

```
Computers with 'computer' in their model name and their hard drives:
```

```
Computer: Lenovo Computer
```

```
    Hard Drive (Capacity): 500 GB
```

```
    Hard Drive (Capacity): 1000 GB
```

```
Computer: Dell Computer
```

```
    Hard Drive (Capacity): 750 GB
```

```
PS E:\Courses\BAUMAN\sem3\ПикЯП\ПК 1> █
```