```javascript
1   // 🔄 Clear Console
2
3   console.clear();
4
5   // 👥 Array of Objects: Users Data
6
7   const users = [
8
9       {
10          id: 1,
11          name: "Ajay Suneja",
12          isActive: true,
13          age: 31,
14          designation: "Front End Developer",
15      },
16
17      {
18          id: 2,
19          name: "Manohar Batra",
20          isActive: true,
21          age: 36,
22          designation: "Solution Architect",
23      },
24
25      {
26          id: 3,
27          name: "Dimple Kumari",
28          isActive: true,
29          age: 26,
30          designation: "Software Engineer",
31      },
32
33      {
34          id: 4,
35          name: "Anshika Gupta",
36          isActive: false,
37          age: 25,
```

```
38          designation: "Back End Developer",
39      },
40  ];
41
42  /*
43
44  ================================
45
46  💡 Use Case 1: Get Array of Names
47
48  ================================
49
50  */
51
52  // ✅ Method 1: Using for loop
53
54  const namesUsingForLoop = [];
55
56  for (let i = 0; i < users.length; i++) {
57
58      namesUsingForLoop.push(users[i].name);
59  }
60
61  console.log("📄 Names using for loop:", namesUsingForLoop);
62
63  // ✅ Method 2: Using map()
64
65  const namesUsingMap = users.map((user) => user.name);
66
67  console.log("📄 Names using map():", namesUsingMap);
68
69  /*
70
71  ====================================
72
73  💡 Use Case 2: Get Only Active Users
74
75  ====================================
```

```
76
77   */
78
79   // ✅ Method 1: Using forEach()
80
81   const activeUsersUsingForEach = [];
82
83   users.forEach((user) => {
84
85       if (user.isActive) {
86
87           activeUsersUsingForEach.push(user.name);
88       }
89   });
90
91   console.log("✅ Active users (forEach):", activeUsersUsingForEach);
92
93   // ✅ Method 2: Using filter()
94
95   const activeUsersUsingFilter = users.filter((user) => user.isActive);
96
97   console.log("✅ Active users (filter):", activeUsersUsingFilter);
98
99   /*
100
101  ===========================================
102
103  💡 Use Case 3: Sort Users by Age (Descending)
104
105  ===========================================
106
107  */
108
109  // 📌 Chaining: filter() + sort() + map()
110
111  const sortedActiveUsers = users
112
113      .filter((user) => user.isActive)
```

```
114
115        .sort((a, b) => b.age - a.age)
116
117        .map((user) => user);
118
119   console.log("⬇️ Sorted Active Users (by age):", sortedActiveUsers);
```