

✓ CASE STUDY 4: TO DO LIST

```
tasks = {} # {id: {"task": "desc", "done": False}}
next_id = 1

while True:
    print("\nTo-Do List:")
    print("1. Add, 2. View, 3. Delete, 4. Done, 5. Exit")

    choice = input("Choice: ")

    if choice == "1":
        desc = input("Task: ")
        tasks[next_id] = {"task": desc, "done": False}
        print(f"Added: '{desc}' (ID: {next_id})")
        next_id += 1

    elif choice == "2":
        if not tasks:
            print("Empty.")
        else:
            for id, data in tasks.items():
                print(f"{id}. {'[X]' if data['done'] else '[ ]'} {data['task']}")

    elif choice == "3":
        if not tasks:
            print("Empty.")
        else:
            try:
                id_to_del = int(input("ID: "))
                if id_to_del in tasks:
                    print(f"Deleted: '{tasks.pop(id_to_del)['task']}'")
                else:
                    print("Not found.")
            except ValueError:
                print("Invalid ID.")

    elif choice == "4":
        if not tasks:
            print("Empty.")
        else:
            try:
                id_to_mark = int(input("ID: "))
                if id_to_mark in tasks:
                    tasks[id_to_mark]["done"] = True
                    print(f"Done: {tasks[id_to_mark]['task']}")
                else:
                    print("Not found.")
            except ValueError:
                print("Invalid ID.")

    elif choice == "5":
        print("Bye!")
        break

    else:
        print("Invalid.")
```



```
To-Do List:
1. Add, 2. View, 3. Delete, 4. Done, 5. Exit
Choice: 1
Task: Wash clothes
Added: 'Wash clothes' (ID: 1)

To-Do List:
1. Add, 2. View, 3. Delete, 4. Done, 5. Exit
Choice: 1
Task: take copy back
Added: 'take copy back' (ID: 2)

To-Do List:
1. Add, 2. View, 3. Delete, 4. Done, 5. Exit
Choice: 2
1. [ ] Wash clothes
2. [ ] take copy back

To-Do List:
1. Add, 2. View, 3. Delete, 4. Done, 5. Exit
Choice: 1
Task: wash dishes
```

Added: 'wash dishes' (ID: 3)

To-Do List:

1. Add, 2. View, 3. Delete, 4. Done, 5. Exit

Choice: 4

ID: 2

Done: take copy back

To-Do List:

1. Add, 2. View, 3. Delete, 4. Done, 5. Exit

Choice: 2

1. ☐ Wash clothes

2. ☒ take copy back

3. ☐ wash dishes

To-Do List:

1. Add, 2. View, 3. Delete, 4. Done, 5. Exit

Choice: 3

ID: 2

Deleted: 'take copy back'

To-Do List:

1. Add, 2. View, 3. Delete, 4. Done, 5. Exit

Choice: 2

1. ☐ Wash clothes

3. ☐ wash dishes

To-Do List:

1. Add, 2. View, 3. Delete, 4. Done, 5. Exit

Choice: 5

Bye!