

Todo.py

```
1 import json
2
3 def load_todos(filepath="todos.json"):
4     """Loads to-do list from JSON file."""
5     try:
6         with open(filepath, "r") as f:
7             return json.load(f)
8     except FileNotFoundError:
9         return []
10    except json.JSONDecodeError:
11        print("Error reading the todo file. Starting with an empty list.")
12        return []
13
14 def save_todos(todos, filepath="todos.json"):
15     """Saves to-do list to JSON file."""
16     try:
17         with open(filepath, "w") as f:
18             json.dump(todos, f)
19     except IOError:
20        print("Error saving the todo file.")
21
22 def add_todo(todos):
23     """Adds new to-do items, up to a maximum of 8."""
24     count = 0
25     while count < 20:
26         description = input("Enter to-do description (or type 'done' to finish): ")
27         if description.lower() == 'done':
28             break
29         todos.append({"description": description, "completed": False})
30         count += 1
31         print("To-do added!")
32
33     if count == 8:
34        print("Maximum of to-dos reached. Returning to the main menu.")
35
36 def list_todos(todos):
37     """Lists all to-do items."""
38     if not todos:
39        print("No to-dos yet!")
40        return
41
42     for index, todo in enumerate(todos):
43         prefix = "[x]" if todo["completed"] else "[ ]"
44         print(f"{index + 1}. {prefix} {todo['description']}")
45
46 def mark_complete(todos):
47     """Marks a to-do item as complete."""
48     try:
49         index = int(input("Enter to-do index to mark complete: ")) - 1
50         if 0 <= index < len(todos):
51             todos[index]["completed"] = True
```

```
52         print("To-do marked complete!")
53     else:
54         print("Invalid index!")
55 except ValueError:
56     print("Please enter a valid number.")
57
58 def remove_todo(todos):
59     """Removes a to-do item."""
60     try:
61         index = int(input("Enter to-do index to remove: ")) - 1
62         if 0 <= index < len(todos):
63             del todos[index]
64             print("To-do removed!")
65         else:
66             print("Invalid index!")
67     except ValueError:
68         print("Please enter a valid number.")
69
70 if __name__ == "__main__":
71     todos = load_todos()
72
73     while True:
74         print("\nChoose an action:")
75         print("1. Add to-do")
76         print("2. List to-dos")
77         print("3. Mark complete")
78         print("4. Remove to-do")
79         print("5. Exit")
80
81         choice = input("> ")
82
83         if choice == "1":
84             add_todo(todos)
85         elif choice == "2":
86             list_todos(todos)
87         elif choice == "3":
88             mark_complete(todos)
89         elif choice == "4":
90             remove_todo(todos)
91         elif choice == "5":
92             break
93         else:
94             print("Invalid choice!")
95
96     save_todos(todos)
97
```

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 1

Enter to-do description (or type 'done' to finish): Wake-up in the morning.

To-do added!

Enter to-do description (or type 'done' to finish): Do some yoga.

To-do added!

Enter to-do description (or type 'done' to finish): Do your daily routine.

To-do added!

Enter to-do description (or type 'done' to finish): Go to study.

To-do added!

Enter to-do description (or type 'done' to finish): Play some outdoor games in the evening.

To-do added!

Enter to-do description (or type 'done' to finish): Do your home-works.

To-do added!

Enter to-do description (or type 'done' to finish): Eat your dinner and go to sleep.

To-do added!

Enter to-do description (or type 'done' to finish): done

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 2

1. [] Wake-up in the morning.

2. [] Do some yoga.

3. [] Do your daily routine.

4. [] Go to study.

5. [] Play some outdoor games in the evening.

6. [] Do your home-works.

7. [] Eat your dinner and go to sleep.

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 3

Enter to-do index to mark complete: 1

To-do marked complete!

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 3

Enter to-do index to mark complete: 2

To-do marked complete!

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 2

1. ☒ Wake-up in the morning.
2. ☒ Do some yoga.
3. ☐ Do your daily routine.
4. ☐ Go to study.
5. ☐ Play some outdoor games in the evening.
6. ☐ Do your home-works.
7. ☐ Eat your dinner and go to sleep.

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 4

Enter to-do index to remove: 1

To-do removed!

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 2

1. [☒] Do some yoga.
2. [☐] Do your daily routine.
3. [☐] Go to study.
4. [☐] Play some outdoor games in the evening.
5. [☐] Do your home-works.
6. [☐] Eat your dinner and go to sleep.

Choose an action:

1. Add to-do
2. List to-dos
3. Mark complete
4. Remove to-do
5. Exit

> 5

PS C:\Users\ayusm\OneDrive\Desktop\Internship projects\Vault of codes\Python mini project>