***To do List App***

***Coding:***

def display\_menu():

print("\n--- To-Do List Menu ---")

print("1. View To-Do List")

print("2. Add Task")

print("3. Mark Task as Completed")

print("4. Delete Task")

print("5. Exit")

def show\_tasks(todo\_list):

if not todo\_list:

print("Your to-do list is empty.")

else:

print("\nYour To-Do List:")

for i, (task, completed) in enumerate(todo\_list, start=1):

status = "✓" if completed else "✗"

print(f"{i}. [{status}] {task}")

def add\_task(todo\_list):

task = input("Enter the task to add: ")

todo\_list.append((task.strip(), False))

print(f"Task '{task}' added.")

def complete\_task(todo\_list):

show\_tasks(todo\_list)

try:

task\_num = int(input("Enter the task number to mark as completed: "))

if 1 <= task\_num <= len(todo\_list):

task, \_ = todo\_list[task\_num - 1]

todo\_list[task\_num - 1] = (task, True)

print(f"Task '{task}' marked as completed.")

else:

print("Invalid task number.")

except ValueError:

print("Please enter a valid number.")

def delete\_task(todo\_list):

show\_tasks(todo\_list)

try:

task\_num = int(input("Enter the task number to delete: "))

if 1 <= task\_num <= len(todo\_list):

task, \_ = todo\_list.pop(task\_num - 1)

print(f"Task '{task}' deleted.")

else:

print("Invalid task number.")

except ValueError:

print("Please enter a valid number.")

def parse\_initial\_tasks(input\_string):

tasks = [item.strip() for item in input\_string.split(',') if item.strip()]

todo\_list = []

for item in tasks:

if ':' in item:

task, status = item.rsplit(':', 1)

completed = status.strip().lower() == 'true'

todo\_list.append((task.strip(), completed))

else:

todo\_list.append((item.strip(), False))

return todo\_list

def main():

print("Enter your initial to-do list.")

print("Format: task1:true, task2:false, task3 (defaults to false)")

initial\_input = input("Tasks: ")

todo\_list = parse\_initial\_tasks(initial\_input)

while True:

display\_menu()

choice = input("Choose an option (1-5): ")

if choice == '1':

show\_tasks(todo\_list)

elif choice == '2':

add\_task(todo\_list)

elif choice == '3':

complete\_task(todo\_list)

elif choice == '4':

delete\_task(todo\_list)

elif choice == '5':

print("Goodbye!")

break

else:

print("Invalid choice. Please choose between 1 and 5.")

if \_\_name\_\_ == "\_\_main\_\_":

main()

***Explanation***:

This Python program is a simple \*\*console-based To-Do List app\*\* that allows users to manage tasks. When the program starts, it asks the user to enter initial tasks in a format like `task1:true, task2:false`. Each task can be marked as \*\*completed\*\* (`true`) or \*\*incomplete\*\* (`false`), and if no status is provided, it defaults to incomplete.

The core features are:

1. \*\*Viewing tasks\*\* with status indicators (✓ for done, ✗ for not done).

2. \*\*Adding new tasks\*\*, which are always added as incomplete.

3. \*\*Marking tasks as completed\*\* by selecting a task number.

4. \*\*Deleting tasks\*\* from the list.

5. A looped \*\*menu system\*\* for ongoing interaction until the user exits.

Tasks are stored as a list of tuples: `(task\_description, completion\_status)`. The `parse\_initial\_tasks()` function processes the initial input and ensures proper handling of the format.