Programming Project / C++

-Todo List Management & Interaction System

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I. Task Description

Student 1 (List Manager) is responsible for:

Creating new todo lists (create_list)

Deleting existing lists (delete_list)

Viewing all available lists (view_lists)

Student 2 (Task Editor) is responsible for:

Adding tasks to lists (add task)

Marking tasks as complete (complete_task)

Viewing tasks in a list (view_tasks)

II. Classes Used by the Team

The following classes will be used:

- 1. Task: int id, string task description, bool completion status,
- 2. TodoList: string name, vector<Task> collection, date Date
- 3 Date: int day, int month, int year

III. File Structure

The following files will be used:

```
1. index.txt
Stores all list names in the format:
<listname1>
<listname2>
Homework
Groceries
Shopping
2. lists/[list_name].txt
Stores tasks for each list in the format:
<date>
<id> - [<completion>] <taskname>
ex
21.11.2025
1 - [] Math problems
2 - [x] Buy milk
3 - [] Science report
```

IV. Interacting with Executables

```
Application 1 (manager.exe) - List Management
```

```
./manager.exe create_list <list_name> <date> <task1> <task2> <task3> ./manager.exe delete_list <list_name> ./manager.exe view_lists
```

Example:

./manager.exe create_list Shopping 21.05.2025, creates the list shopping meaning a file named Shopping.txt is created and added in index.txt as Shopping with the <date> in the first line and then the tasks

./manager.exe delete_list Homework, deletes the list Homework, meaning the deletion of the file Homework and removing Homework from index.txt

./manager.exe view_lists , shows all lists meaning opening index.txt and printing all the listnames inside

```
Application 2 (editor.exe) - Task Interaction
```

./editor.exe add_task <list_name> "<task_description>"
./editor.exe complete_task <list_name> <task_id>
./editor.exe view_tasks <list_name>

Example:

./editor.exe add_task Shopping "Eggs", adds the task Eggs to the list

This makes the list "Shopping" look like

1-[] Eggs

./editor.exe complete_task Shopping 1

This updates the list to

1 - [x] Eggs

./editor.exe view tasks Shopping to view the tasks in the list