

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. Data Structures 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
```