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Green University of Bangladesh
Department of Computer Science and Engineering (CSE)
Faculty of Sciences and Engineering
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PROJECT REPORT
Course Title: Structured Programming
Course Code: CSE-104 Section: PC-DA

Lab Project Name: Task Manager Command Line Application

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[For Teachers use only: Don't Write Anything inside this box]

Lab Project Status

Marks: …… **Signature: .....**

Comments: ..... **Date: .....**

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Chapter 1

Introduction

1.1 Introduction

We are human, so we forget things. We need to take notes to keep track of our tasks. A task manager can ensure each task completes within the given timeline. As programmers, we spend a lot of time on the terminal or command line, so a command-line task manager application will help us manage our tasks without leaving the terminal.

1.2 Design Goals/Objective

With the task manager application, we will be able to do the following things:

1. Create tasks
2. Remove tasks
3. Search tasks
4. List all tasks

Chapter 2

2.1 Task Manager Command Line Application

Here are the interfaces of our application.

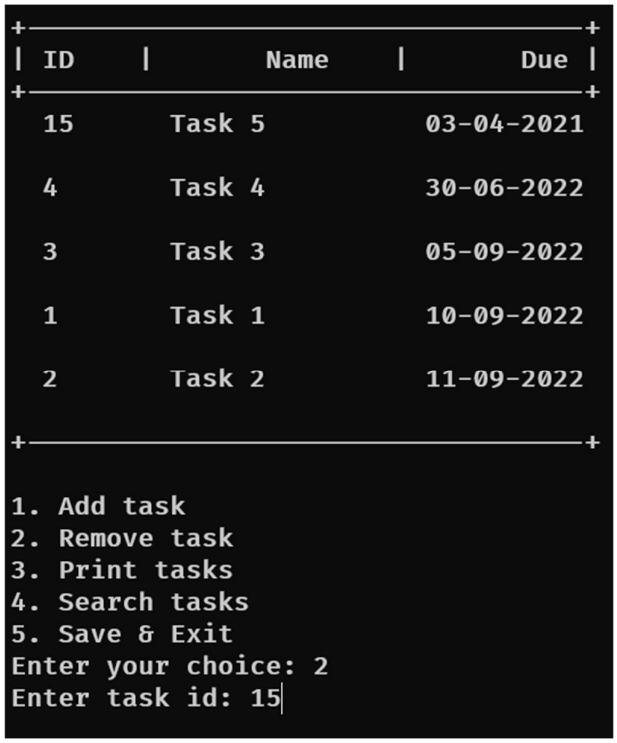
2.1.1 Main Menu

```
opu@opu:~/works/Project$ gcc task.h task.c -o task && ./task
1. Add task
2. Remove task
3. Print tasks
4. Search tasks
5. Save & Exit
Enter your choice:
```

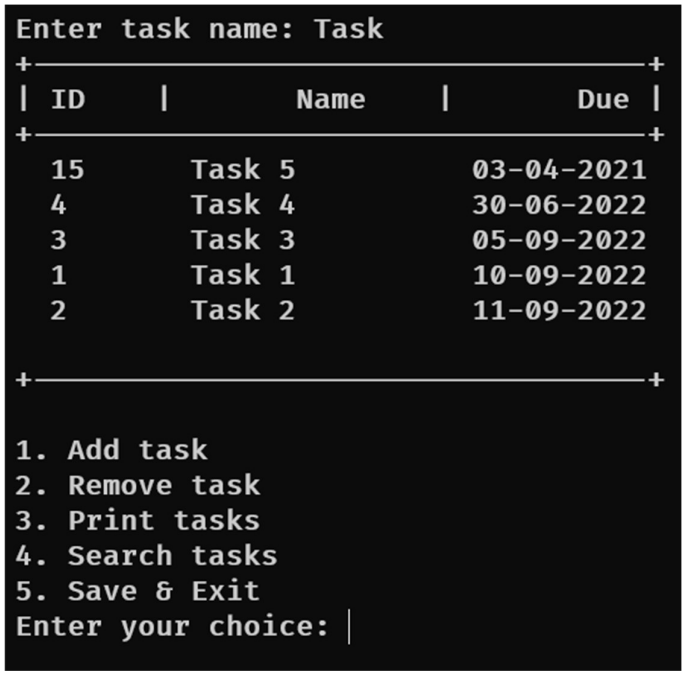
2.1.2 Add Task

```
opu@opu:~/works/Project$ gcc task.h task.c -o task && ./task
1. Add task
2. Remove task
3. Print tasks
4. Search tasks
5. Save & Exit
Enter your choice: 1
Enter task name: Task 1
Enter task due date [dd-mm-yyyy]: 22-09-2022
```

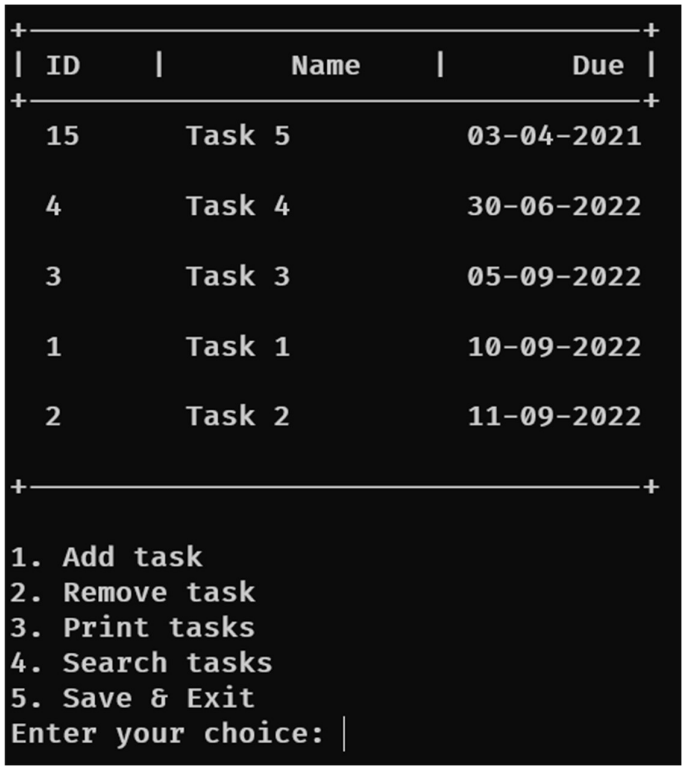
2.1.3 Remove Task



2.1.4 Search Task



2.1.5 List Tasks



2.2 Implementation of the Project:

2.2.1 The project is based on a singly linked list where each node has a data field which is another structure where we can store a name and due date.

2.2.2 While printing task the linked list is sorted using the bubble sort algorithm according to the due date.

2.2.3 The search tasks option is a linear search which matches the name of the task and it is case sensitive.

2.2.4 While existing the app with option 5, all the nodes in linked list is saved in a file where each line represents a node and each tab(\t) separates each property of the task structure.

Chapter 3

Performance Evaluation

3.1 Results and Discussions

3.1.1 Analysis and Outcome

The application is very fast, and can handle large number data using as little memory as possible

Chapter 4

Conclusion

4.1 Practical Implications

The task manager application is very useful to organize our tasks and maintain our times properly.

4.2 Scope of Future Work

This application has a known bug, saving the tasks in a file sometimes save multiple nodes on same line, we can fix it in future updates.