Mid-Stage Report

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Task Management System

1-Introduction

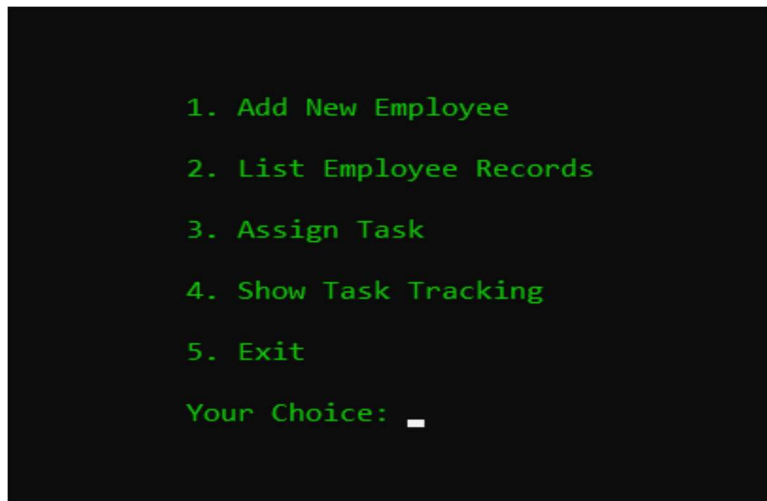This project is mainly framed around 4 main topics.

Figure.1

Mainly any team leader or manager using this system will be able to add a new employee to their record and assign tasks. The most important feature of the system is that everyone can see which person is performing which task and, what is the expected deadline, what is the priority level if anybody has more than one task to complete. The team manager will assign tasks and add a new employee to the system. Whoever is responsible for managing the team will be allowed to ask for all the features offered by the program. On the other hand, employees will be allowed to access only the Show Task Tracking page to check the status of the tasks, deadlines, etc.

2-Add New Employee

This section will allow the manager to add a new team member to the system. The person's name, last name, and title will be entered as input. With these inputs, the Employee object will be created with the help of the Employee class variables and member functions. Employee class members are:

Variables:

- *string name;*
- *string lastname;*
- *string title;*

Functions:

- *Employee();*
- *void setName(string n);*

- *string getName();*
- *void setLastname(string l);*
- *string getLastname();*
- *void setTitle(string t);*
- *string getTitle() ;*
- *friend ostream& operator<<(ostream& ostr, Employee a);*

After the team leader enters the necessary inputs, our code helps us to save these inputs in a file called EMPLOYEE.txt. In the following sections, we will draw this information to use in other cases.

3-List Employee Records

This section shows the employees the system with their titles. It allows us to check who the project team members are and what their specialties are. If desired, the system allows the user to go back to the main menu by pressing the ESC button on the keyboard.

Figure.2

4-Assign Task

This menu is where managers come to assign a task to team members. As we can see, we have five people on the team, so the manager needs to pick from the list and answer the following questions. One of the essential parts of this section is that the program automatically takes the local date when assignments are assigned, calculates the deadline automatically with the entered number of days, and shows the exact expected deadline in the **Show Task Tracking** section. At the end of the questions, the system asks the user whether the person wants to assign more tasks. If the answer is yes, the system loops through the same process; if the answer is no, it will go back to the main menu. This process can be seen In Fig.3.

Figure.3

Assign Task page, reads the employee records from EMPLOYEE.txt file and with the answered questions initializes the Project object. With the member functions of the Project class, object values and calculations are written to the TASK.txt file. Member variables and functions of the project class are:

Variables:

- *Employee person;*
- *int priority;*
- *int status;*
- *string task;*
- *int deadline;*

Functions:

- *Project();*
- *Project(Employee a,string t, int p, int s,int dl);*
- *void assingTask(Employee p,string t, int pri,int s,int dl);*
- *void DatePlusDays(struct tm* date, int days);*
- *string Deadline(int days);*
- *friend ostream& operator<<(ostream& ostr, Project team);*

5-Show Task Tracking

This section shows the priority level, status, deadline, and task description. The priority level is between 0-5. Status shows the percentage. If the percentage is under 100% program automatically says on the chart that it is in progress. If the percentage is 100%, it will show as completed. As mentioned previously, the deadline must be entered as the number of days. The program will automatically take the local time, add the number of days on top of it, and show the deadline as day and date, as shown below in Figure 4.

```
Name        LastName      Priority   Status            Deadline          Task
=====================================================================================
Okan        Celik         5          100% Completed    Sat Nov 19 2022   App Development
Chris       Evans         5          30% InProgress    Thu Dec 01 2022   Algoritma Optimization

Please Enter ESC to go back to Main Menu
```

Figure.4

6-Flow Chart

The general frame of the flow chart is shown below. The main menu pops up when the program starts and asks the user to enter an input. The user picks one of the given options in the menu; if the user wants to return to the main menu, there are directions in the code that make the user go back to the main menu such as pressing the ESC button or answering question as No.
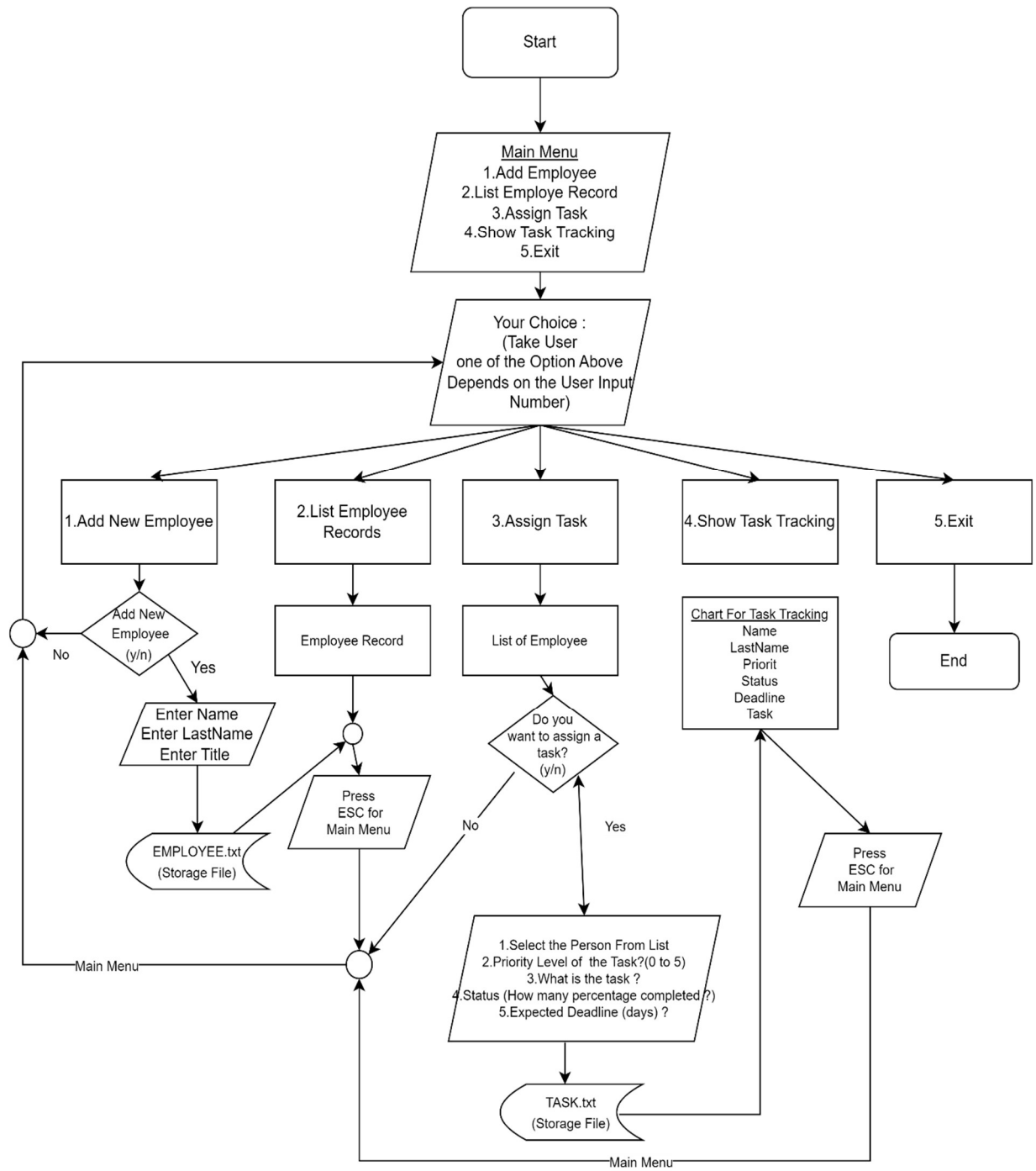
Fig.5