GUERRERO, PATRICIA LOUISE AMI

PORCINCULA, IVAN DANIEL C.

**GROUP 2 TO-DO LIST TRACKER**

# Introduction:

As our country fully shifted to online classes, everyone has been adjusting with their time schedule, tasks to accomplish and anything related to online classes. Everyone needs something like planner so they can keep track of the deadlines for each activity they need to submit and accomplish. The program aims to help the students to keep track of the things of they need to accomplish at a specified time.

# Program Walkthrough

Once the user starts the application, at the start-up menu, they will be asked to choose a choice whether to create a new account or login with an existing account. If the user chooses to a create new account, they will be prompted to input a username and a password of their own.

Afterwards, they will be directed to the second menu of the program and choose from four choices: whether to add the tasks to do, update their list of tasks if they finished a task, list all of the tasks they need to do, list all the tasks they have accomplished or exit. Under the choice of adding tasks to do, they will be prompted to name the task they need to accomplish and the deadline when it needs to accomplished specifically they will enter the month, day, year, hour, minutes and seconds (except 60 minute and 60 second), the user can add tasks as many as they can. Under the updating of lists if a user finishes a task, the user will need to enter the EXACT name of the task they added to be updated. Under the listing of all tasks that needs to be done, the program will simply display all the tasks which needs to be done with their specific time and date. Under the listing of all tasks they have accomplished, the program will just simply display the list of all the tasks that has been done with the specific time and date they got accomplished. All this information will be stored in a database.

For the updating of list of tasks, if the user chooses that option, it will be removed from the list of tasks which needs to be done and will be added to the tasks accomplished with the specific time and date they got accomplished. It will also be removed from the database. The database file will be overwritten by the new update.

**Features:**

1) Each task has a category

2) Each task is assignable with a priority

3) The program can sort according to date & time, category, or priority.

4) The program also gives a suggested sequence list of things to do based on the deadlines and priority

Menu:

[1] Create a new account

[2] Login with an existing account:

    [1] Add new tasks to do

        [1] Home

            [1] High Priority

            [2] Medium Priority

            [3] Low Priority

        [2] Education

            [1] High Priority

            [2] Medium Priority

            [3] Low Priority

        [3] Game plan

            [1] High Priority

            [2] Medium Priority

            [3] Low Priority

        [4] Meeting

            [1] High Priority

            [2] Medium Priority

            [3] Low Priority

        [5] Back

    [2] Update finished tasks

    [3] List of all the tasks needed to accomplish

        [1] Sort according to Date & Time

        [2] Sort according to Priority

        [3] Sort according to Category

        [4] Suggested order on accomplish tasks

    [4] List all accomplished tasks

    [5] LOGOUT

[3] Exit

**Classes:**

- Tasks

- ➢ Methods:
  - - getDelimitedItem – returns the string from the file reading
  - - removeAll – removes the finished task from database
  - - addHigh – adds the high priority tasks
  - - addMed – adds the medium priority tasks
  - - addLow – adds the low priority tasks
  - - storeTimeAndDate – stores the time and date from database after the program reads the database file and displays the tasks according to time and date in ascending order
  - - highPrioritySort – reads the database file sorted according to high priority
  - - sortTimeAndDateHigh – sorts and displays the tasks according to high priority and time and date in ascending order
  - - medPrioritySort – reads the database file sorted according to medium priority
  - - sortTimeAndDateMedium – sorts and displays the tasks according to medium priority and time and date in ascending order
  - - lowPrioritySort – reads the database file sorted according to low priority
  - - sortTimeAndDateLow – sorts and displays the tasks according to low priority and time and date in ascending order
  - - displayTaskPriority – displays the tasks according to high, medium, low priority only
  - - taskRemoval – removes the accomplished task
  - - displayAccomplished – displays the list of accomplished tasks

- • Home
  - ➢ Methods:
    - - addHigh – adds the high priority tasks
    - - addMed – adds the medium priority tasks
    - - addLow – adds the low priority tasks
    - - categorySorted – sorts the tasks according to category
    - - displayCategory – displays to the program according to category

- • Education
  - ➢ Methods:
    - - addHigh – adds the high priority tasks
    - - addMed – adds the medium priority tasks
    - - addLow – adds the low priority tasks
    - - categorySorted – sorts the tasks according to category
    - - displayCategory – displays to the program according to category

- • Games

- ➢ Methods:
  - addHigh – adds the high priority tasks
  - addMed – adds the medium priority tasks
  - addLow – adds the low priority tasks
  - categorySorted – sorts the tasks according to category
  - displayCategory – displays to the program according to category

- • Meeting
  - ➢ Methods:
    - addHigh – adds the high priority tasks
    - addMed – adds the medium priority tasks
    - addLow – adds the low priority tasks
    - categorySorted – sorts the tasks according to category
    - displayCategory – displays to the program according to category

- • Account
  - ➢ Methods:
    - getDelimitedItem – returns the string from file reading
    - createAccount – creates an account for the user and stores it in the database
    - loginAccount – asks the user to login from an existing account

- • AllMenu
  - ➢ Attributes:
    - accDb ( object Account)
  - ➢ Methods:
    - Menu_1 – displays the main menu
    - Menu_2 – displays the 2nd menu
    - Menu_3 – displays the 3rd menu
    - Menu_4 – displays the 4th menu for Home, Education, Games, Meeting
    - Menu_5 – displays the 5$^{th}$ menu

**Structures:**

- • accountInfo – contains variables which stores account information
- • accountDatabases – initializes accountInfo as 1D array and counter variables

**Functions:**

- • promptWelcome – display welcome prompt

**to.do.list.project**

**Main**
- main() : int
- promptWelcome() : void

**AllMenu**
- Menu_1(*ad : accountDatabases) : void
- Menu_2(*ad : accountDatabases) : void
- Menu_3(*ad : accountDatabases) : void
- Menu_4(*ad : accountDatabases, task : Tasks) : void
- Menu_5(*ad : accountDatabases) : void

**accountDatabases**
- count : int
- count1 : int
- count2[] : int
- count3[] : int
- count4[] : int

**Account**
- getDelimitedItem(s[] : char, d : char, *fp : FILE) : void
- createAccount(*ad : accountDatabases) : void
- loginAccount(*ad : accountDatabases) : void

**Tasks**
- getDelimitedItem(s[] : char, d : char, *fp : FILE) : virtual int
- removeAll(*str : char, *toRemove : const char) : void
- addHigh(*ad : accountDatabases) : virtual void
- addMed(*ad : accountDatabases) : virtual void
- addLow(*ad : accountDatabases) : virtual void
- storeTimeAndDate(*ad : accountDatabases) : void
- highPrioritySort(*ad : accountDatabases) : void
- sortTimeAndDateHigh(*ad : accountDatabases) : void
- medPrioritySort(*ad : accountDatabases) : void
- sortTimeAndDateMedium(*ad : accountDatabases) : void
- lowPrioritySort(*ad : accountDatabases) : void
- displayTaskPriority(*ad : accountDatabases) : void
- taskRemoval(*ad : accountDatabases) : void
- displayAccomplished(*ad : accountDatabases) : void

**accountInfo**
- username[] : char
- password[] : char
- month[][] : int
- day[][] : int
- year[][] : int
- hours[][] : int
- minutes[][] : int
- seconds[][] : int
- task_name[][][] : int

**Home**
- addHigh(*ad : accountDatabases) : void
- addMed(*ad : accountDatabases) : void
- addLow(*ad : accountDatabases) : void
- categorySorted(*ad : accountDatabases) : void
- displayCategory(*ad : accountDatabases)

**Education**
- addHigh(*ad : accountDatabases) : void
- addMed(*ad : accountDatabases) : void
- addLow(*ad : accountDatabases) : void
- categorySorted(*ad : accountDatabases) : void
- displayCategory(*ad : accountDatabases) : void

**Games**
- addHigh(*ad : accountDatabases) : void
- addMed(*ad : accountDatabases) : void
- addLow(*ad : accountDatabases) : void
- categorySorted(*ad : accountDatabases) : void
- displayCategory(*ad : accountDatabases) : void

**Meeting**
- addHigh(*ad : accountDatabases) : void
- addMed(*ad : accountDatabases) : void
- addLow(*ad : accountDatabases) : void
- categorySorted(*ad : accountDatabases) : void
- displayCategory(*ad : accountDatabases) : void

Relationship labels: allMenu, adType, accDb, tasks, home, education, educ, games, meeting, accDatabase[], home

In this UML Class Diagram, the Tasks class methods are inherited by four classes which are Home, Education, Games and Meeting. The Tasks class is the parent class and the four other classes are called the children class. The Home class is aggregated into Account class as object home, and in AllMenu class as object home. The Task, Education, Games and Meeting class are also aggregated to the AllMenu Class as objects tasks, home, education, games, and meeting. The AllMenu class is aggregated into the int main() method as object allMenu. In here, the plus and sign symbol for the methods for each class, plus symbol signifies public access modifier and minus symbol as private access modifier. The structure accountDatabases is aggregated into the main() method and then the structure accountInfo is aggregated into the accountDatabases as a 1D array. The Main class here is included to represent only the function int main() and how it is related to the classes of the program. The accountDatabases and accountInfo are structures, they are here to represent how they are related to the Main function.

1. In here, we created an account with the shown credentials of the user.



2. We logged in using the credentials of the newly registered account

```
■ C:\Users\Ivan\Desktop\pagod na ko\ima turn it up\LBYEC2B TERM 3 PROJECT .exe        —    □    ×
        [2] Login with an existing account      |
                [3]EXIT PROGRAM                  |
-------------------------------------------------
Choice: 2

Enter your username: ivan
Enter your password: daniel

Login successful!
 _____
|              TO-DO LIST TRACKER                 |
|_____ |
|          [1] Add new Tasks to do                |
|          [2] Update finished tasks              |
|    [3] List of all tasks needed to accomplish   |
|          [4] List all accomplished tasks        |
|                 [5] LOGOUT                       |
-------------------------------------------------

Choice: 5
 _____
|              TO-DO LIST TRACKER                 |
|_____ |
|          [1] Create a new account               |
|    [2] Login with an existing account           |
|                [3]EXIT PROGRAM                   |
-------------------------------------------------

Choice:
```

3. In here, we tried to log out first and then we will login again.



```
■ E:\SCHOOL STUFF\LBY EC2B\FINAL PROJECT EC2B\TO-DO LIST TRACKER - EC2B.exe        —    □    ×
Enter your password: daniel

Login successful!
 _____
|              TO-DO LIST TRACKER                 |
|_____ |
|          [1] Add new Tasks to do                |
|          [2] Update finished tasks              |
|    [3] List of all tasks needed to accomplish   |
|          [4] List all accomplished tasks        |
|                 [5] LOGOUT                       |
-------------------------------------------------

Choice: 1
 _____
|      TO-DO LIST TRACKER       |
|_____ |
|          [1] Home             |
|       [2] Education           |
|          [3] Games            |
|        [4] Meeting            |
|     [5] SAVE CHANGES          |
|          [6] Back             |
-------------------------------

 Note: Do not forget to save your plans! Choose option 5 if you wish to save them now before it is lost.

Choice: 1
```

4. We are going to add new tasks for the user. We chose the first category which is Home.

5. Under the 4 categories, there are three kinds of priority to which the user can assign to the task: High, Medium and Low.



6. Here, the user is tasked to name the task and enter its deadline. The time is in 24-hour format clock and the date is in (MM/DD/YYYY).

```
C:\Users\Ivan\Desktop\pagod na ko\ima turn it up\LBYEC2B TERM 3 PROJECT .exe                    —    □    ✕
       [4] Meeting          |
        [5] Back            |
--------------------------

Choice: 1
 _____
|            TO-DO LIST TRACKER          |
|_____|
|          [1] High Priority             |
|          [2] Medium Priority           |
|          [3] Low Priority              |
|          [4] Back                      |
------------------------------------------

Choice: 2
Name of the task: EAT DINNER
Deadline of the task
Date in format (MM/DD/YYYY): 10/28/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 18:30:30
 _____
|            TO-DO LIST TRACKER          |
|_____|
|          [1] High Priority             |
|          [2] Medium Priority           |
|          [3] Low Priority              |
|          [4] Back                      |
------------------------------------------

Choice:
```

7. This one is for the medium priority for Home category.

```
C:\Users\Ivan\Desktop\pagod na ko\ima turn it up\LBYEC2B TERM 3 PROJECT .exe                    —    □    ✕
|          [1] High Priority             |
|          [2] Medium Priority           |
|          [3] Low Priority              |
|          [4] Back                      |
------------------------------------------

Choice: 2
Name of the task: EAT DINNER
Deadline of the task
Date in format (MM/DD/YYYY): 10/28/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 18:30:30
 _____
|            TO-DO LIST TRACKER          |
|_____|
|          [1] High Priority             |
|          [2] Medium Priority           |
|          [3] Low Priority              |
|          [4] Back                      |
------------------------------------------

Choice: 3
Name of the task: WASH THE DISHES
Deadline of the task
Date in format (MM/DD/YYYY): 10/28/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 18:40:30
 _____
|            TO-DO LIST TRACKER          |
|_____|
```

8. This is for the low priority. Now for the other categories:

Education:





Games:

```
C:\Users\Ivan\Desktop\pagod na ko\ima turn it up\LBYEC2B TERM 3 PROJECT .exe                    —   □   ×

-------------------------------------------

Choice: 1
Name of the task: DESTINY 2
Deadline of the task
Date in format (MM/DD/YYYY): 10/1/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 10:30:30
    _____
|          TO-DO LIST TRACKER          |
|_____|
|                                      |
|            [1] High Priority         |
|            [2] Medium Priority       |
|            [3] Low Priority          |
|            [4] Back                  |
-------------------------------------------

Choice: 2
Name of the task: VALORANT
Deadline of the task
Date in format (MM/DD/YYYY): 10/1/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 15:30:30
    _____
|          TO-DO LIST TRACKER          |
|_____|
|                                      |
|            [1] High Priority         |
|            [2] Medium Priority       |
|            [3] Low Priority          |
|            [4] Back                  |
-------------------------------------------

Choice: 3
Name of the task: ANTHEM
Deadline of the task
Date in format (MM/DD/YYYY): 10/2/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 15:30:30
    _____
|          TO-DO LIST TRACKER          |
|_____|
|                                      |
|            [1] High Priority         |
|            [2] Medium Priority       |
|            [3] Low Priority          |
```

Meeting:

```
C:\Users\Ivan\Desktop\pagod na ko\ima turn it up\LBYEC2B TERM 3 PROJECT .exe                    —   □   ×

-------------------------------------------

Choice: 1
Name of the task: TWICE COMEBACK
Deadline of the task
Date in format (MM/DD/YYYY): 10/26/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 17:30:30
    _____
|          TO-DO LIST TRACKER          |
|_____|
|                                      |
|            [1] High Priority         |
|            [2] Medium Priority       |
|            [3] Low Priority          |
|            [4] Back                  |
-------------------------------------------

Choice: 2
Name of the task: ORG MEETING
Deadline of the task
Date in format (MM/DD/YYYY): 9/29/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 14:30:30
    _____
|          TO-DO LIST TRACKER          |
|_____|
|                                      |
|            [1] High Priority         |
|            [2] Medium Priority       |
|            [3] Low Priority          |
|            [4] Back                  |
-------------------------------------------

Choice: 3
Name of the task: ZOOM CALL WITH FRIENDS
Deadline of the task
Date in format (MM/DD/YYYY): 10/3/2020
The time format uses a 24-hour format clock.
Please enter the time in format (HH:MM:SS): 15:30:30
    _____
|          TO-DO LIST TRACKER          |
|_____|
|                                      |
|            [1] High Priority         |
|            [2] Medium Priority       |
|            [3] Low Priority          |
```

```
                  [2] Update finished tasks        |
      [3] List of all tasks needed to accomplish   |
              [4] List all accomplished tasks       |
                         [5] LOGOUT                 |
-----------------------------------------------------
Choice: 3
|               TO-DO LIST TRACKER                  |
|                                                   |
|       [1] Sort according to Date & Time           |
|       [2] Sort according to Priority              |
|       [3] Sort according to Category              |
|   [4] Suggested order on accomplishing tasks      |
|                    [5] Back                       |
-----------------------------------------------------
Choice: 1
Name of task: ORG MEETING
Deadline: 9/29/2020 14:30:30

Name of task: GEPCOMM ADVOCACY LETTER
Deadline: 9/29/2020 23:59:59

Name of task: LBYCPEI MODULE 7 GUI
Deadline: 9/30/2020 23:59:59

Name of task: LBYEC2B FINAL REPORT
Deadline: 9/30/2020 23:59:59

Name of task: HOUSEHOLD CHORES
Deadline: 10/1/2020 10:30:10

Name of task: DESTINY 2
Deadline: 10/1/2020 10:30:30

Name of task: VALORANT
Deadline: 10/1/2020 15:30:30

Name of task: ANTHEM
Deadline: 10/2/2020 15:30:30

Name of task: ZOOM CALL WITH FRIENDS
Deadline: 10/3/2020 15:30:30

Name of task: TWICE COMEBACK
Deadline: 10/26/2020 17:30:30

Name of task: EAT DINNER
Deadline: 10/28/2020 18:30:30

Name of task: WASH THE DISHES
Deadline: 10/28/2020 18:40:30

|               TO-DO LIST TRACKER                  |
|                                                   |
|       [1] Sort according to Date & Time           |
|       [2] Sort according to Priority              |
|       [3] Sort according to Category              |
|   [4] Suggested order on accomplishing tasks      |
|                    [5] Back                       |
-----------------------------------------------------
Choice:
```

9. In here, we can see that all the tasks are arranged according to time and date.

```
|       [1] Sort according to Date & Time           |
|       [2] Sort according to Priority              |
|       [3] Sort according to Category              |
|   [4] Suggested order on accomplishing tasks      |
|                    [5] Back                       |
-----------------------------------------------------
Choice: 2
HIGH
Task name: HOUSEHOLD CHORES
Due on: 10/1/2020 10:30:10

Task name: LBYCPEI MODULE 7 GUI
Due on: 9/30/2020 23:59:59

Task name: DESTINY 2
Due on: 10/1/2020 10:30:30

Task name: TWICE COMEBACK
Due on: 10/26/2020 17:30:30

MEDIUM
Task name: EAT DINNER
Due on: 10/28/2020 18:30:30

Task name: LBYEC2B FINAL REPORT
Due on: 9/30/2020 23:59:59

Task name: VALORANT
Due on: 10/1/2020 15:30:30

Task name: ORG MEETING
Due on: 9/29/2020 14:30:30

LOW
Task name: WASH THE DISHES
Due on: 10/28/2020 18:40:30

Task name: GEPCOMM ADVOCACY LETTER
Due on: 9/29/2020 23:59:59

Task name: ANTHEM
Due on: 10/2/2020 15:30:30

Task name: ZOOM CALL WITH FRIENDS
Due on: 10/3/2020 15:30:30

|               TO-DO LIST TRACKER                  |
|                                                   |
|       [1] Sort according to Date & Time           |
|       [2] Sort according to Priority              |
|       [3] Sort according to Category              |
|   [4] Suggested order on accomplishing tasks      |
|                    [5] Back                       |
-----------------------------------------------------
Choice:
```

10. In here the tasks are arranged by priority only.



11. In here the tasks are arranged by category which are Home, Education, Games and Meeting.
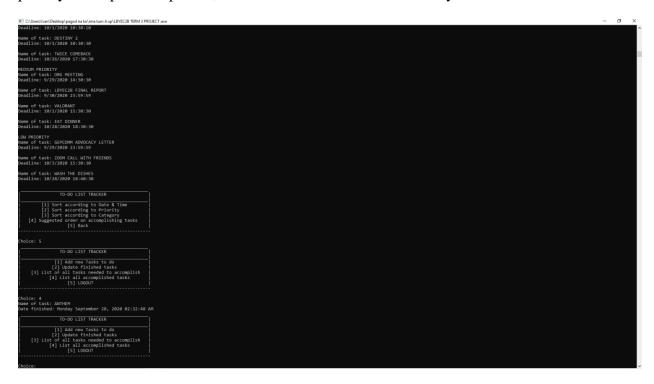
12. In here, the program generated a suggested time schedule according to priority, time and date, arranged in from high to low, and time and date is in ascending order.



13. Here, we removed the task 'ANTHEM'

14. This is to check if the task 'ANTHEM' got removed. The tasks 'ANTHEM' was at the low priority in the previous picture, as we can see it is not on the list anymore.



15. In this option, it displays the accomplished tasks and the date it was accomplished.

16. We created a new account to check whether the tasks from the previous user will be read to this account.



17. From the picture, there is a display that says "No plans added yet. Add some now!" Meaning that there are no plans assigned to this account yet.