Project Report

Mawlana Bhashani Science & Technology University

Department: Computer Science and Engineering

Course Title: Software Development Project-II and Industrial Tour

Course Code: CSE3116

Project Name: Personal Task tracker

Submitted By,

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Semester: 1st

Session: 2017-18

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Table of Contents:

Work assignment:

Sub teams information	Requirements specification	Software design	Coding	Debugging & testing	Report preparation
Nurul Kabir Rana CE-18049	40%	50%	60%	60%	40%
Farzana Haque CE-18050	60%	50%	40%	40%	60%

Individual contribution:

Student information	Requirements specification	Software design	Coding	Debugging & testing	Report preparation
Nurul Kabir Rana CE-18049	40%	50%	60%	50%	40%
Farzana Haque CE-18050	60%	50%	40%	50%	60%

Analysis and Domain Modelling:

a. **Conceptual Model:**
   Personal task tracker is a great way to stay on top of your tasks and be productive. It is very easy- to- use which lets you manage your tasks within time.

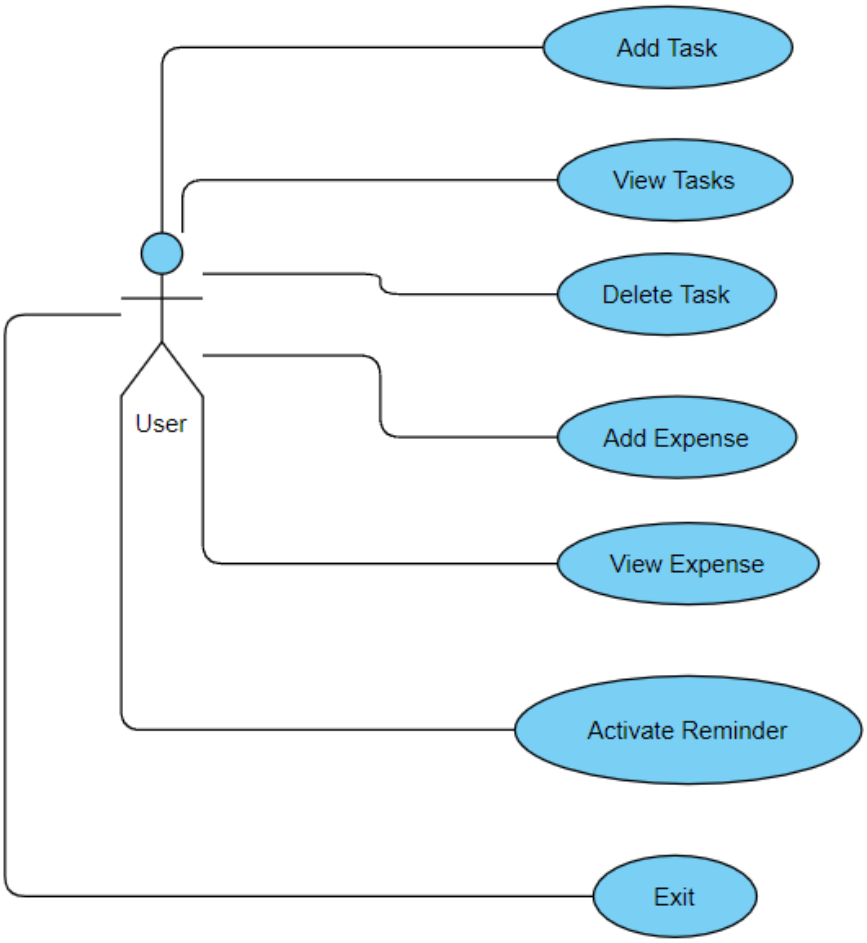


Fig: Use Case Diagram for Personal Task Tracker

b. System Operation Contracts:

- The add task function allows the user to assign his daily tasks.
- Through the view task function, the user can see his assigned tasks on the screen.
- The delete task function allows the user to delete the task as he wishes.
- The add expense function allows the user to enter a list of their daily expenses.
- The view expense function allows the user to view a list of expenses.
- The assigned tasks will notify the user through the alarm at the specified time by the activate reminder function.
- The exit function allows the user to exit the system.

Interaction Diagram:

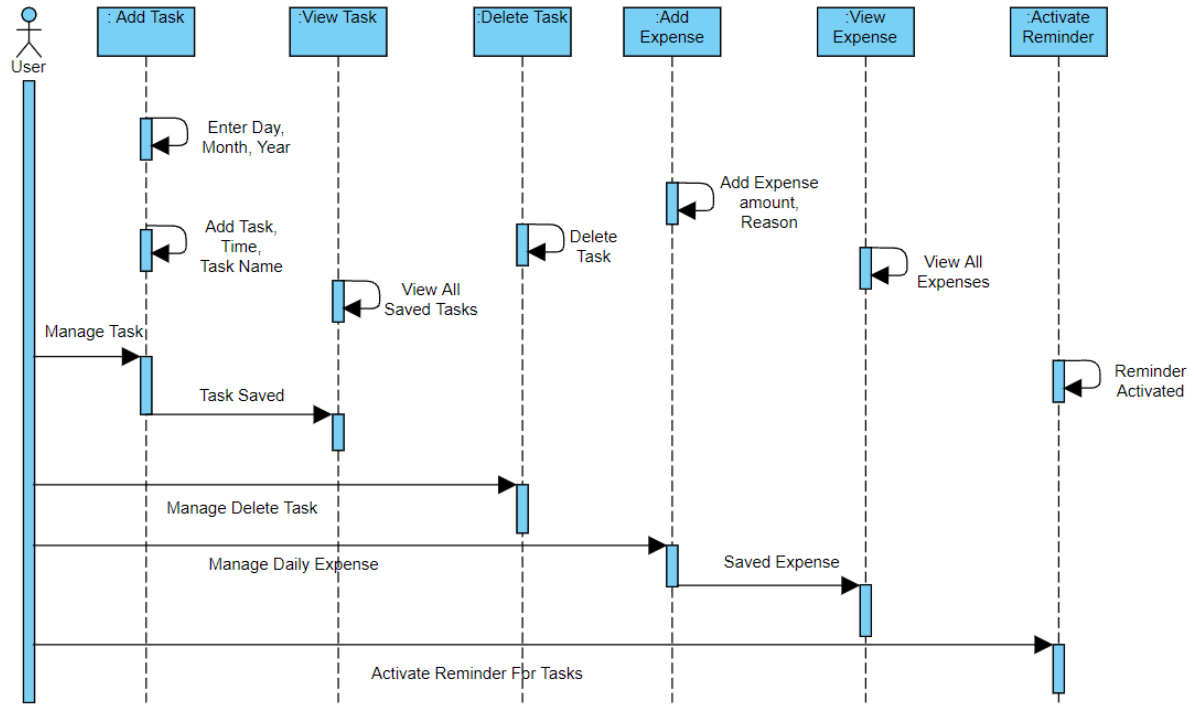


Fig: Sequence Diagram for Personal Task Tracker

Class Diagram and Interface Specification:

a. Class Diagram:

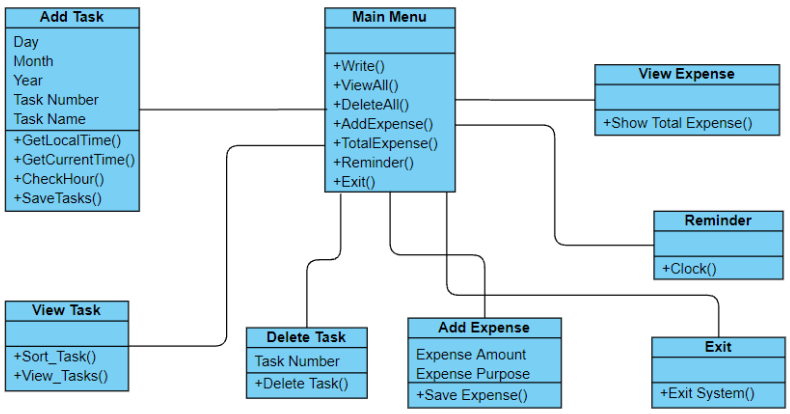


Fig: Class Diagram of Personal task Tracker.

b. Data Types and Operation Signatures:

Classes of Personal Task Tracker:

- **Main Menu class -**
  It manages all operations of personal task tracker. It is central part of the organization for which software is being designed.
- **Add Task Class -**
  It manages all operations for saving the tasks.
- **View Task Class -**
  It manages all operations for displaying all the saved tasks.
- **Delete Task Class -**
  It manages all operations for deleting user specified tasks.
- **Add Expense Class -**
  It manages all operations for adding user expenses.
- **View Expense Class -**
  It manages all operations for showing total expenses of user.
- **Reminder Class -**
  It manages all operations for activating all saved tasks.

Attributes of Personal Task Tracker:

- **Add Task Class -**
  Day, Month, Year, Task Number, Task Name.
- **Delete Task Class -**
  Task Number.
- **Add Expense Class -**
  Expense Amount, Expense Purpose.

Methods of Personal Task Tracker:

- **Main Menu Class -**
  Write(), ViewAll(), DeleteAll(), AddExpense(), TotalExpense(), Reminder(), Exit().
- **Add Task Class -**
  GetLocalTime(), GetCurrentTime(), CheckHour(), SaveTask().
- **View Task Class -**

Sort_Task(), View_Tasks().

- **Delete Task Class -**
  Delete Task().
- **Add Expense Class -**
  Save Expense().
- **View Expense Class -**
  Show total Expense().
- **Reminder Class -**
  Clock().
- **Exit class -**
  Exit().

Algorithms and Data Structures:

a. **Algorithm:**
   Main Function:
   Steps:
   1. Starts with welcome screen
   2. Display main menu as below
      - Add Tasks
      - View All Tasks
      - Delete Tasks
      - Add Todays Expense
      - View Total Expense
      - Exit
      - Activate Reminder
   3. Get choice from user

      Choice 1: Call function Add Tasks

      Choice 2: Call function View All Tasks

      Choice 3: Call function Delete Tasks

      Choice 4: Call function Add Todays Expense

      Choice 5: Call function View Total Expense

      Choice 6: Go to step 4

      Choice 7: Call function Activate Reminder

4. Stop

Add Task Function:

Steps:

1. Get today's Day-Month-Year input from user
   Yes: Go to step 2
   No: Go to step 1
2. Get how many tasks, user want to enter
3. Get hour and minute from user
   Yes: Go to step 4
   No: Use 12 hour format and minute must be less than 60
4. Enter time format AM or PM
5. Enter event name
   Yes: Tasks saved
   No: Press k for main menu

View All Tasks Function:

Steps:

1. Sort all the tasks according to time
2. If tasks assigned
   Yes: Show all the Tasks
   No: Press k for main menu

Delete Task Function:

Steps:

1. If press k,
   Yes: Go to main menu
   No: Press d for continue delete
2. Get task number to delete
   Yes: Task deleted, press k for main menu
   No: Invalid Task number

Add Expense Function:

Steps:

1. Get expense amount
2. Get expense purpose
3. Press k for main menu

View Total Expense Function:

Steps:

1. Get choice from user
   Choice 1: Daily Expense
   Choice 2: Weekly Expense
   Choice 3: Monthly Expense
   Choice 4: Main Menu
2. If choice is Daily Expense, go to step (a)
   a. If expense exists,
      Yes: Show total expense
      No: No expense to show
   b. Press k for main menu
3. If choice is Weekly Expense, go to step (c)
   c. If expense exists,
      Yes: Show total weekly expense
      No: Weekly expense will be available when week ends
   d. Press k for main menu
4. If choice is Monthly Expense, go to step (e)
   e. If expense exists,
      Yes: Show total monthly expense
      No: Monthly expense will be available when Month ends
   f. Press k for main menu
5. If choice is Main Menu, go to main menu

Activate Reminder Function:

Steps:

1. If input day, month, year == today's date
      Yes: Go to step 2
      No: You have no task

2. When input hour, minute == local time, alarm ringing
3. Press k to go main menu

Exit Function:

Steps:

1. Stop

User Interface Design and Implementation:

The personal task tracker design was concentrated on extremely simple interaction and intuitive navigation, while in UI aspect the core concerns gathered around high readability level and visual hierarchy that would allow users to use the app easily in any environment and in the go. In addition, working on the visual performance of the task tracker user interface, we made a general stylistic concept choice in favor of minimalist and elegant solutions.

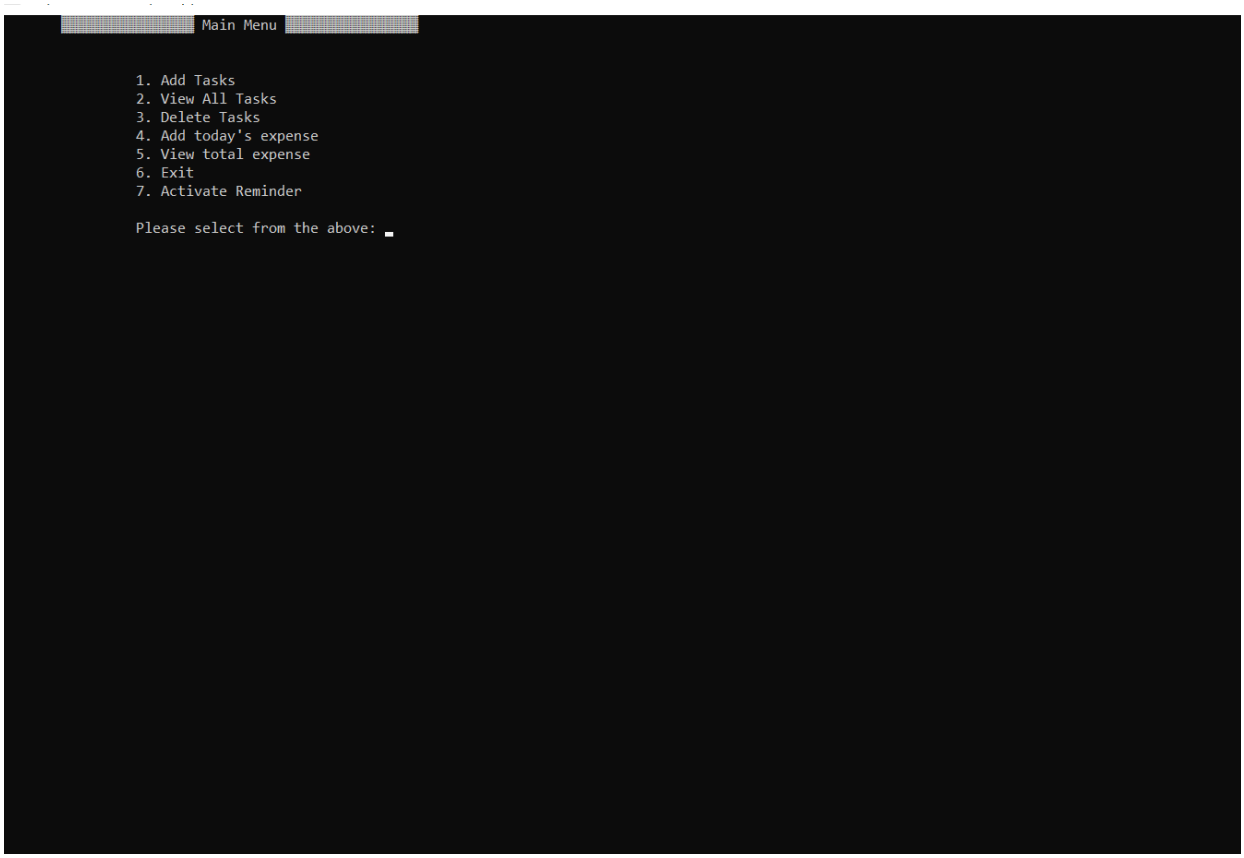
When we made a decision to design personal task tracker, the basic idea was creating a helpful list tracker design, deeply concentrating user's attention on the tasks and deadline. That's why it doesn't include complex functionality, distractions or decorations. It presents only the features and elements needed for time and task management.

Functions and Features provide the following:

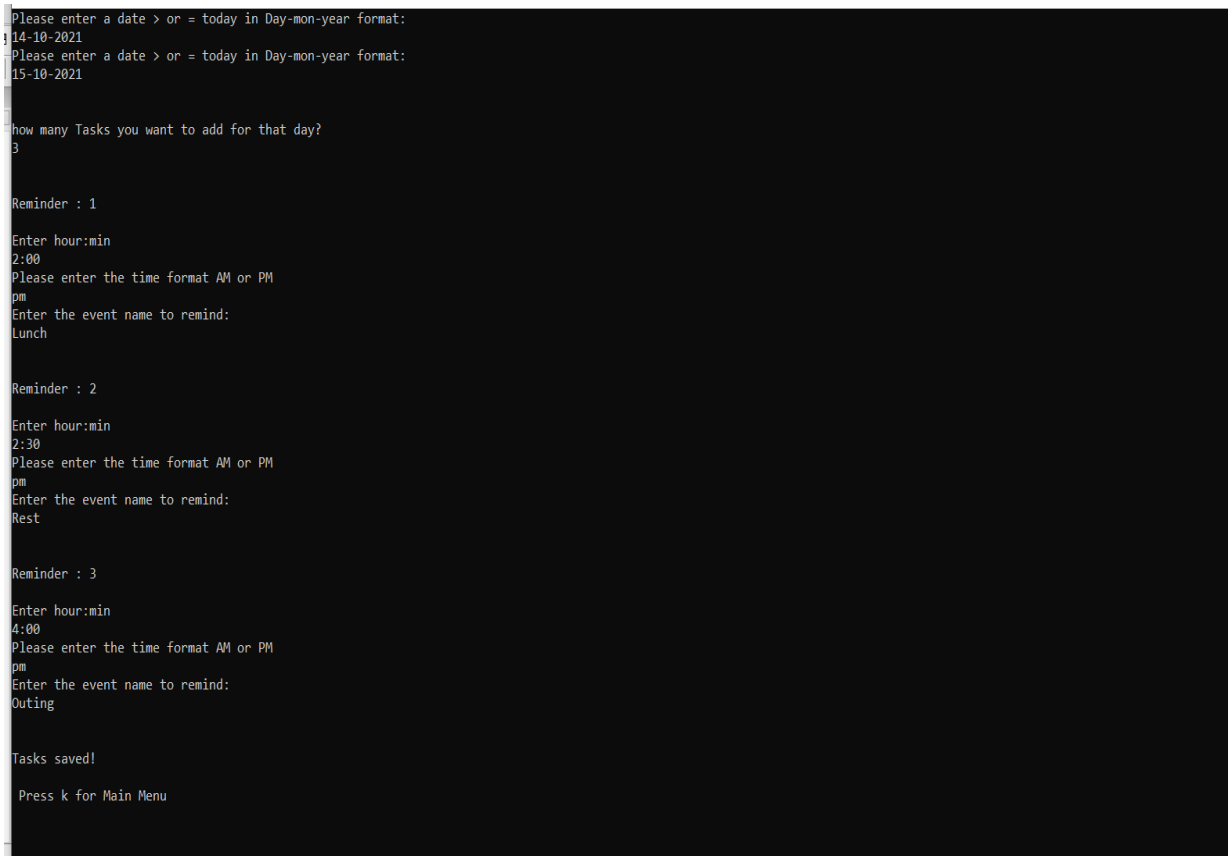
- All the features of the app are free for everyone
- Simple and clear navigation
- Easy adding, deleting and marking tasks

Design of Tests:

Main Menu:

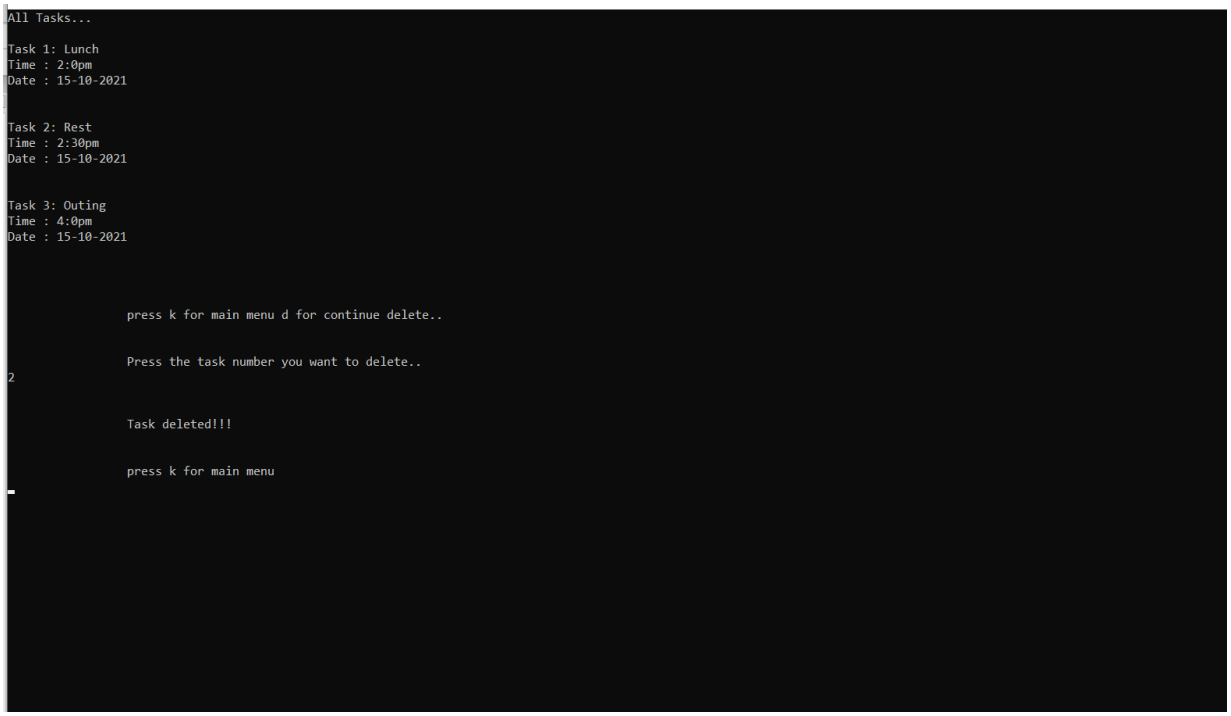

Main Menu
1. Add Tasks
2. View All Tasks
3. Delete Tasks
4. Add today's expense
5. View total expense
6. Exit
7. Activate Reminder
Please select from the above:

Add Task:


Please enter a date > or = today in Day-mon-year format:
14-10-2021
Please enter a date > or = today in Day-mon-year format:
15-10-2021
how many Tasks you want to add for that day?
3
Reminder : 1
Enter hour:min
2:00
Please enter the time format AM or PM
pm
Enter the event name to remind:
Lunch
Reminder : 2
Enter hour:min
2:30
Please enter the time format AM or PM
pm
Enter the event name to remind:
Rest
Reminder : 3
Enter hour:min
4:00
Please enter the time format AM or PM
pm
Enter the event name to remind:
Outing
Tasks saved!
Press k for Main Menu

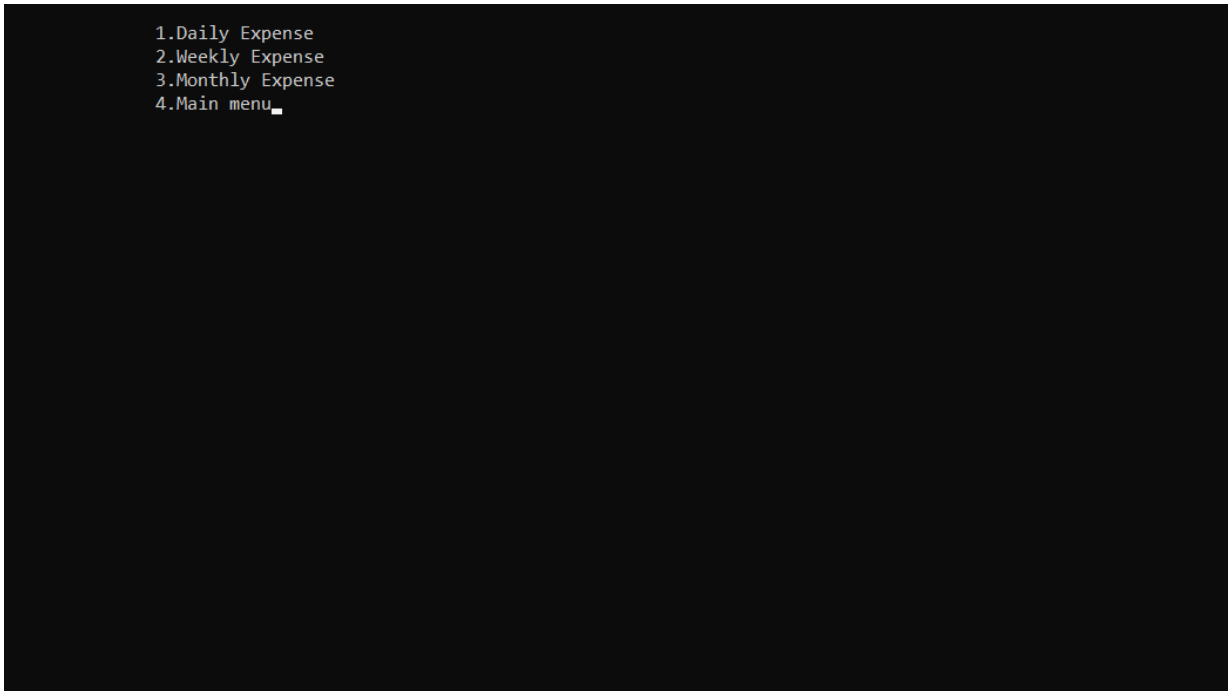
View All Task:

Delete Task:

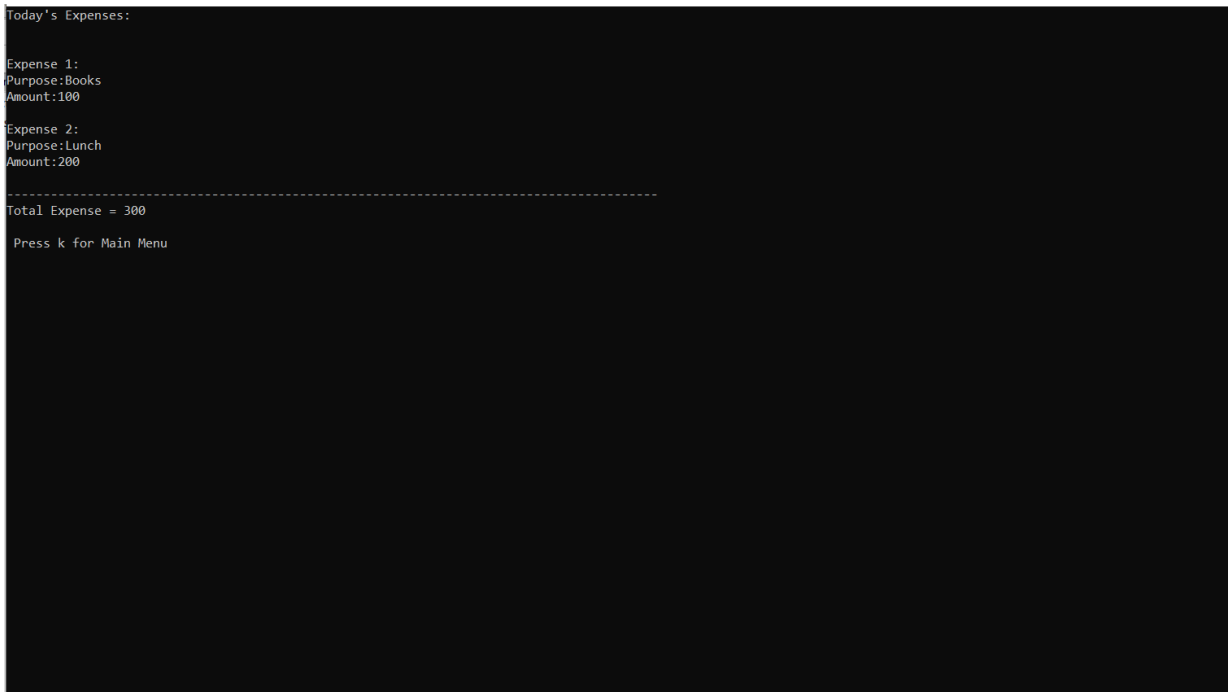


Add Expenses:

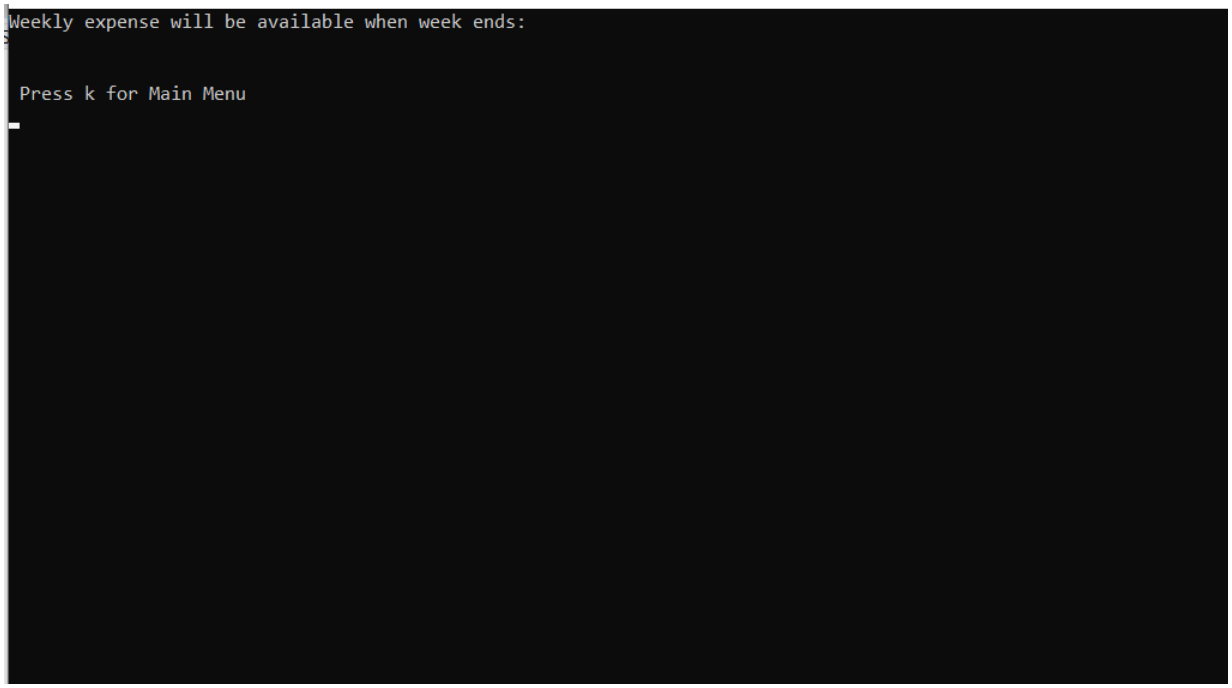
View All Expenses:



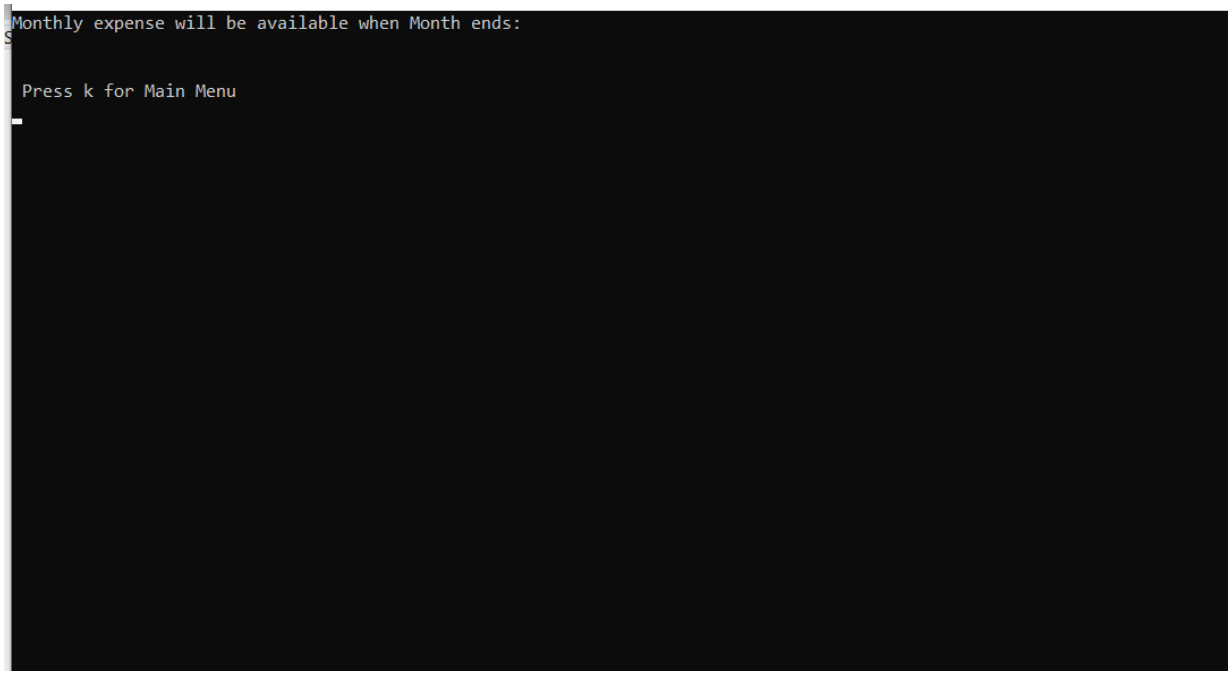
1. Daily Expense:



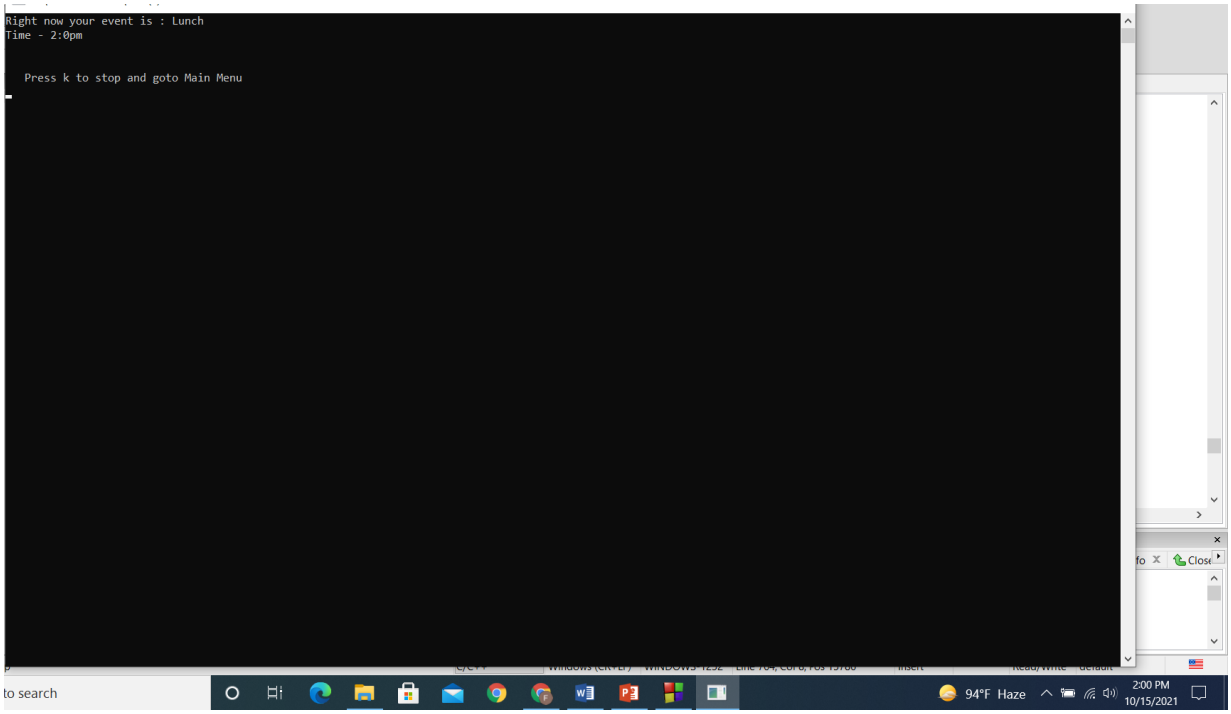
2. Weekly Expense:



3. Monthly Expense:



Activate Reminder:



Project Management and Plan of Work:

Project period - 2021

Activities	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
Topic specification	—									
Software design	—	—	—					—	—	
Methodology development		—	—	—	—			—	—	—
Debugging and testing			—	—	—	—	—		—	—
Writing and editing report								—	—	—
Project submission										—

References:

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