MOMAP's Task Management System

Intro to Programming

CMPT 120L – 114

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Fall 2024

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1. WHO IS MOMAP?

Marissa Ratschki (Team Head)

GRADE: Sophomore

MAJOR: Cybersecurity

CONCENTRATION: N/A

Olufunke Gando (Team Member)

GRADE: Freshman

MAJOR: Computer Science

CONCENTRATION: Software Development

Prashna Khadka (Team Member)

GRADE: Freshman

MAJOR: Computer Science

CONCENTRATION: Software Development

Anna Chen (Team Member)

GRADE: Junior

MAJOR: Business Administration

CONCENTRATION: Marketing & Management

Marlene Santiago-Cuevas (Team Member)

GRADE: Freshman

MAJOR: Computer Science

CONCENTRATION: Software Development

2. PROJECT OBJECTIVES & DESCRIPTIONS

The system will support the following features:

- An admin username and password for log-in

- Option to change the admin username and password

- Normal username and password

- Removal of normal user by erasing login credentials

Each user will be able to:

- Add a task to the Task Management System

- Remove a task

- Edit a task

- Search for a task

2. PROJECT OBJECTIVES & DESCRIPTIONS

The system will utilize a user-friendly software:

- Show a welcome page and a menu of all functions available to the user

- Display a calendar for every month or year

- Display a warning whenever the users attempts to enter task information with a name that is already in use

- Have an exit function

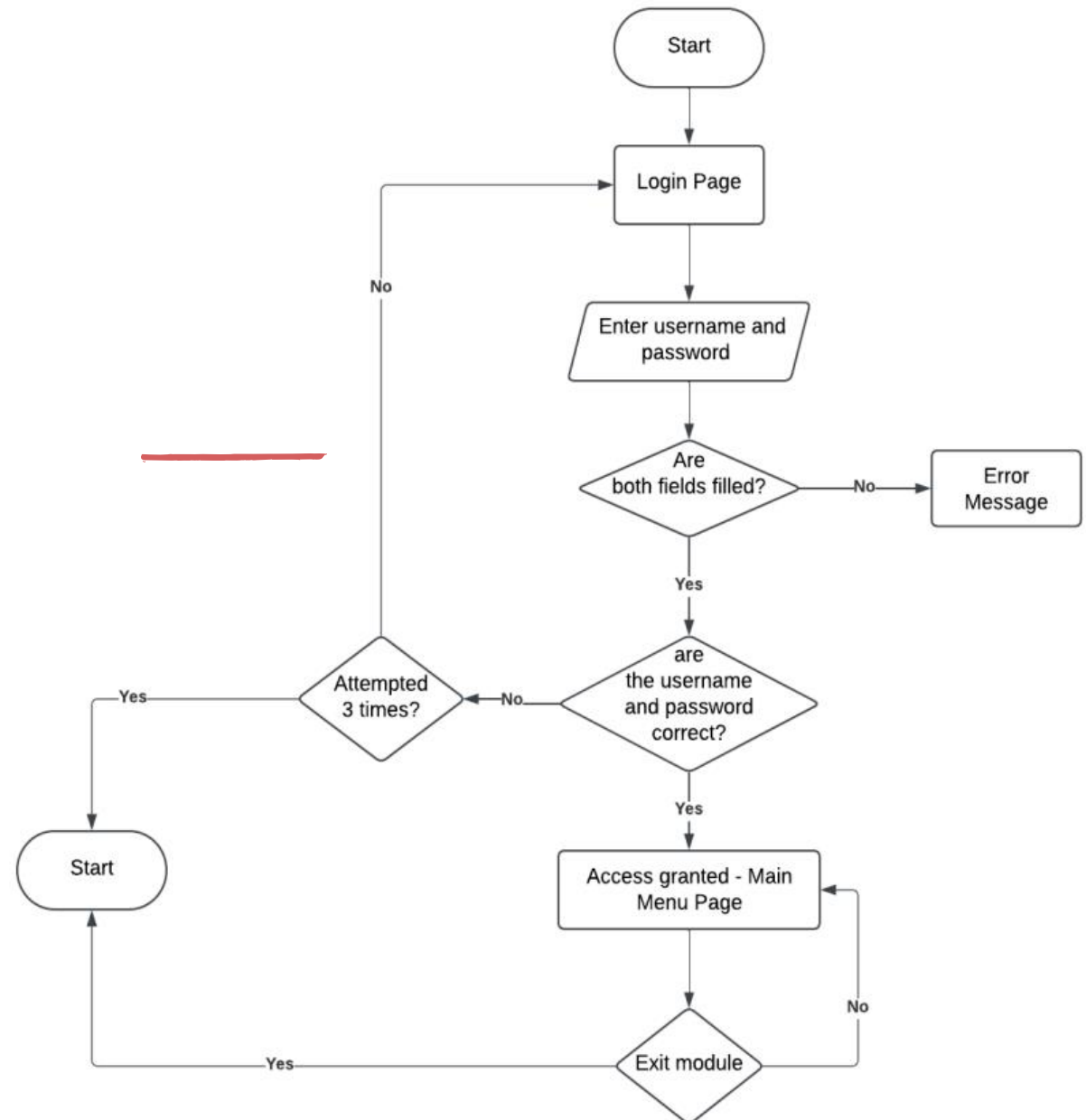**The system will protect user information:**

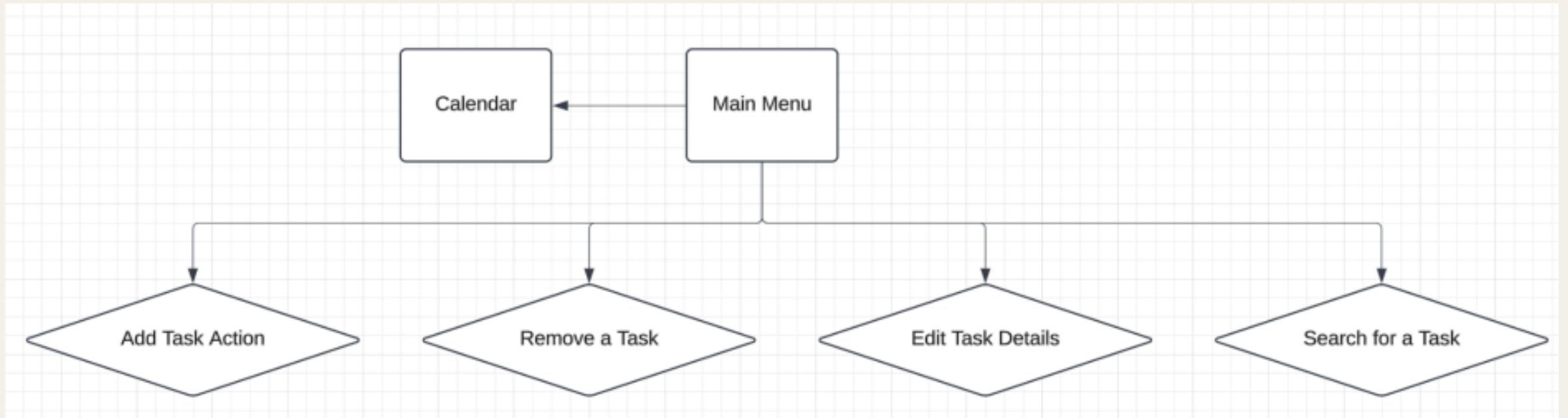- Information provided will be ciphered using a Caesar cipher
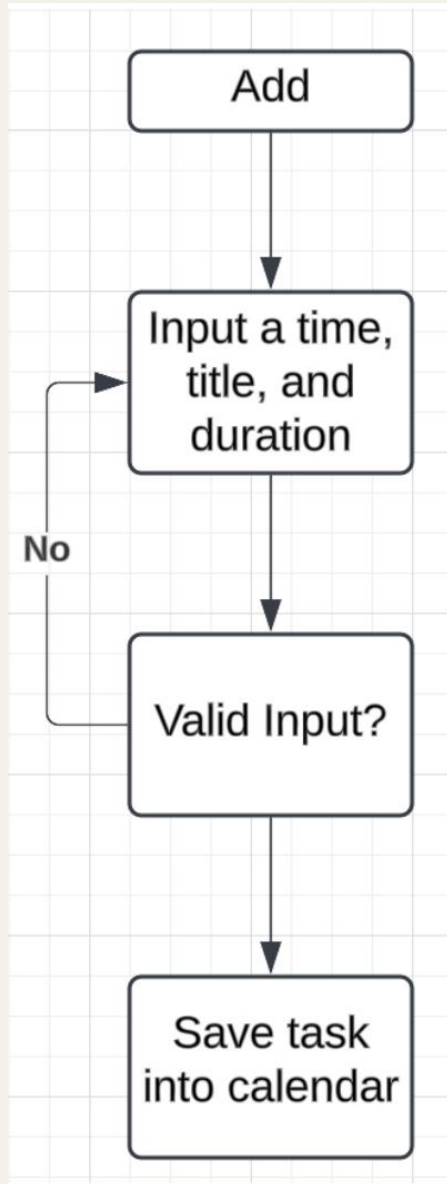
3. GRAPHICAL USER EXPERIENCE DESIGN

Login Page

Main Menu Page

Add Task Page:

Add

Input a time, title, and duration

No

Valid Input?

Save task into calendar

Remove Task Page:

Remove

Select task

Remove task?

Yes — No

Delete task   Main Menu

Search Task Page:

Search

↓

Input a time, title, or duration

↓

Valid Input? — No →

↓

Go into task

Edit Task Page:

Edit

↓

Select a task

↓

Edit time, title, or duration — No →

↓

Save changes?

↓

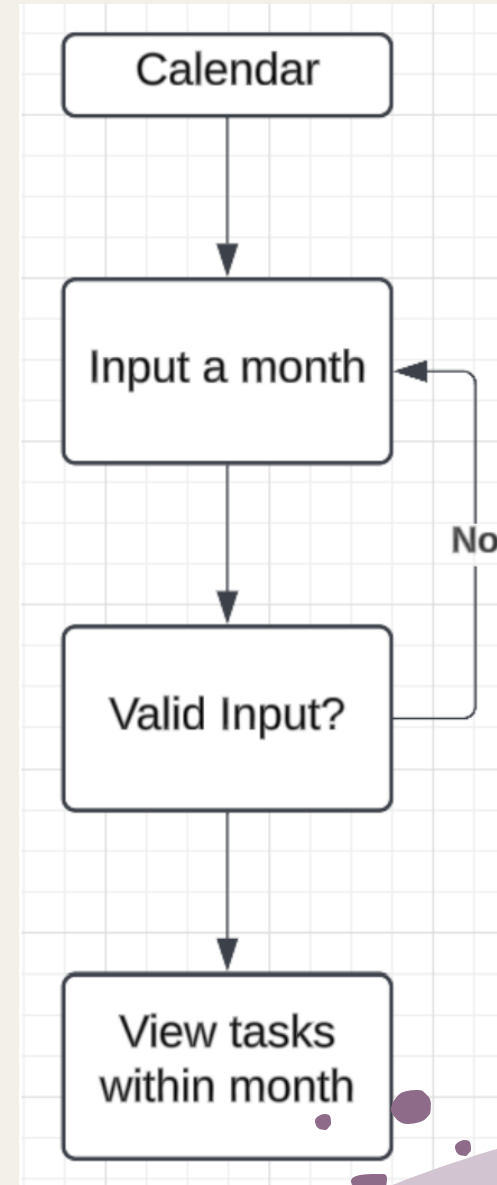Save task into calendar
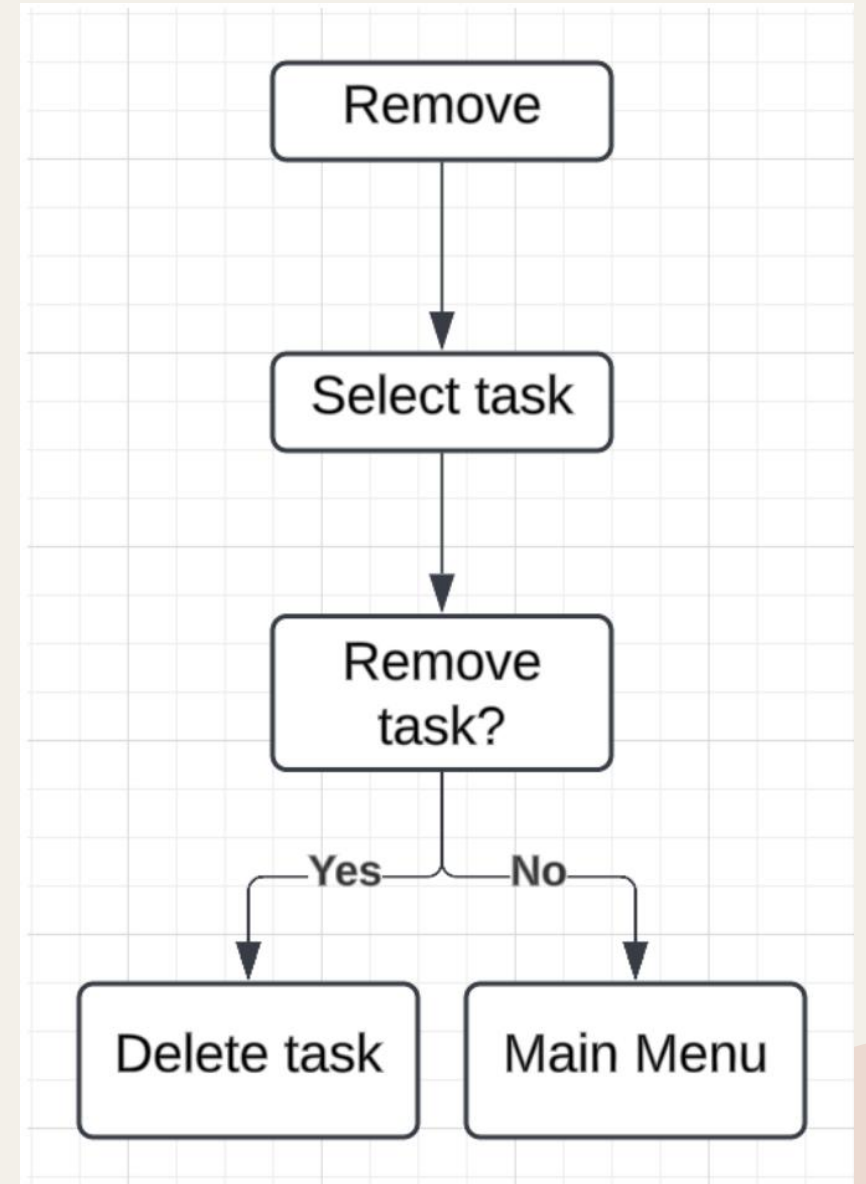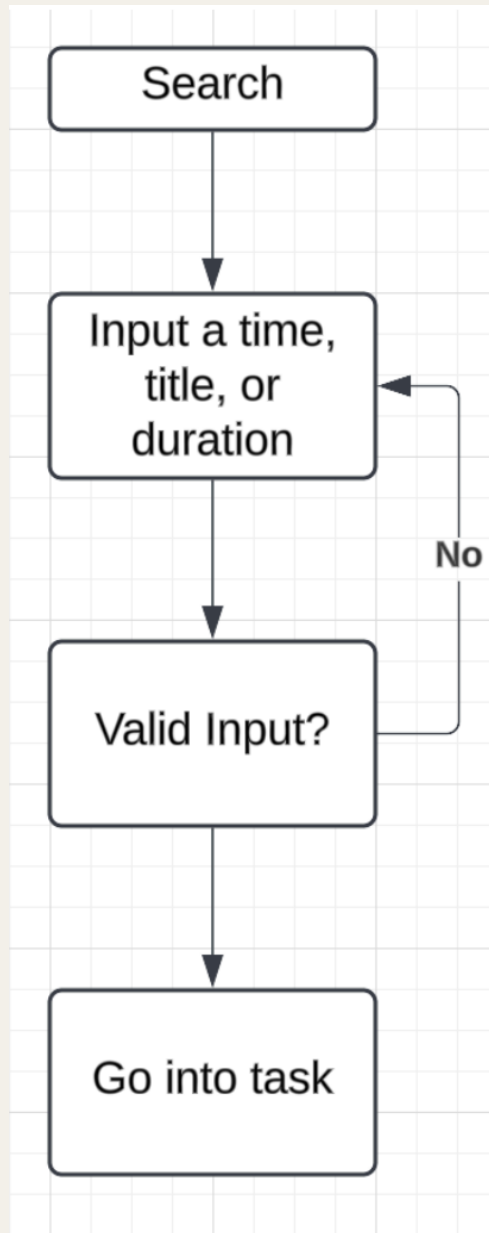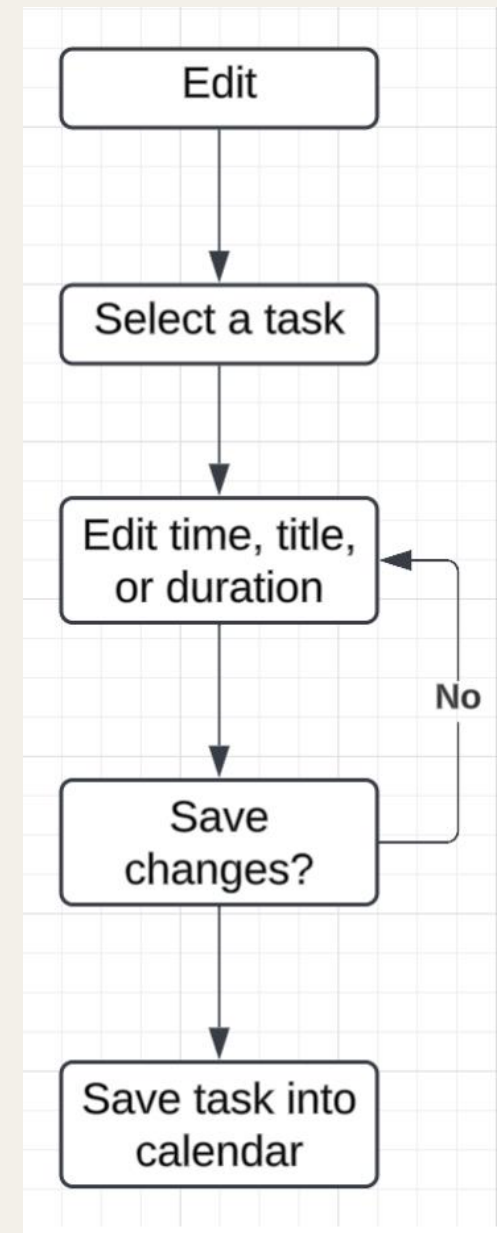
Calendar Page

4. Virtual Environment

```
Last login: Tue Nov  5 21:42:15 on ttys001
[annachen@148-100-170-111 ~ % sudo pip3 install virtualenv
[Password:
WARNING: The directory '/Users/annachen/Library/Caches/pip' or its parent directo
ry is not owned or is not writable by the current user. The cache has been disabl
ed. Check the permissions and owner of that directory. If executing pip with sudo
, you should use sudo's -H flag.
Requirement already satisfied: virtualenv in /Library/Frameworks/Python.framework
/Versions/3.12/lib/python3.12/site-packages (20.27.1)
Requirement already satisfied: distlib<1,>=0.3.7 in /Library/Frameworks/Python.fr
amework/Versions/3.12/lib/python3.12/site-packages (from virtualenv) (0.3.9)
Requirement already satisfied: filelock<4,>=3.12.2 in /Library/Frameworks/Python.
framework/Versions/3.12/lib/python3.12/site-packages (from virtualenv) (3.16.1)
Requirement already satisfied: platformdirs<5,>=3.9.1 in /Library/Frameworks/Pyth
on.framework/Versions/3.12/lib/python3.12/site-packages (from virtualenv) (4.3.6)
WARNING: Running pip as the 'root' user can result in broken permissions and conf
licting behaviour with the system package manager, possibly rendering your system
 unusable.It is recommended to use a virtual environment instead: https://pip.pyp
a.io/warnings/venv. Use the --root-user-action option if you know what you are do
ing and want to suppress this warning.
annachen@148-100-170-111 ~ % python3 -m venv MOMAP
annachen@148-100-170-111 ~ % source MOMAP/bin/activate
(MOMAP) annachen@148-100-170-111 ~ % ▌
```

5. DATA STORAGE

```python
def load_users(self):    # loads users stored in the text file
    try:
        with open("users.txt", "r") as file:
            for line in file:
                username, password = line.strip().split("|")
                if username not in users:
                    users[username] = {"password": password, "tasks": []}
        print(f"Loaded users: {users}")
    except FileNotFoundError:
        print("No user file found.")


def save_users(self):
    try:
        with open("users.txt", "w") as file:
            for username, data in users.items():
                file.write(f"{username}|{data['password']}\n")
        print("Users saved successfully.")
    except Exception as e:
        print(f"Error saving users: {e}")
```

- Username and password are saved and stored in "users.txt" file

- Every task created by user is saved and stored in "tms_tasks.txt" file

```python
def load_task(self):
    print("Loading tasks...")
    try:
        with open("tms_tasks.txt", "r") as file:
            for line in file:
                user, title, time, duration, description = line.strip().split("|")
                if user not in users:
                    users[user] = {"password": "", "tasks": []}
                users[user]["tasks"].append({
                    "title": title.strip(),   # strips invisible characters
                    "time": time.strip(),
                    "duration": duration.strip(),
                    "description": description.strip()
                })
        print(f"Users from task list: {users}")
    except FileNotFoundError:
        pass
    print("No tasks found")


def save_task(self):
    print("Saving tasks to tms_tasks.txt")
    try:
        with open("tms_tasks.txt", "w") as file:
            for user, data in users.items():
                for task in data["tasks"]:
                    print(f"Saving task: {task}")  # confirms task data is saved
                    file.write(f"{user}|{task['title']}|{task['time']}|{task['duration']}|{task['description']}\n")
        print("Task saved successfully")
    except Exception as e:
        print(f"Error saving task: {e}")
```

6. USER INTERFACE DESIGN

Login Page:
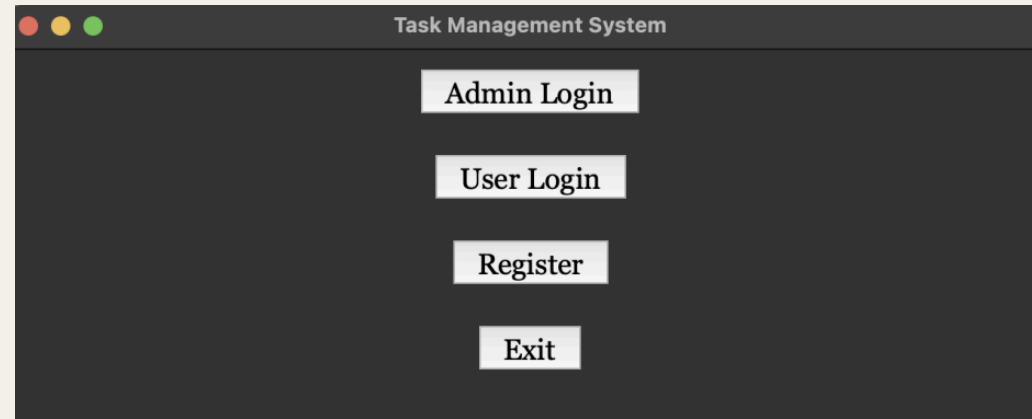
Main Menu Page:

Add Task Page:

Task added.

OK

Add Task

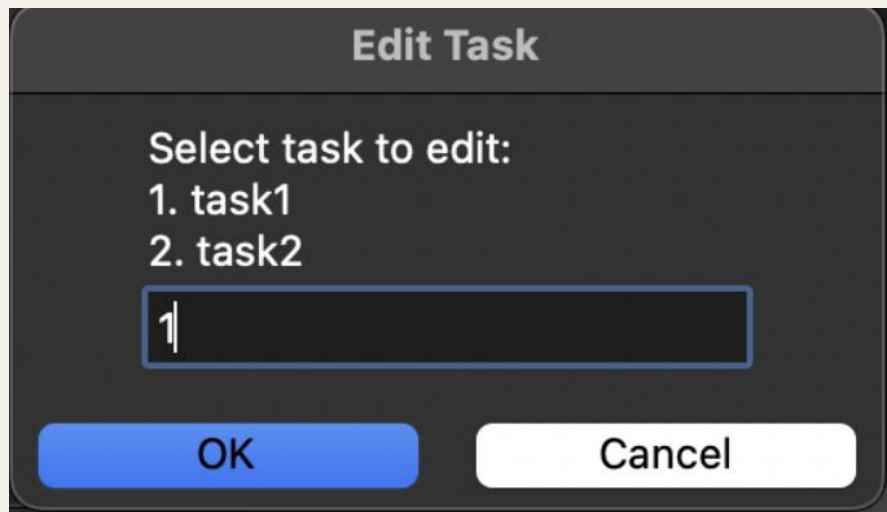Logout

Title:

Time:

Duration:

Description:

Save Task
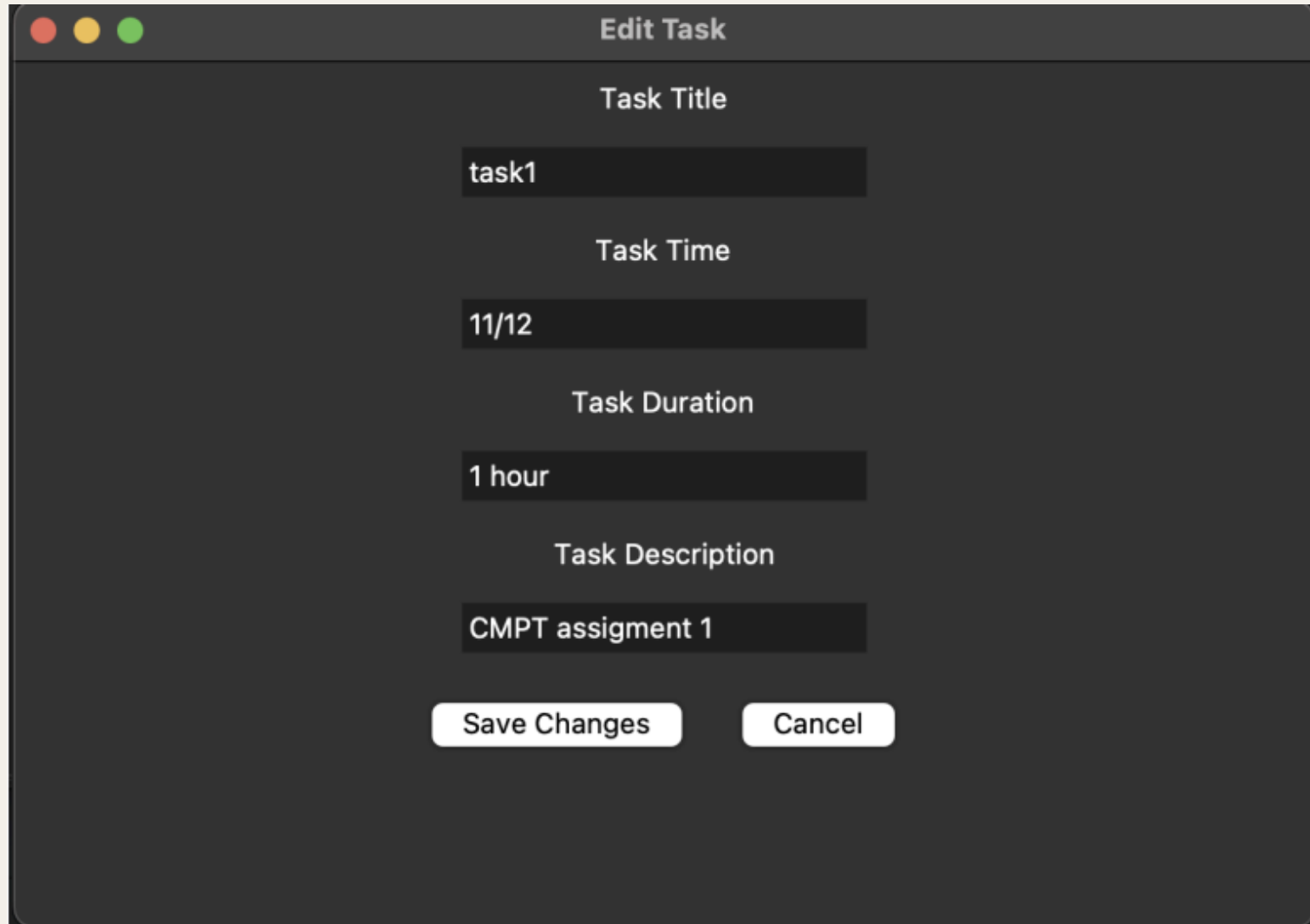
Cancel

Edit Task Page:

Edit Task

Select task to edit:
1. task1
2. task2

1

OK   Cancel

Edit Task

Task Title
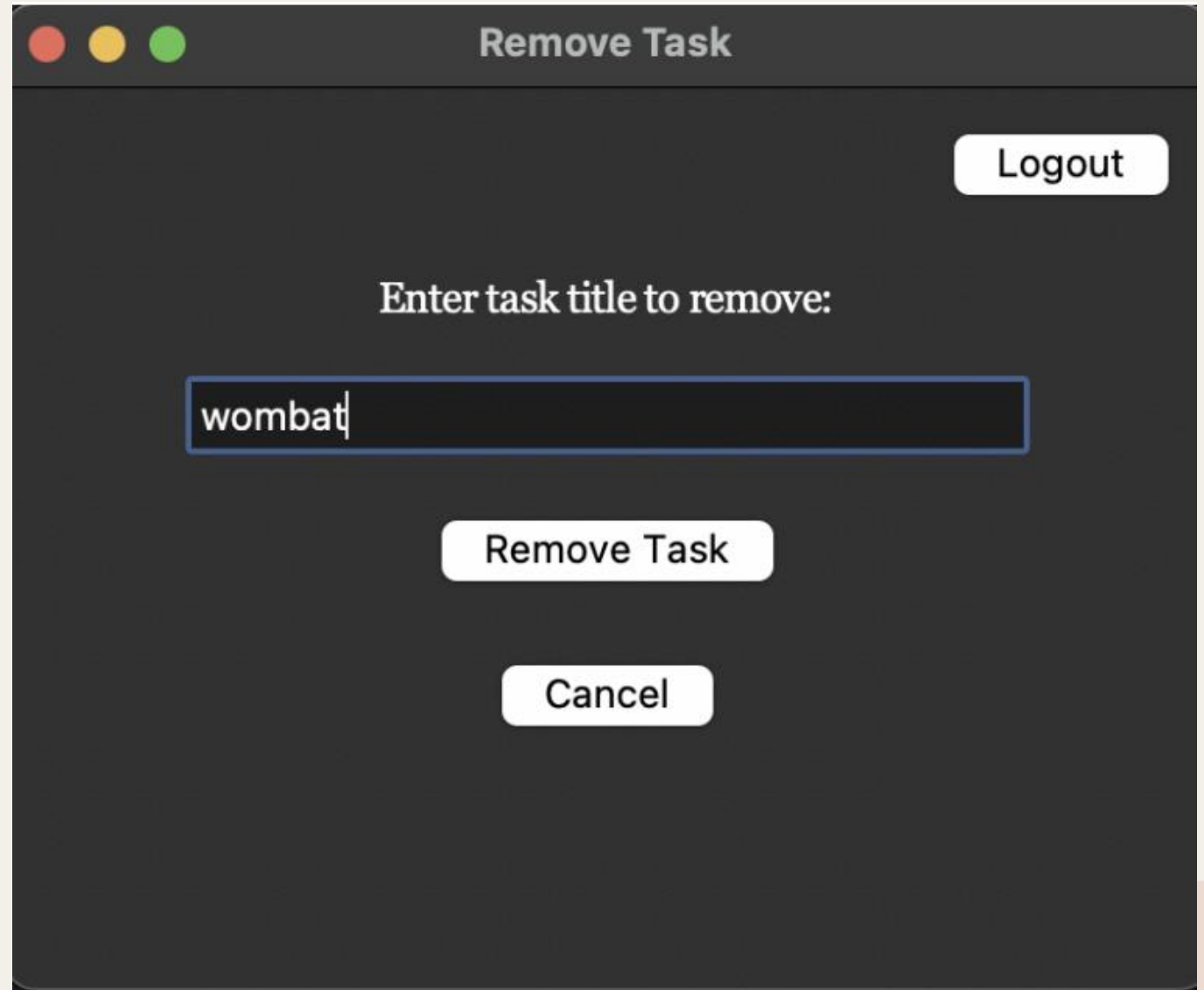
task1

Task Time

11/12

Task Duration

1 hour

Task Description

CMPT assigment 1

Save Changes   Cancel

Remove Task Page:

Task 'wombat' removed.

OK

Remove Task

Logout

Enter task title to remove:

wombat

Remove Task

Cancel
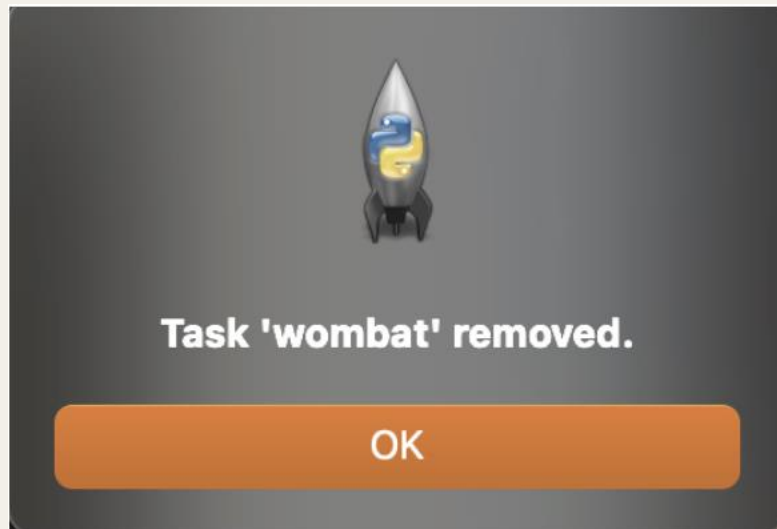
Search Task Page:

No tasks match your search.
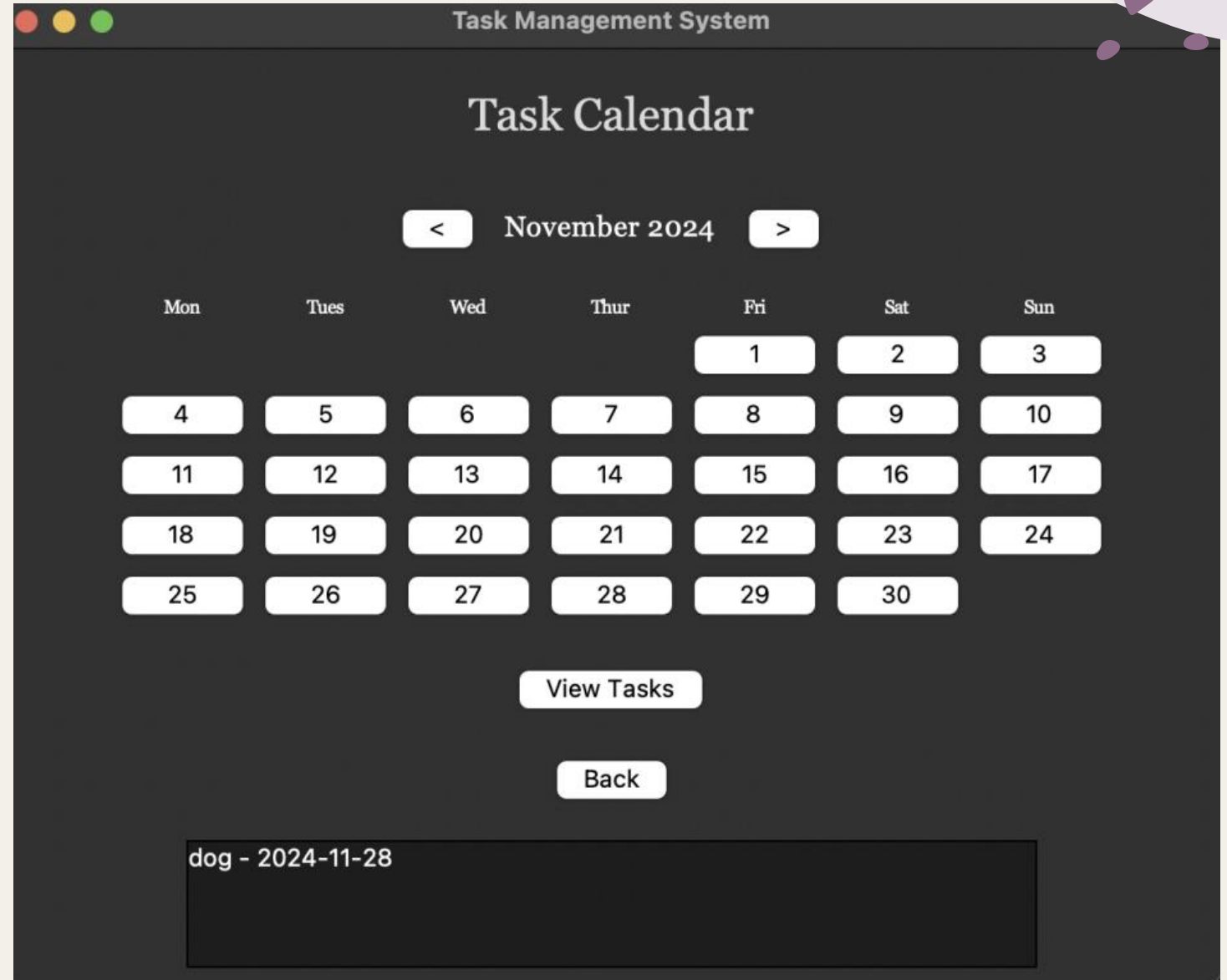
OK

Search for a Task

Search for a task:

Search

Calendar Page:

7. IMPROVED USER INTERFACE DESIGN

Login Page:

Admin Login

Username

Password

Login

Back

User Login

Username

Password

Login

Back

mamap
task management

About Us

Admin Login

User Login

Register

Exit

Main Menu Page:

Welcome to Task Management System

Add Task

Edit Task

Remove Task

Search Tasks

View Calendar

User Management

Log out

Add Task Page:

Title:

Time:

Duration:

Description:

Save Task

Cancel

Remove Task Page:

Logout

Enter task title to remove:

Remove Task

Cancel

Edit Task Page:

Task Title	Time	Duration	Description
Walk Dog	10AM	2 Hours	Walk Rocky

Logout   Close

Edit Selected Task

Search Task Page:

Enter Task Title:

Walk Dog

Logout

Walk Dog

Search

Close

Calendar Page:

Task Calendar

< December 2024 >

Mon	Tues	Wed	Thur	Fri	Sat	Sun
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Walk the Dog - 2024-12-01

Back

8. LIVE DEMO

9. REFERENCES

[1] https://www.lucidchart.com/blog/flowchart-templates

[2] https://github.com/RezaSadeghiWSU/CMPT-120L-112_Task-Management-System_Maddie-Gaby

THANK YOU!