

Introduction

The Scheduler program is designed to assist individuals in effectively managing their daily routines. Developed using C with the GTK toolkit, this application provides a user-friendly interface that enables users to store and organize their activities seamlessly. The Scheduler not only allows users to input various tasks but also offers the functionality to retrieve a complete daily schedule or specific activities based on designated times. By streamlining the process of daily planning, the Scheduler aims to enhance productivity and promote a structured approach to time management.

Description

The Scheduler program is a user-friendly application designed to help individuals organize and manage their daily activities effectively. With its straightforward interface, users can easily input their schedules, view their full routines, and check for specific activities at designated times.

Adding activities is a seamless process. Users are prompted to enter a list of tasks along with their corresponding start and end times, making it easy to create a structured daily agenda. Once the activities are recorded, users can retrieve their entire daily schedule at any time. The application reads from a saved text file, displaying activities alongside their scheduled times for easy reference.

In addition to viewing the full schedule, the program allows users to look up activities scheduled for specific times. By simply entering a time, users can check their schedule to find out what activities are occurring at that moment. This feature is particularly helpful for those with busy routines, ensuring they can stay on track throughout the day.

The Scheduler boasts an intuitive graphical interface built with the GTK toolkit, ensuring that even individuals who may not be very tech-savvy can navigate the application with ease. The layout includes buttons and entry fields that guide users through the scheduling process without any confusion.

To manage data efficiently, the program stores the user's schedule in a text file named after the user, facilitating easy access and updates. Users can also enjoy the flexibility of time formats, as the application converts times between 12-hour and 24-hour formats, making it accessible to a wide range of users.

Furthermore, the program includes an "About Us" section that provides information about its features and encourages user feedback. This transparency helps users feel more connected to the application and its developers.

Overall, the Scheduler program aims to simplify daily planning and enhance time management skills. By providing an organized way to manage activities, the program empowers users to focus more on their tasks and less on the logistics of planning, ultimately promoting productivity and a balanced lifestyle. With its combination of functionality and ease of use, the Scheduler stands out as a valuable tool for anyone looking to take control of their daily routine.

Features and Functionality

Activity Management : Users can easily add activities to their daily schedule by entering start and end times, along with a description of each task. This straightforward process helps users create a structured agenda tailored to their needs.

Full Schedule View : The application provides a clear display of the entire daily schedule, allowing users to view all planned activities at a glance. This feature aids in comprehensive time management and helps users prioritize their tasks effectively.

Specific Time Lookup: Users can search for activities scheduled at specific times by entering the desired hour and minute. This function ensures that individuals can quickly find out what they should be doing at any given moment, enhancing time awareness.

User-Friendly Interface : Designed with the GTK toolkit, the application features an intuitive graphical interface. The layout includes buttons and input fields that guide users through the scheduling process, making it accessible even for those with minimal technical skills.

Data Storage : Each user's schedule is saved in a text file named after them, facilitating easy access to their personalized schedules. This method ensures that users can manage their data without confusion.

Time Format Conversion : The application automatically converts between 12-hour and 24-hour formats, allowing users to input and view times in their preferred format. This feature enhances user comfort and understanding.

Feedback Mechanism : An "About Us" section offers insights into the application's features and encourages users to provide feedback. This interaction fosters a sense of community and connection between users and developers, contributing to future improvements.

Visual Elements : The inclusion of engaging visuals and a well-organized layout enhances the overall user experience. Aesthetic design choices make the application more inviting and enjoyable to use..

Used Framework

The Scheduler application is built using the GTK (GIMP Toolkit), a powerful and widely-used framework for creating graphical user interfaces. GTK provides a comprehensive set of tools and widgets that allow developers to design visually appealing and highly functional applications across various platforms.

User Interface Overview

Main Window : When the Scheduler application is launched, a main window titled "Scheduler" appears, set at a size of 600 by 700 pixels. The interface features an attractive background image and displays four buttons: "Add Schedule" for entering new activities, "Print Full Schedule" for viewing the complete schedule, "Show Activity (Specific Time)" for querying specific activities, and "About Us" for information about the application. This layout promotes clarity and ease of navigation, ensuring a user-friendly experience.



Add Schedule window : When the user clicks the "Add Schedule" button in the main window, a new window titled "Add Schedule" appears, allowing users to create a new schedule by entering their name and the number of activities they wish to include. After inputting this information, they can click the "Submit" button, which triggers the program to open a new interface for entering details about each activity with duration. Successful submission results in a confirmation message, indicating that the schedule has been added successfully.

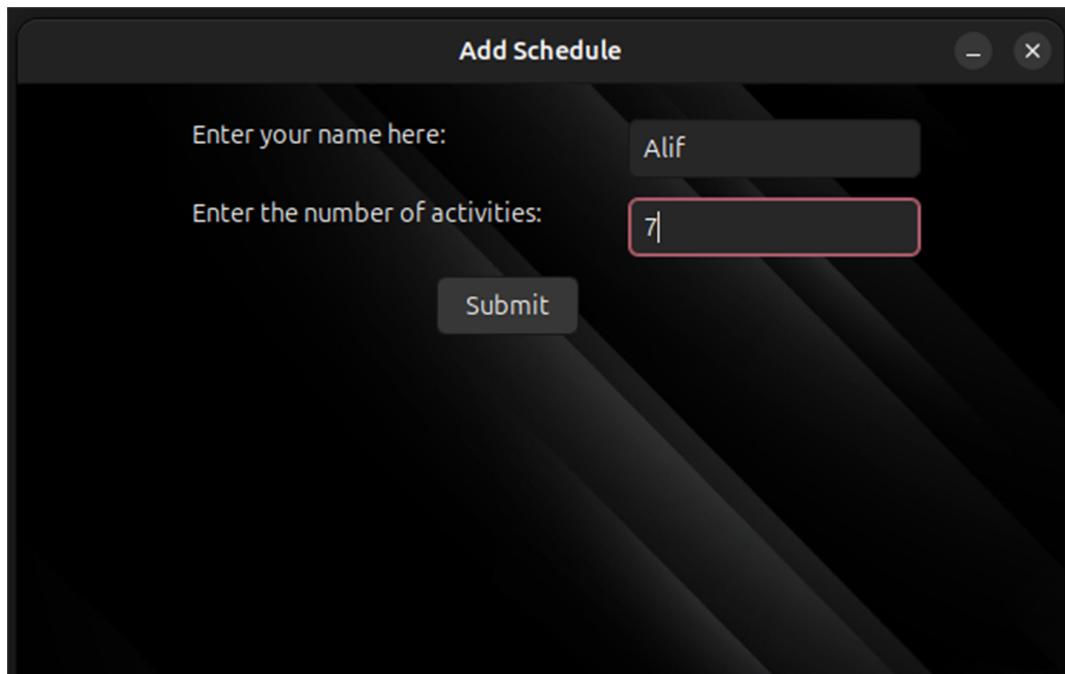


Fig : Add Schedule window

Person name : Alif	
8:30AM -- 8:59AM	Breakfast
9:00AM -- 9:29AM	On the way
9:30AM -- 10:59AM	Software development
11:00AM -- 12:29PM	Algorithm
12:30PM -- 12:59PM	Namaz
1:00PM -- 2:29PM	Math
2:30PM -- 3:59PM	Numerical method lab

Fig : Sample schedule for input

Add Schedule

Enter starting time of activity no. 1:

Enter hour: 8

Enter minute: 30

Select AM/PM: AM ▾

Enter activity: Breakfast

Enter starting time of activity no. 2:

Enter hour: 9

Enter minute: 0

Select AM/PM: AM ▾

Enter activity: On the way

Add Schedule

Enter starting time of activity no. 3:

Enter hour: 9

Enter minute: 30

Select AM/PM: AM ▾

Enter activity: Sofware development

Enter starting time of activity no. 4:

Enter hour: 11

Enter minute: 0

Select AM/PM: AM ▾

Enter activity: Algorithm

Enter starting time of activity no. 5:

Enter hour: 12

Enter minute: 30

Select AM/PM: PM ▾

Enter activity: Namaz

Enter starting time of activity no. 6:

Enter hour: 1

Enter minute: 0

Select AM/PM: PM ▾

Enter activity: Math

Enter starting time of activity no. 7:

Enter hour: 2

Enter minute: 30

Select AM/PM: PM ▾

Enter activity: Numerical method lab

Enter the end time:

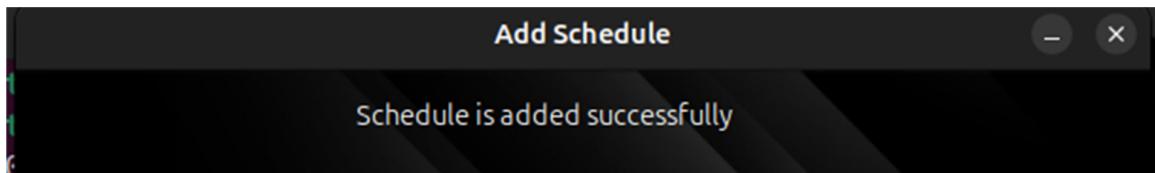
Enter hour: 3

Enter minute: 59

Select AM/PM: PM ▾

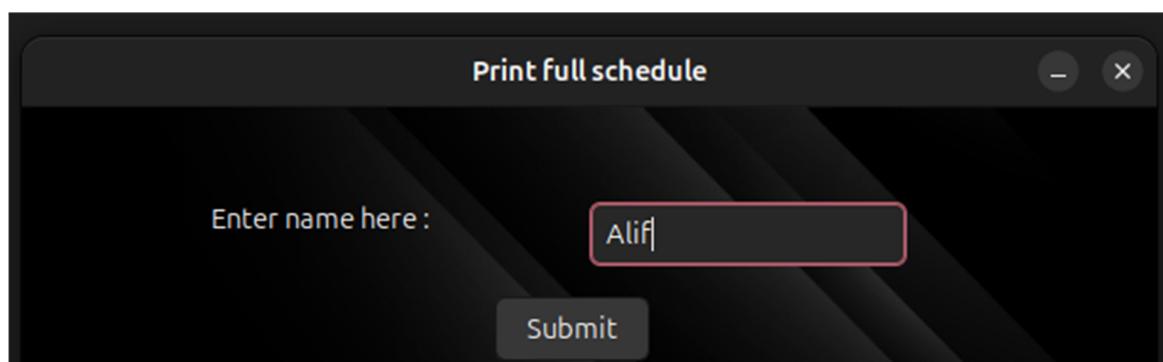
Submit

Fig : Inserting activities with duration

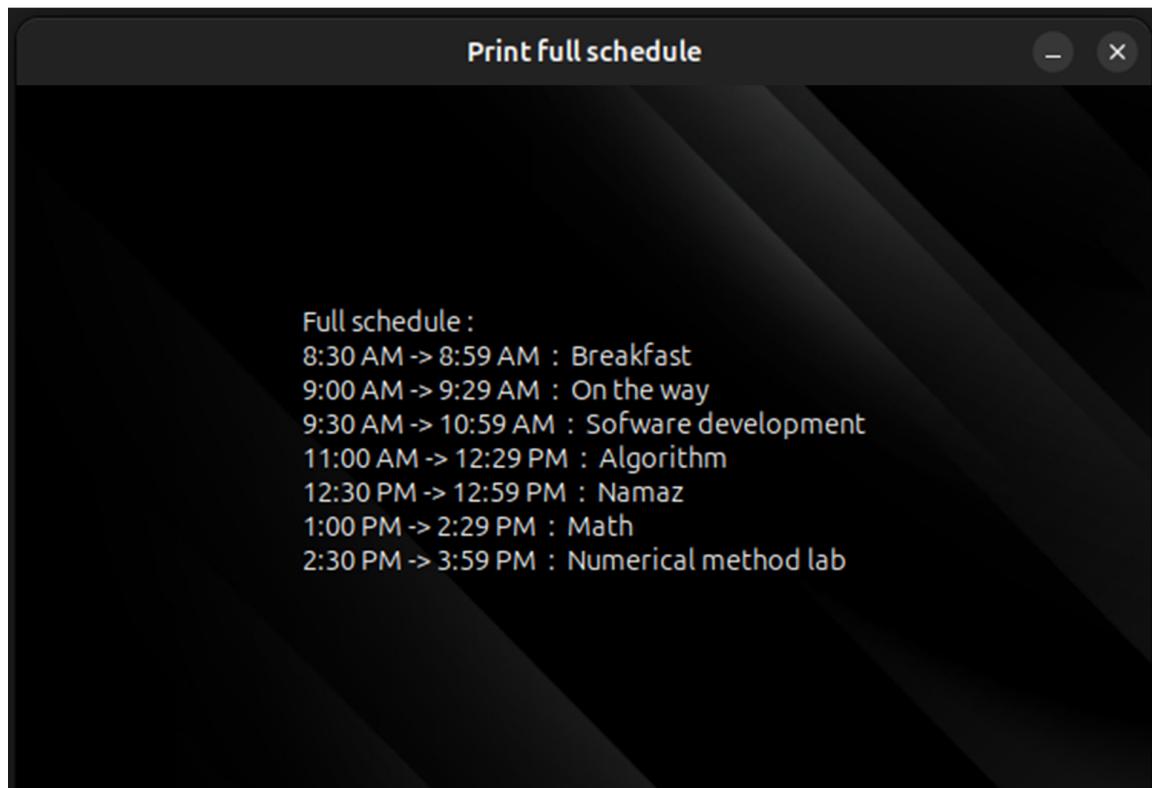


confirmation message

Print Full Schedule window : When the user clicks the "Print Full Schedule" button in the main window, a new window titled "Print Full Schedule" appears, allowing users to enter their name to retrieve their saved schedule. After entering the name, clicking the "Submit" button prompts the program to search for the corresponding schedule file. If found, the schedule is displayed in a scrollable area, presenting the full list of activities along with their respective times.

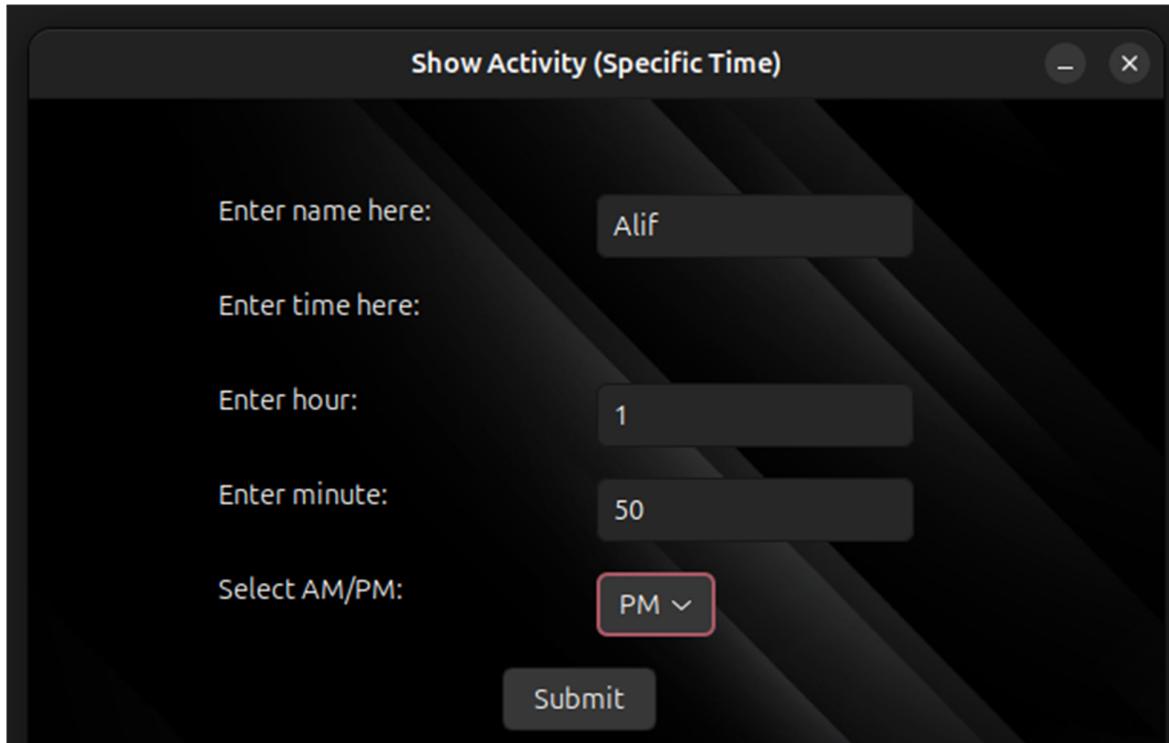


inserting name of schedule

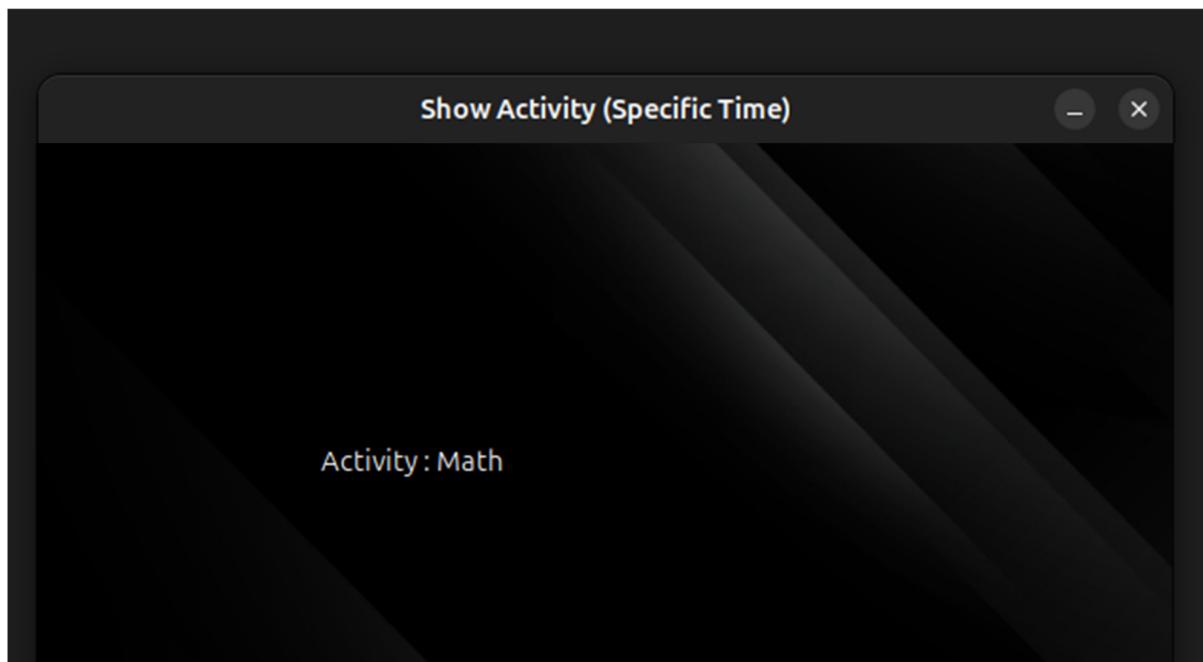


output

Show Activity (specific time) window : When the user clicks the "Show Activity (Specific Time)" button in the main window, a new window titled "Show Activity (Specific Time)" opens, enabling users to find out what activity is scheduled for a specific time. Users must enter their name and specify the time by providing the hour, minute, and selecting AM or PM. After filling in these details, clicking the "Submit" button triggers the program to search the schedule for the specified time.



inserting name of schedule and specific time



output

About Us window : When the user clicks the "About Us" button in the main window, a new window titled "About Us" opens, providing information about the application and its developers. This window features a background image and includes a label with a hyperlink that directs users to the project's GitHub page for further information and feedback. The interface is designed to be simple and informative, allowing users to learn more about the application and its development, fostering a connection between the users and the creators.



User Manual

get the code : You can easily reach our repository from about us window and download the source code .

C Compiler: Ensure you have a C compiler like GCC installed on your system.

GTK Development Libraries: Install the GTK libraries to create the GUI. For Linux, you can typically install these using your package manager. on Ubuntu, you can run :
`sudo apt-get install libgtk-3-dev`

Open a Terminal: Navigate to the directory where the source code file is saved.

Compile the Code: Use the following command to compile the source code :
`gcc scheduler.c -o scheduler `pkg-config --cflags --libs gtk+-3.0``

Run the Executable: After successful compilation, execute the application by running :
`./scheduler`

Conclusion

In conclusion, the Scheduler application is a user-friendly tool that simplifies daily activity management. Utilizing GTK for its graphical interface, it allows users to effortlessly add, view, and manage schedules. Each feature is designed to enhance user experience and promote organization in our fast-paced lives.

This project showcases practical C programming and GUI development while empowering users to take control of their time. The Scheduler balances functionality with simplicity, inviting a more organized approach to daily routines. With potential for future enhancements, it lays a strong foundation for continuous improvement in personal time management solutions.