



# TASK TRACKER

**Open Source Practice Project**

**MEMBERS:**

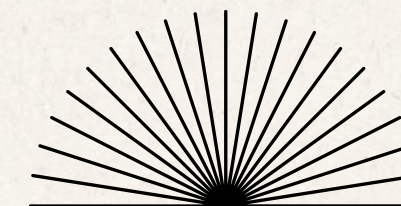
413854927 周瑋霖  
412850173 梁浚祐  
413854620 藍亞力  
413854885 石黑翔平  
412850215 薛竣琄

**GITHUB:**

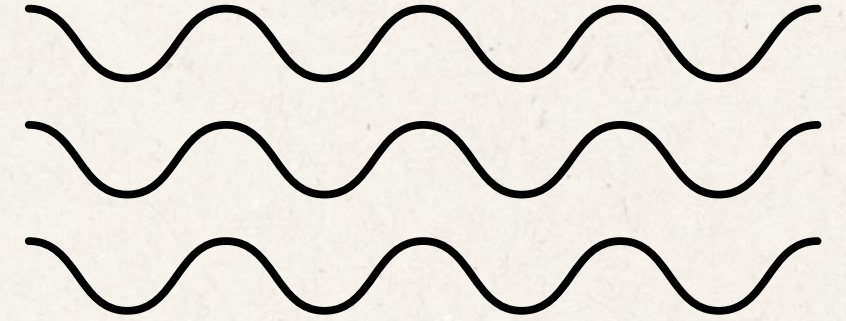
[github.com/itsYali/task-tracker](https://github.com/itsYali/task-tracker)

**YOUTUBE:**

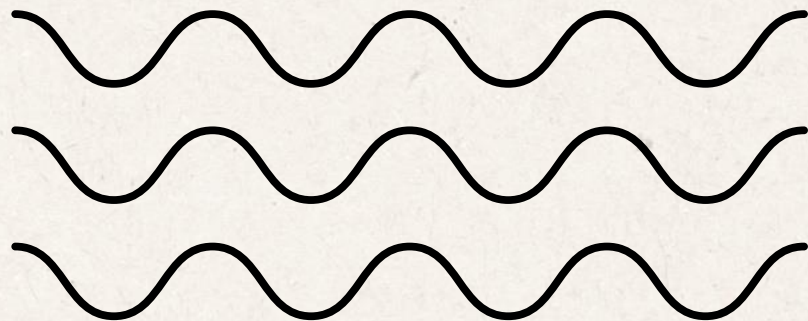
<https://youtu.be/vhsB4v5hpGQ>







# Designing the Web App





# Introduction

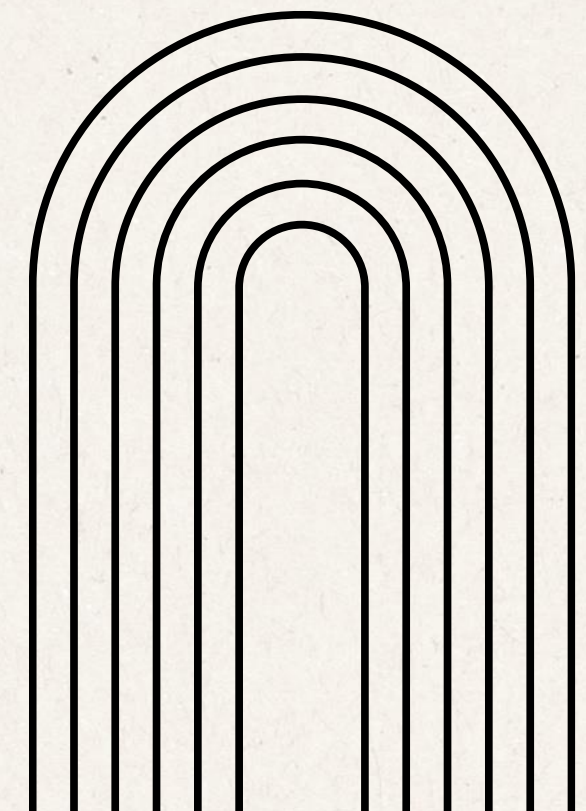
Task Tracker is a simple web-based application that helps users manage and track their tasks

## Project Goals

Allow users to add tasks, set target dates, mark tasks as completed

Tasks can be filtered by status (complete, incomplete)

Implement a user registration and login system for managing personal list of tasks





# Application Design

Follows a client-server model where most processing is handled on the server side

## Architecture:

PHP for backend logic

MariaDB for data storage and management

CSS & JavaScript for frontend

**Browser**



**PHP Web-Server**



**MySQL Database**



# Application Design

Follows a client-server model where most processing is handled on the server side

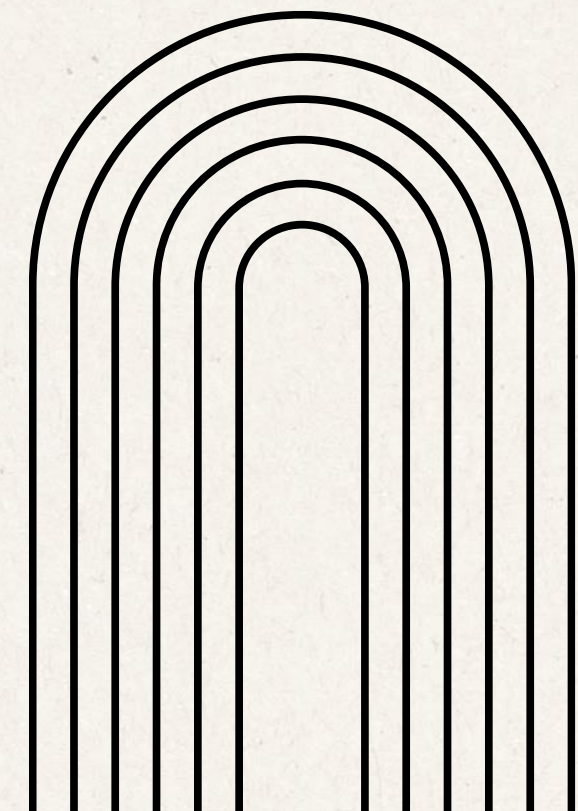
## Main Modules:

User Authentication (registration, login)

Task Management (create, complete, filter tasks)

Personal Dashboard (shows user's tasks and status)

Data Validation (ensures correct input)





# Database Schema

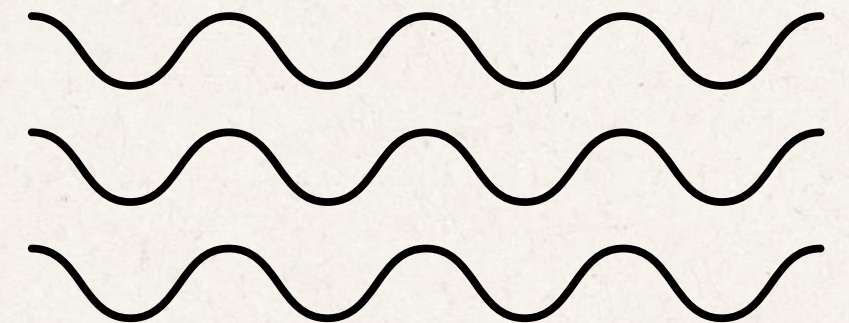
users: user\_id, username, password\_hash

tasks: task\_id, user\_id, task\_name, target\_date, is\_completed, completed\_date, created\_at

## Relationship

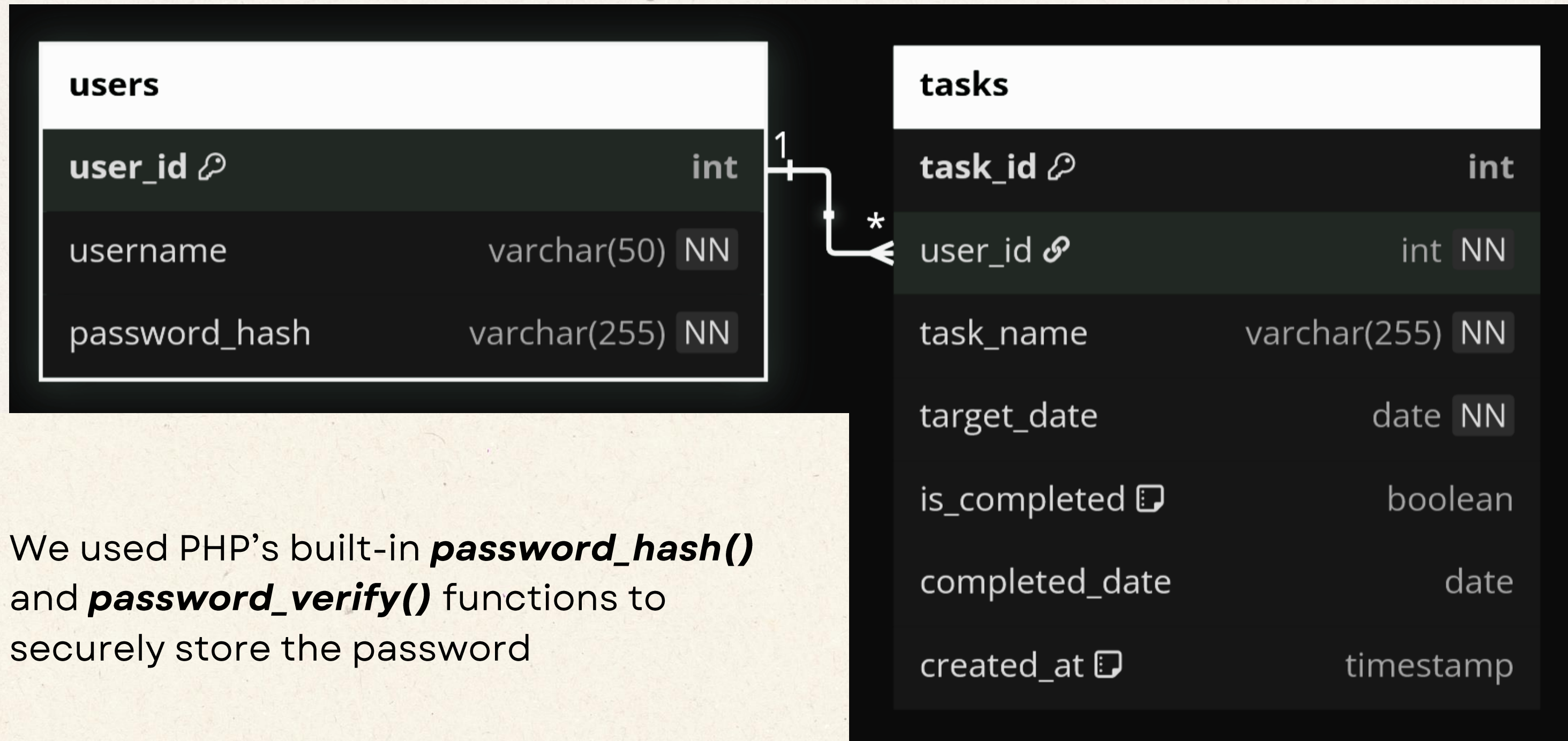
Users have a **1 : Many** relationship with Tasks

Tasks have a **Many : 1** relationship with Users





# Entity Relationship Diagram



We used PHP's built-in ***password\_hash()*** and ***password\_verify()*** functions to securely store the password





# Data Validation

## Client-side JavaScript

Ensures required fields are filled

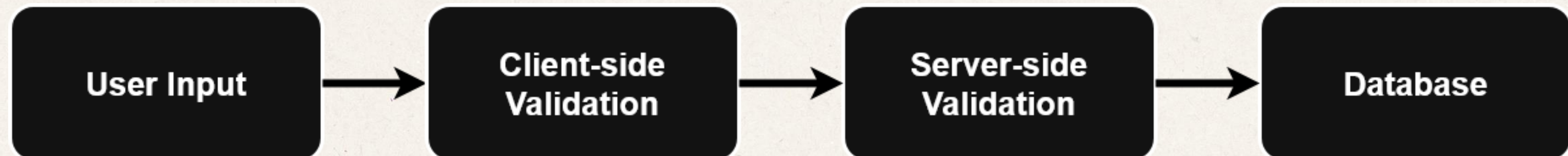
Checks password confirmation

Ensures date formats are valid

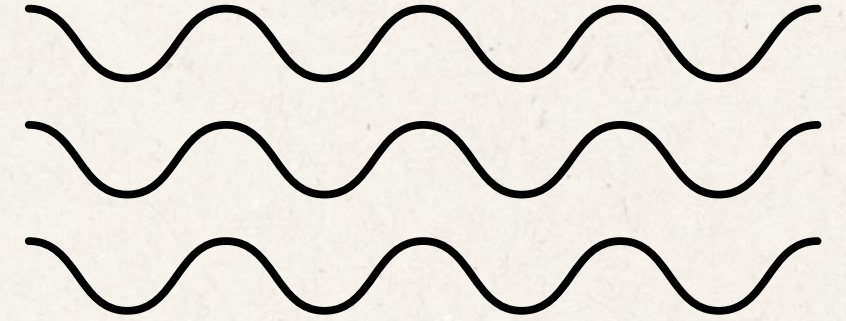
## Server-side (PHP)

Validates all user input

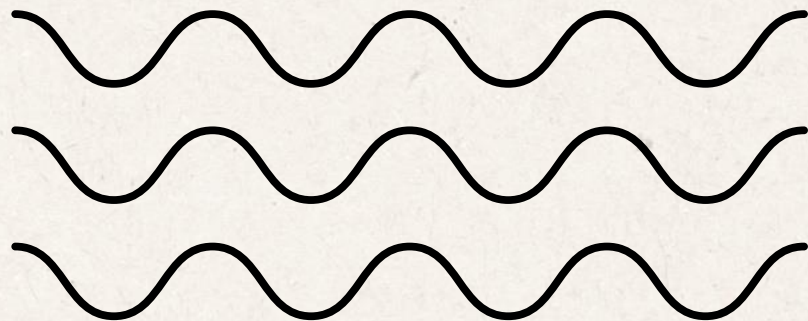
Checks for duplicate usernames  
on registration







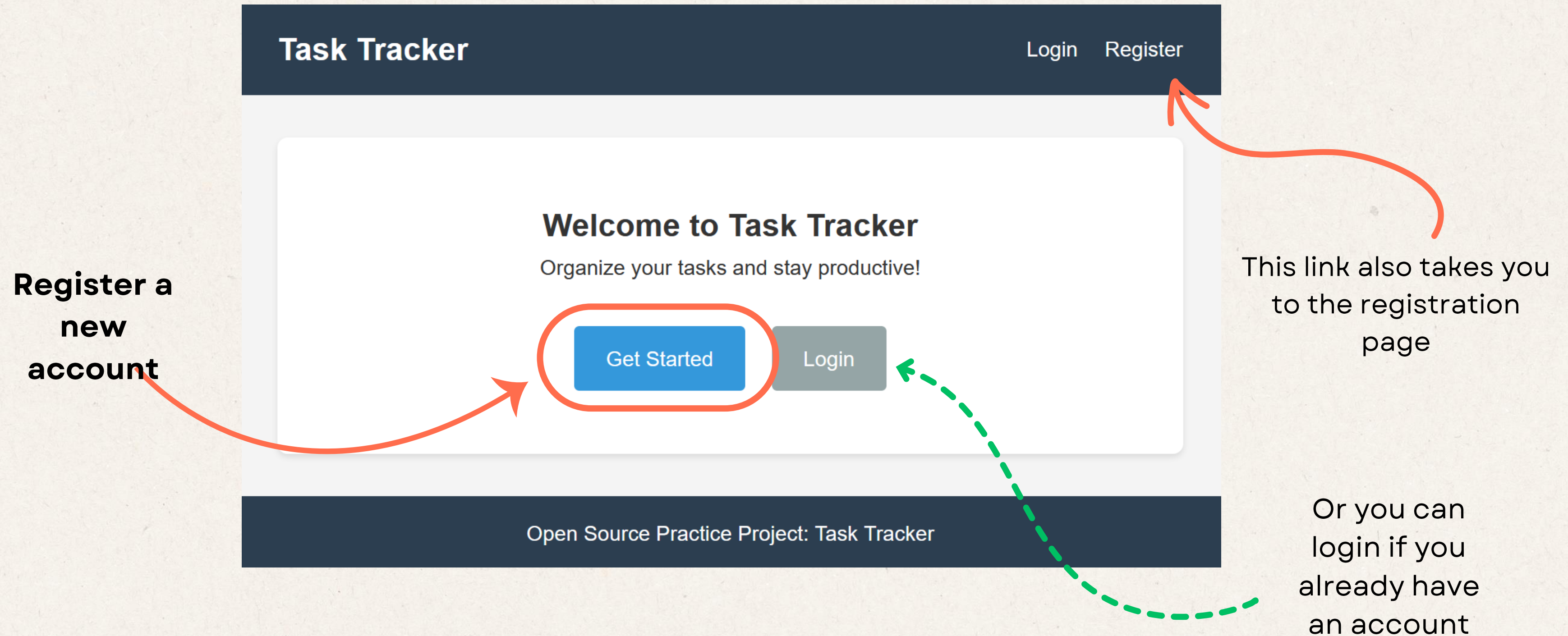
# Using the Application





# Homepage

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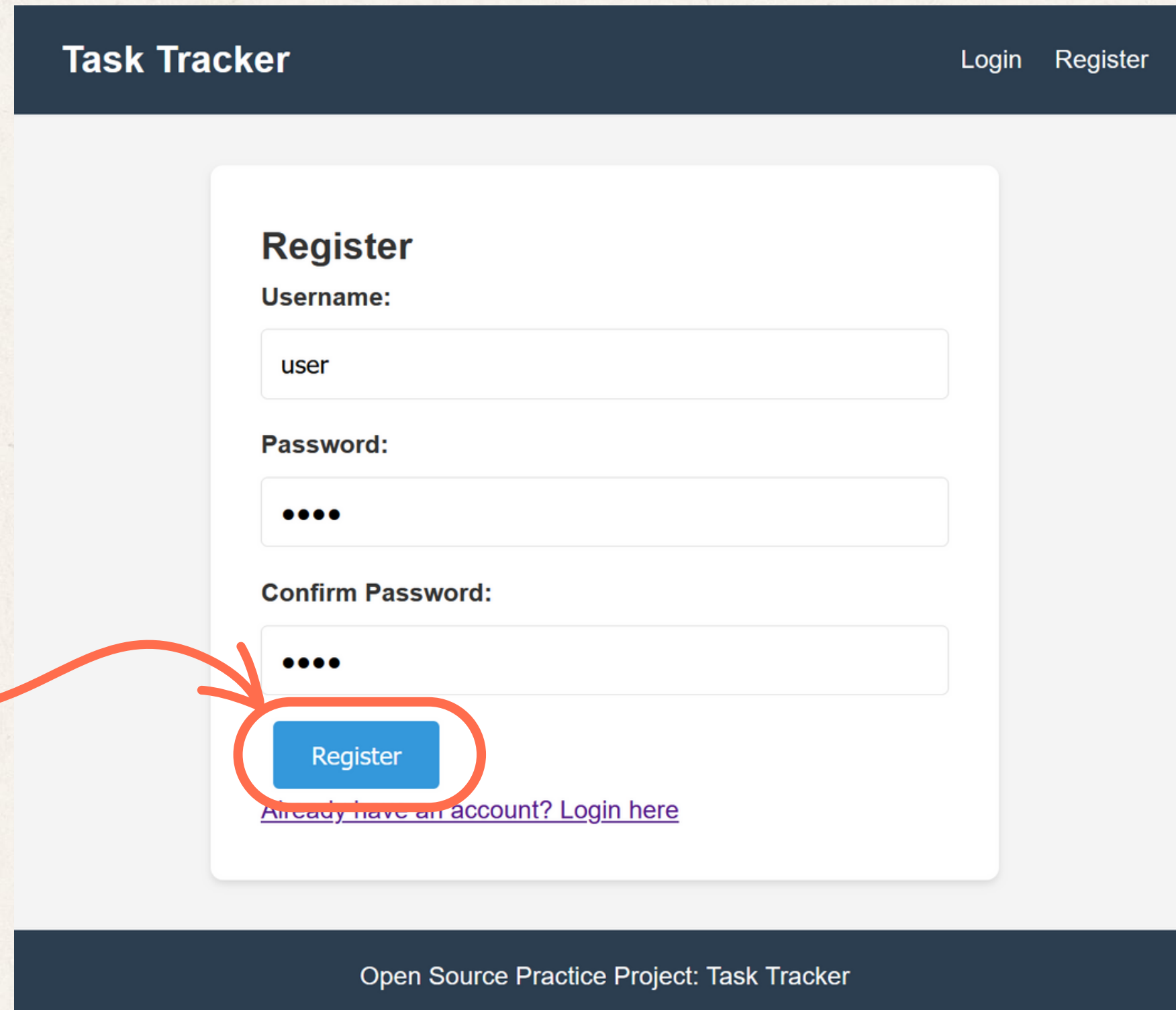


# User Registration

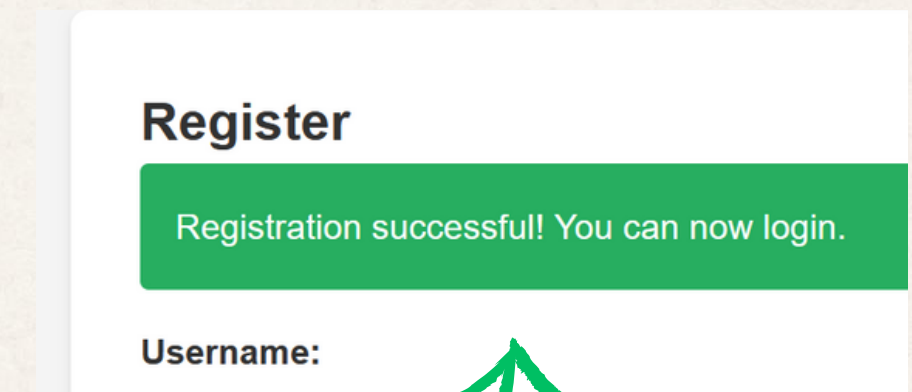
11

After filling out the  
registration form

**Click  
Register**



The screenshot shows the 'Task Tracker' application interface. At the top, a dark blue header contains the text 'Task Tracker' on the left and 'Login Register' on the right. The main content area is light gray and features a white registration form. The form has a title 'Register' and three input fields: 'Username:' with the value 'user', 'Password:' with four dots, and 'Confirm Password:' with four dots. Below these fields is a blue 'Register' button, which is circled in red. An orange arrow points from the text 'Click Register' to this button. At the bottom of the form, there is a link that says 'Already have an account? Login here'. A dark blue footer at the very bottom contains the text 'Open Source Practice Project: Task Tracker'.



This screenshot shows a confirmation message after successful registration. It features a green banner with the text 'Registration successful! You can now login.' Below the banner, the label 'Username:' is visible, with a green arrow pointing upwards towards the banner.

Message on  
successful account  
creation

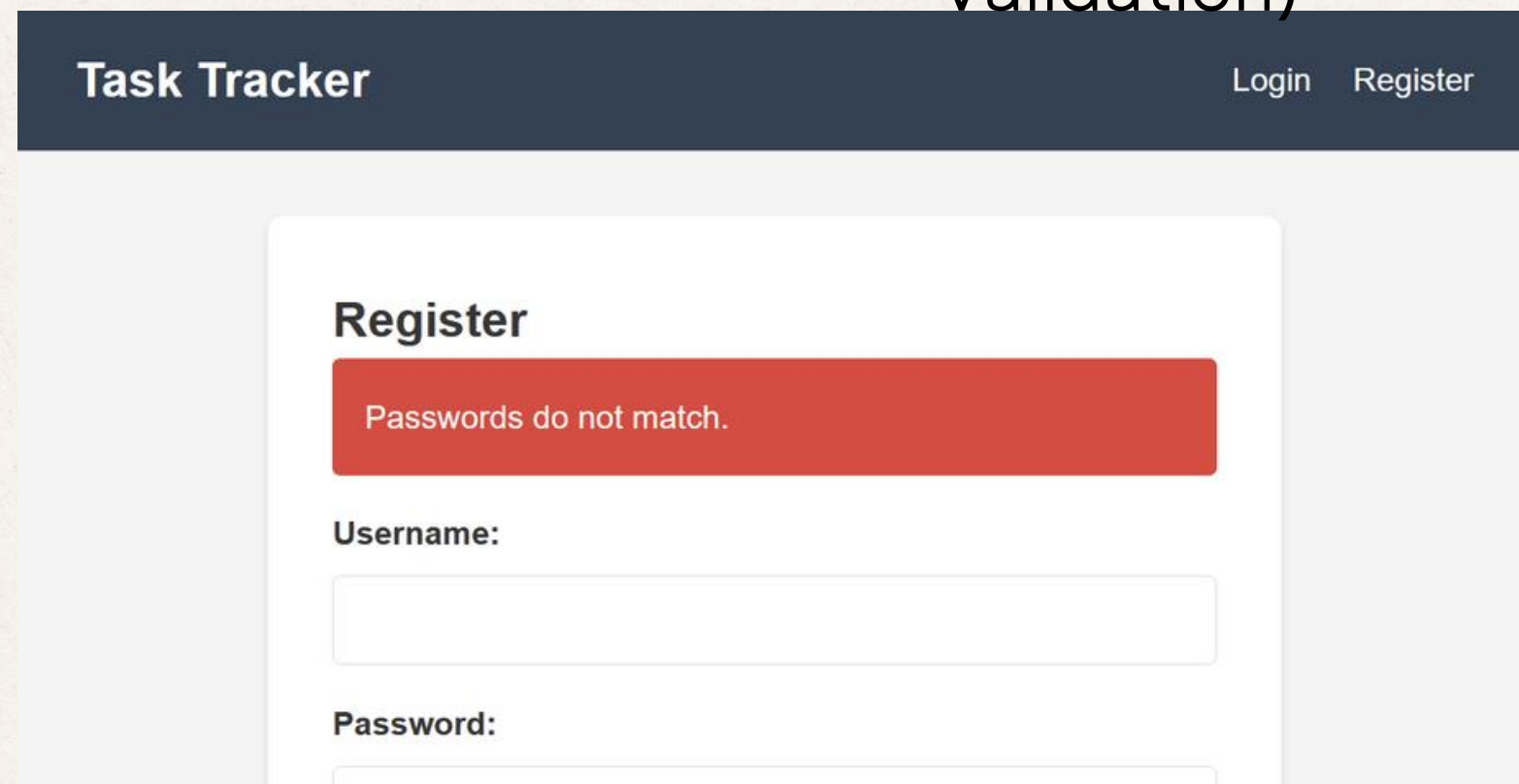


# User Registration

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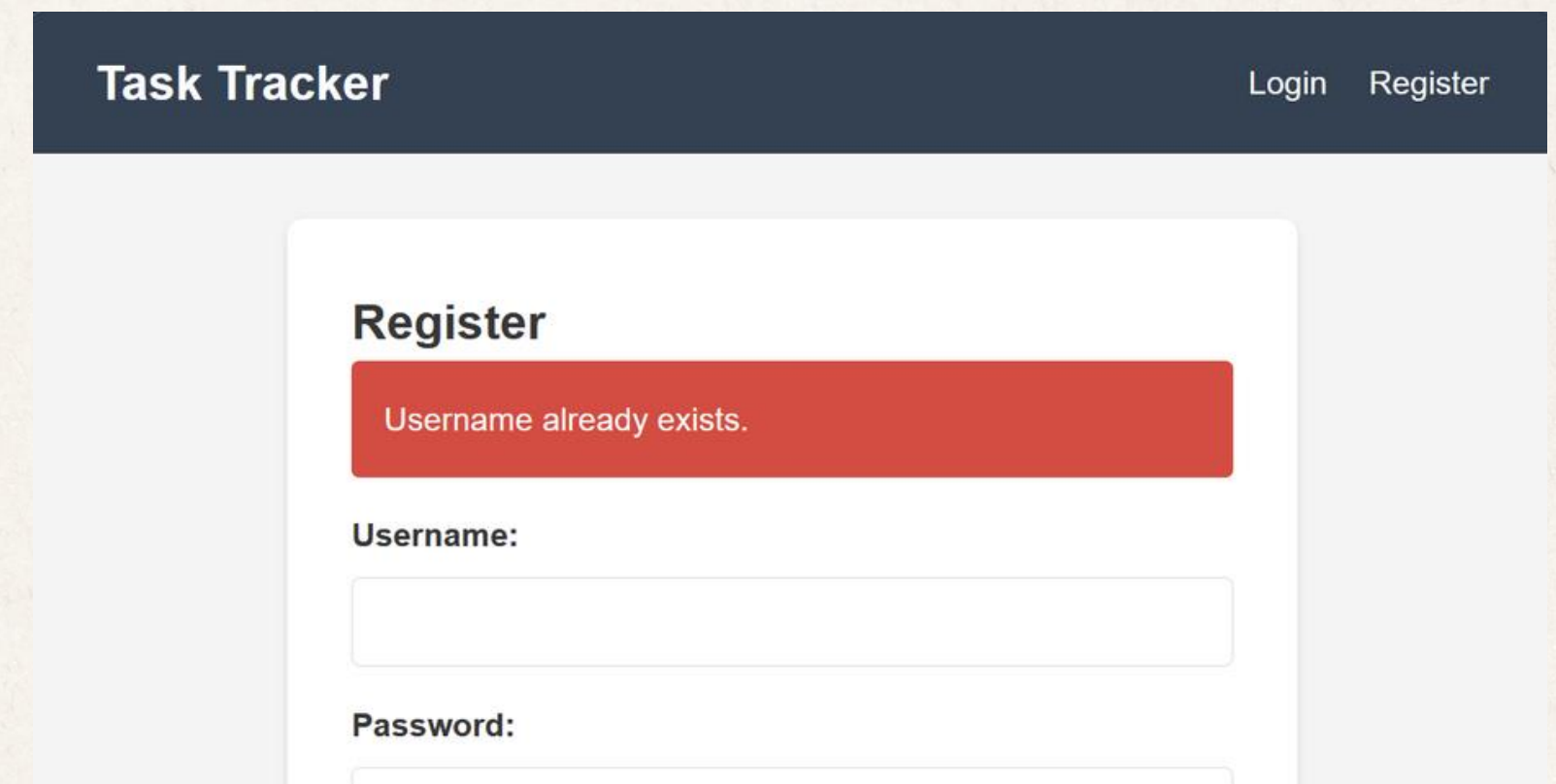
## Error Messages

(Data  
Validation)



The screenshot shows a web application interface for 'Task Tracker'. At the top, a dark blue header bar contains the text 'Task Tracker' on the left and 'Login Register' on the right. Below the header, the main content area has a light gray background. In the center, there is a white rounded rectangle representing the registration form. The form is titled 'Register' in bold. Below the title, a red error message box displays the text 'Passwords do not match.'. Underneath the error message, there are two input fields: 'Username:' followed by an empty text box, and 'Password:' followed by an empty text box.

- Passwords must match



The screenshot shows the same 'Task Tracker' web application interface as the previous one. The dark blue header bar at the top contains 'Task Tracker' and 'Login Register'. The main content area has a light gray background. In the center, the white registration form is titled 'Register'. A red error message box displays the text 'Username already exists.'. Below the error message, there are two input fields: 'Username:' followed by an empty text box, and 'Password:' followed by an empty text box.

- Username cannot be the same as another user

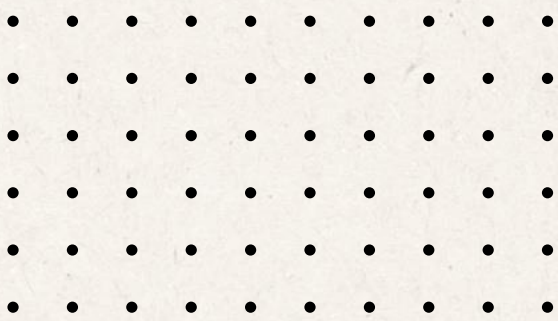


# Login Page

After registration is complete, the user can now login

Enter user and password

Click Login



Task Tracker

LoginRegister

Login

Username:

user

Password:

....

Login

[Don't have an account? Register here](#)

Open Source Practice Project: Task Tracker



# Dashboard

Tasks  
list

Task Tracker

Dashboard   Logout

Welcome, user!

Add New Task

Filter Tasks:

All

Incomplete

Completed

Your Tasks

No tasks found for the selected filter.

Open Source Practice Project: Task Tracker

Click here to  
add a new task

Filter options



# Adding a Task

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After entering the  
task name and  
setting a target date

**Click here  
to  
add the task**

Task Tracker

DashboardLogout

Add New Task

Task Name:

sample task 1

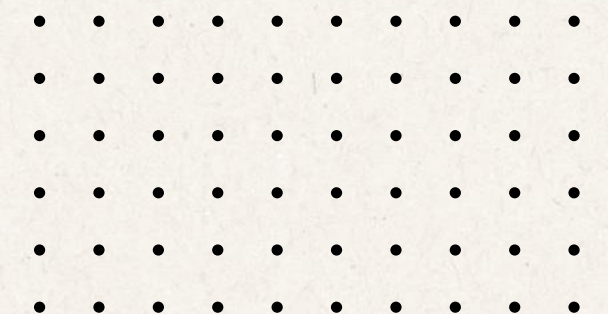
Target Date:

22 / 06 / 2025

Add Task

Cancel

Uses Date type  
for proper date  
handling





# Adding a Task

## Error Messages (Data Validation)

Task Tracker

DashboardLogout

Add New Task

Task Name:

sample task 2

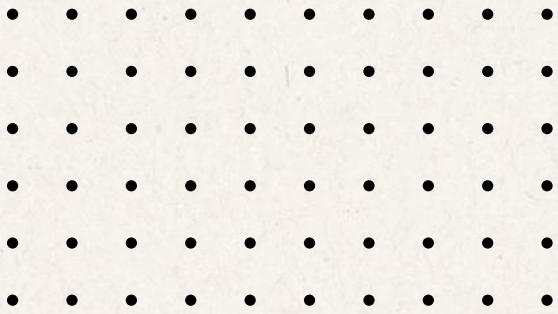
Target Date:

12/ 06 / 2025

Please select a value that is no earlier than 2025-06-13.

Open Source Practice Project: Task Tracker

- Target date cannot be set in the past





# Adding a Task

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After successfully  
adding a task

Click cancel to  
return to the  
dashboard


Task Tracker

DashboardLogout

Add New Task

Task added successfully!

Task Name:

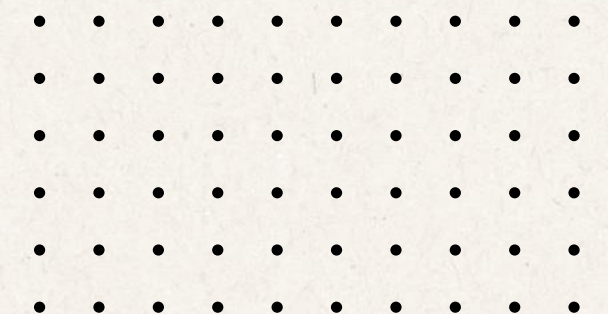
Target Date:  


Add Task

Cancel

Open Source Practice Project: Task Tracker

This link also  
takes user to the  
dashboard





# Dashboard

Task Tracker

DashboardLogout

Welcome, user!

Add New Task

Filter Tasks:

All

Incomplete

Completed

Your Tasks

sample task 1

Target Date: Jun 22, 2025

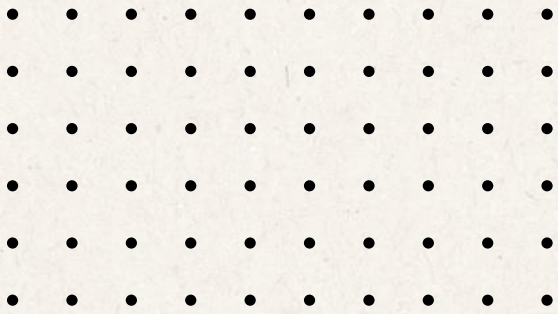
Mark Complete

sample task 2

Target Date: Jun 29, 2025

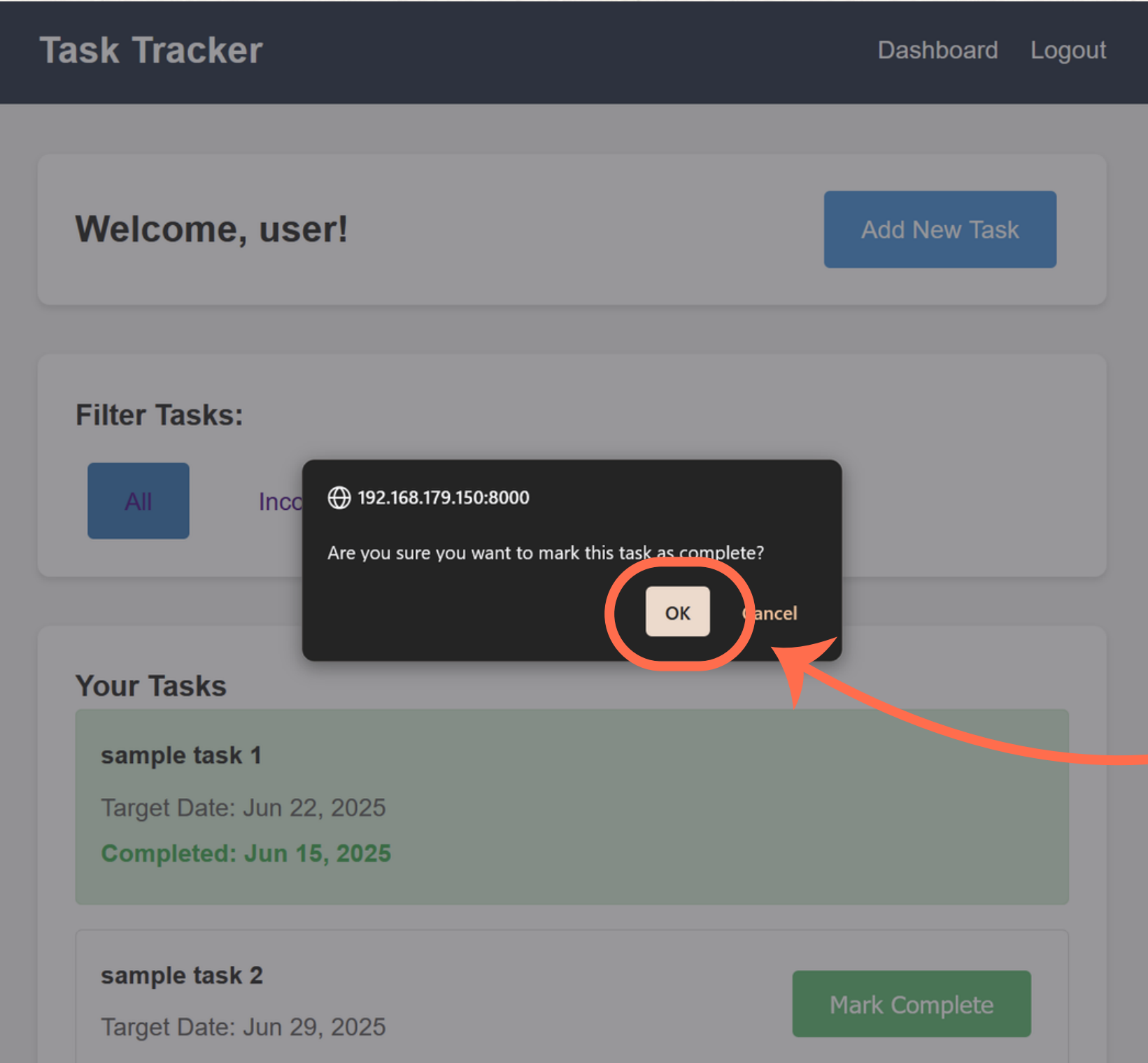
Mark Complete

Click this button  
to mark a task as  
completed



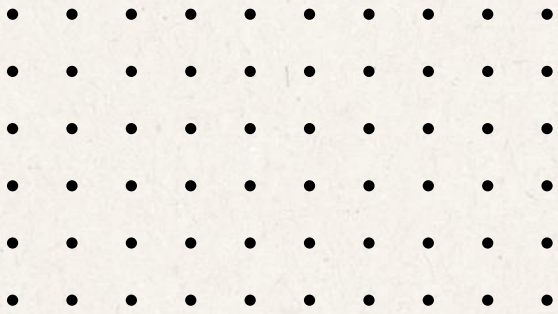


# Dashboard



After clicking Mark Complete, it will ask the user for confirmation

Click OK to confirm





# Dashboard Filter Options

There are filtering options to allow the user to focus on specific tasks

Shows only incomplete tasks

Task Tracker

DashboardLogout

Welcome, user!

Add New Task

Filter Tasks:

All

Incomplete

Completed

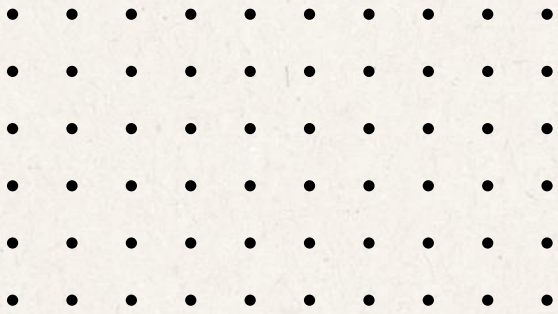
Your Tasks

sample task 2

Target Date: Jun 29, 2025

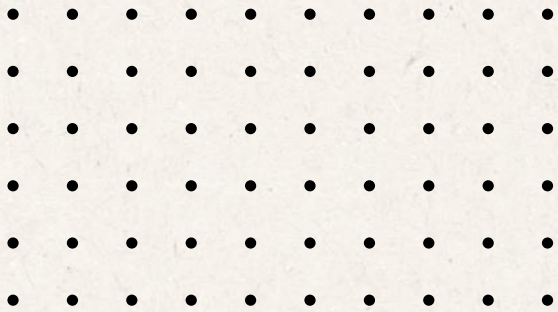
Mark Complete

Open Source Practice Project: Task Tracker





# Dashboard Filter Options



Task Tracker

DashboardLogout

Welcome, user!

Add New Task

Filter Tasks:

AllIncompleteCompleted

Your Tasks

sample task 1

Target Date: Jun 22, 2025

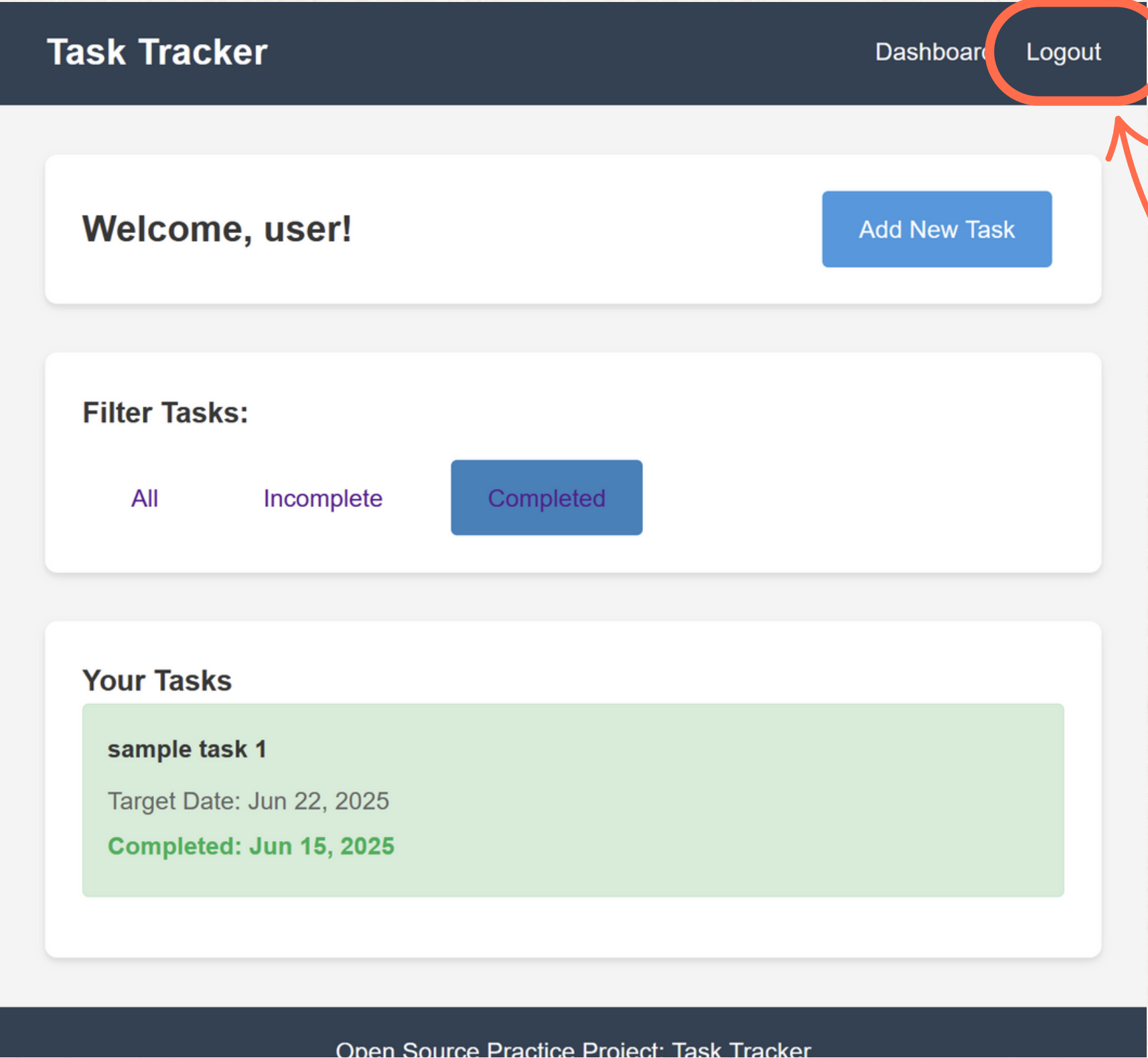
Completed: Jun 15, 2025

Open Source Practice Project: Task Tracker

Shows only completed tasks



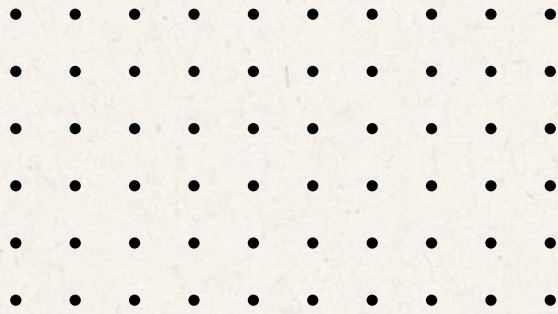
# Dashboard



When done  
using the app

**Click on  
logout**

It will go back to  
the homepage



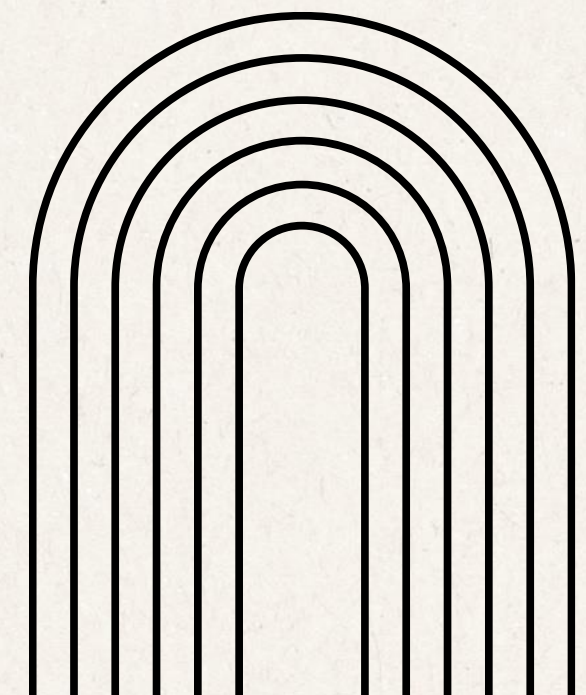


# Conclusion

While it is a simple web app, we still had to go through a lot of documentation on the different aspects in building the application. Our lack of experience in using PHP and MySQL was a challenge but a great opportunity to broaden our knowledge.

We would have liked to implement more features but we ran out of time. Maybe we can keep working on it as a side-project in the future.

Overall, it was an invaluable learning experience. There were a lot of lessons in teamwork, the importance of open source software, and learning how to build a simple app. This was only our **first** attempt at building open source software, our **next** attempts will definitely be much better.





# Thank you!

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