

# Scribble: A Story Sharing & Writing Platform

## Introduction

**Scribble** is a dynamic story-sharing and writing platform designed for individuals who are passionate about reading and writing across various genres. Inspired by platforms like **Wattpad**, **Webnovel**, **Fable**, **Goodreads**, **GitHub**, and **Monkey Type**, Scribble creates a space for creative expression, community interaction, and author support. It allows users to write, publish, support, collaborate, and interact with stories in an engaging and user-friendly environment.

## Motivation

As avid readers and frequent users of apps like **Goodreads**, **Fable**, **Wattpad**, and **Webnovel**, my friends and I realized the need for a platform that not only aligns with our interests but also reflects our passion and creativity. This inspired us to build **Scribble**, a platform that combines features from our favorite applications while introducing new, innovative concepts that make reading and writing more interactive and supportive.

## Objectives

- Build a platform for authors and readers to connect through storytelling.
- Allow community-driven interactions via book-based groups.
- Enable users to support each other's work financially or emotionally.
- Create genre-based weekly contests to encourage creativity.
- Implement real-time communication using multithreading and socket programming.
- Provide gamified experiences to keep users engaged.

## Features (Including Multithreading and Socket Programming)

### Core Platform Features

- **Support System:** Users can support writers whose work they find interesting.
- **Author Collaboration:** Users can co-author books with others on the platform.
- **Interactive Reader Community:** Readers can comment on and rate books.
- **Community Groups:**
  - Each book has a dedicated group for discussion.

- A default group exists for physical book exchange.
- Users can create custom book groups and invite others to join.
- **Profile View:**
  - Modify personal information
  - View history, saved books, and supporter records
  - Track created books, drafts, collaborations, and group memberships

### **Weekly Genre-Based Contest System**

- Contests are available for 4 genres: **Fantasy**, **Thriller Mystery**, **Youth Fiction**, and **Crime Horror**.
- Each user can participate once per week.
- Voting is only available during the current week.
- At the end of the week:
  - Contest results are shown in a “Previous Week” section.
  - Top 3 winners are determined by vote count and ranked accordingly.
  - These winners are temporarily restricted from participating for the next two weeks to ensure fairness and variety.
- **Rules and Logic:**
  - Entry submission and voting are disabled after the week ends.
  - The previous week becomes read-only to display results without allowing further interaction.

### **Multithreading Implementation**

Multithreading is used to manage real-time communication without freezing the UI and to handle multiple users simultaneously:

- **Server-Side:** A fixed-size thread pool manages incoming client connections efficiently. Each client connection is assigned to a handler running in a separate thread. Messages are read and broadcast to the correct group while being saved in the database. A thread-safe structure ensures that multiple users can be managed reliably in parallel.

- **Client-Side:** A dedicated thread listens for incoming messages from the server. This background thread ensures that the JavaFX UI remains responsive, and messages received are updated on the UI safely without interrupting user interactions.

## Socket Programming Implementation

Sockets enable real-time interaction between the server and clients using TCP-based communication:

- **Server-Side:** The server listens for client connections and assigns each new client to a communication handler. Clients are grouped by book discussion groups. Messages are received, broadcasted to the group, and saved in the database. When a client disconnects, they are removed from the group safely.
- **Client-Side:** Clients connect to the server and identify themselves with user and group information. They can send messages to the group and receive real-time updates. The chat interface updates messages in real-time, distinguishing between the sender and other participants.

## Game Section

To keep the platform engaging, two simple but enjoyable games are included:

### 1. Puzzle Game:

- Users can solve puzzles using book covers.
- Multiple difficulty levels are available: 3x3, 4x4, and 6x6.

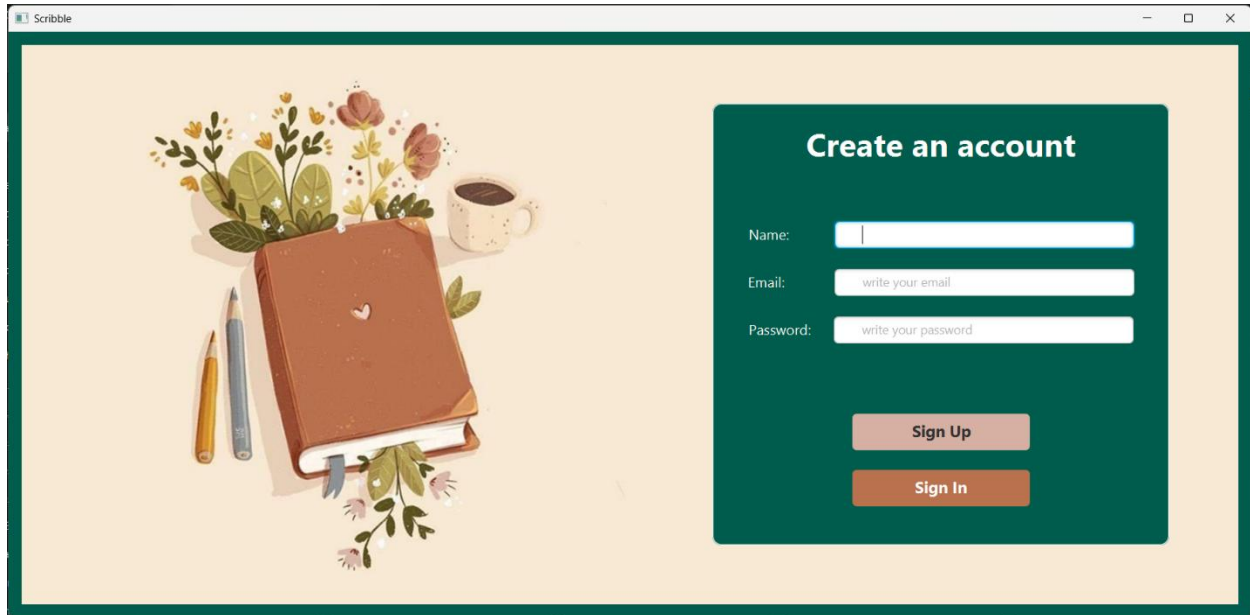
### 2. Tic-Tac-Toe Game:

- Users play against the computer.
- Input is automatically cleared after 20 seconds.
- The computer is designed with slightly higher chances of winning using strategic logic, making the game more challenging and engaging over time.

## Screenshots of UI

### These are the UI design Screenshots of Scribble

SignIn and SignOut page



Scribble

### Create an account

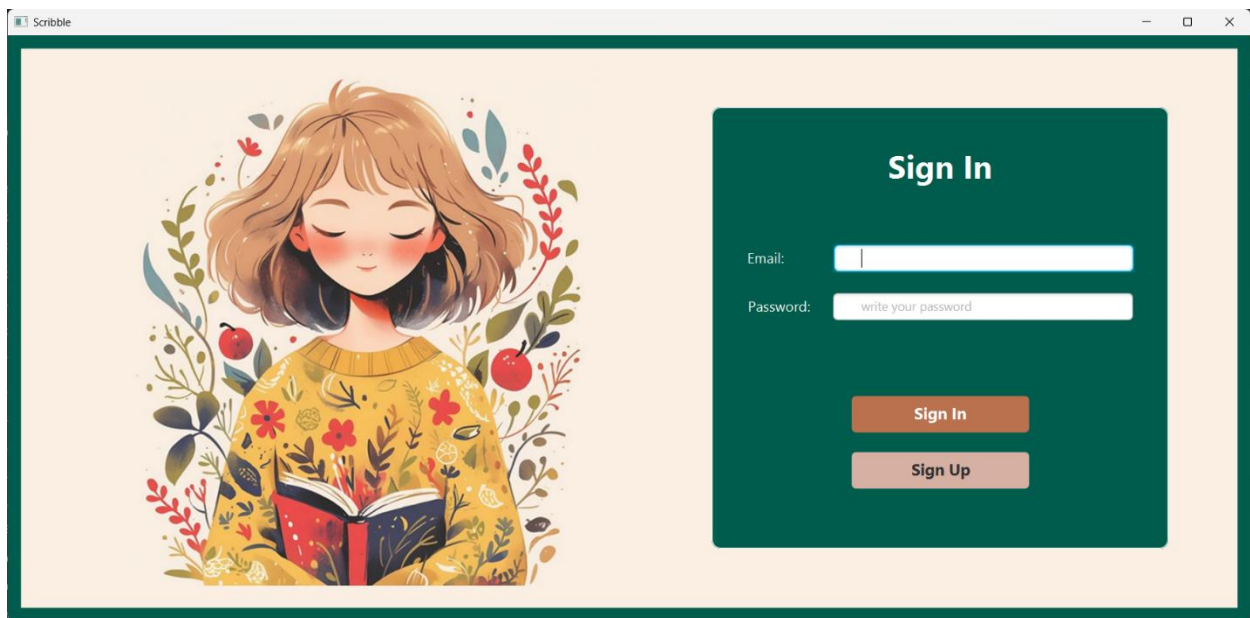
Name:

Email:

Password:

Sign Up

Sign In



Scribble

### Sign In

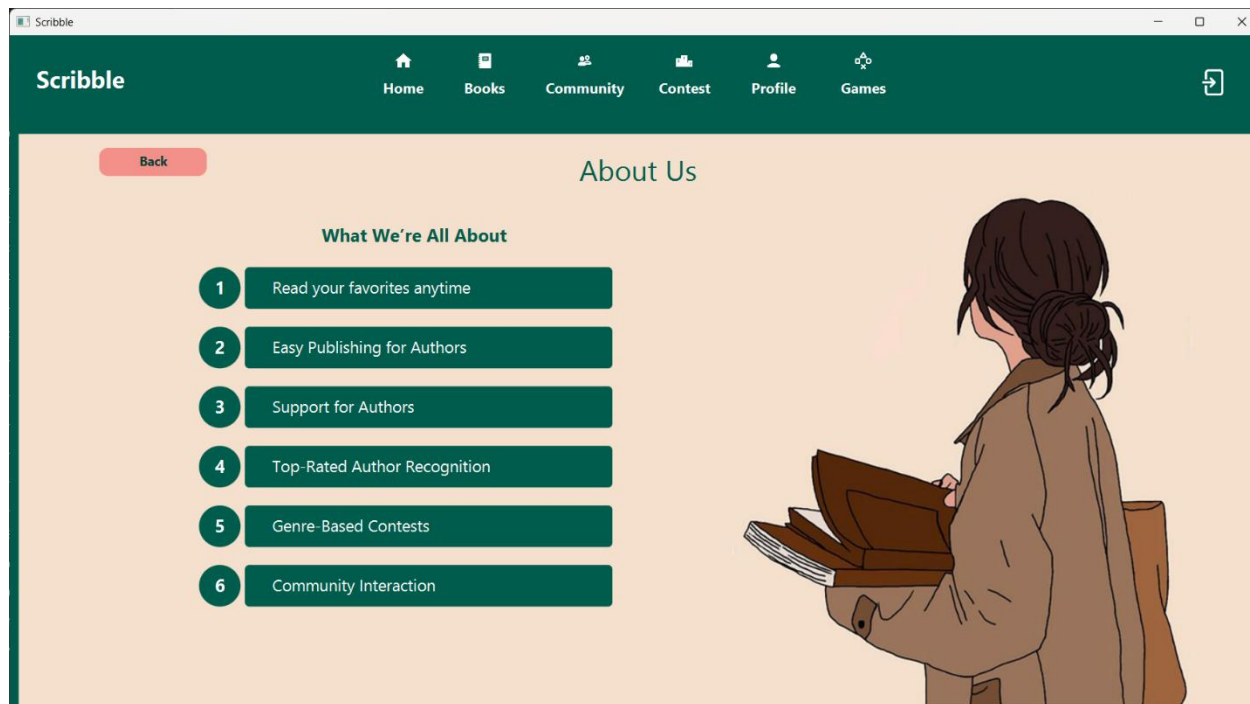
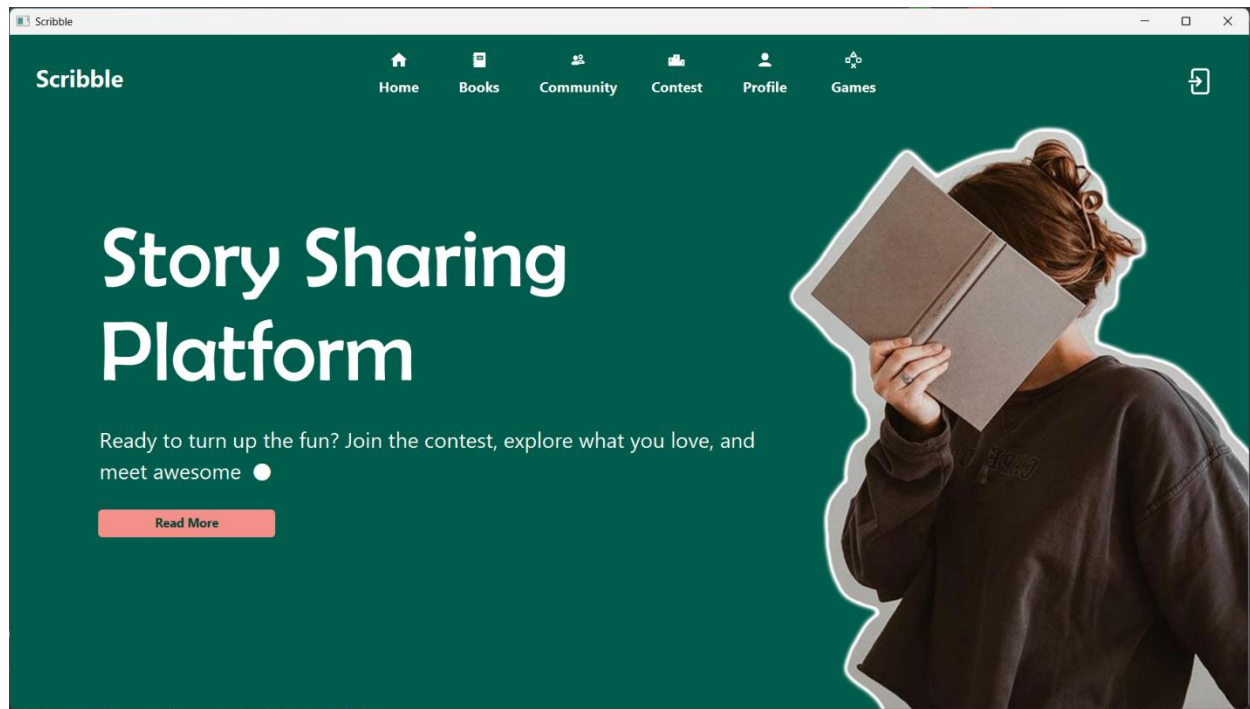
Email:

Password:

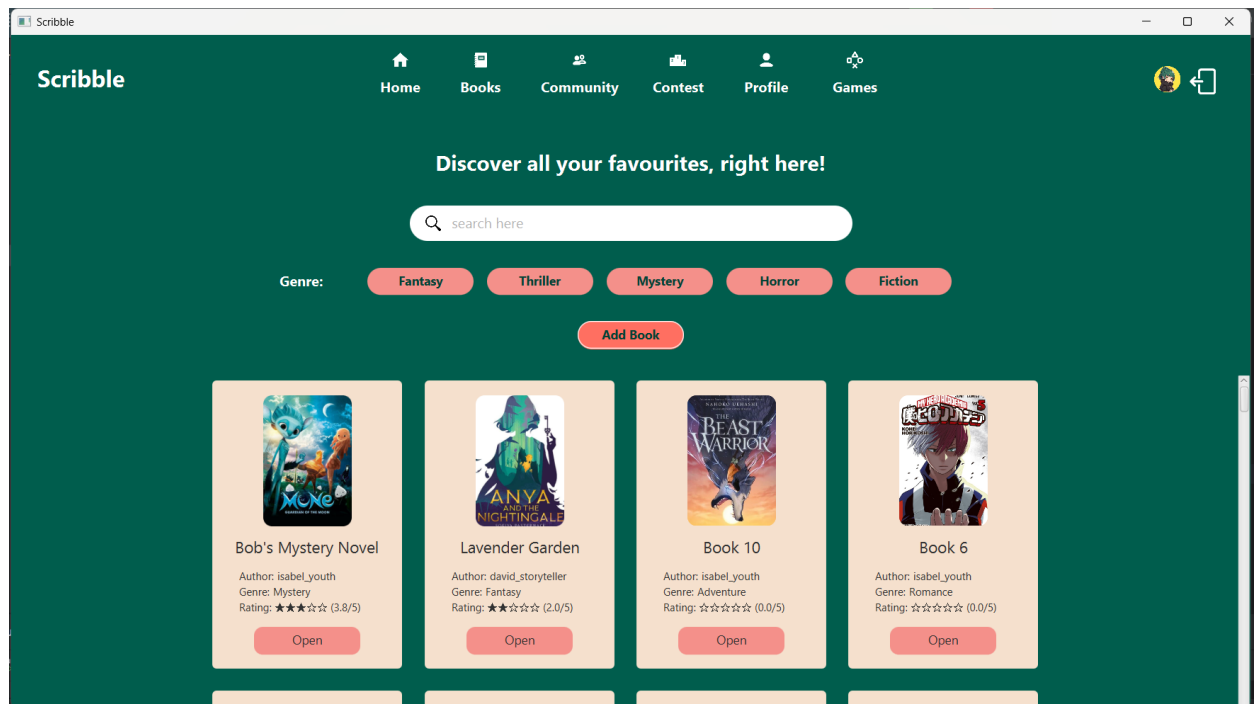
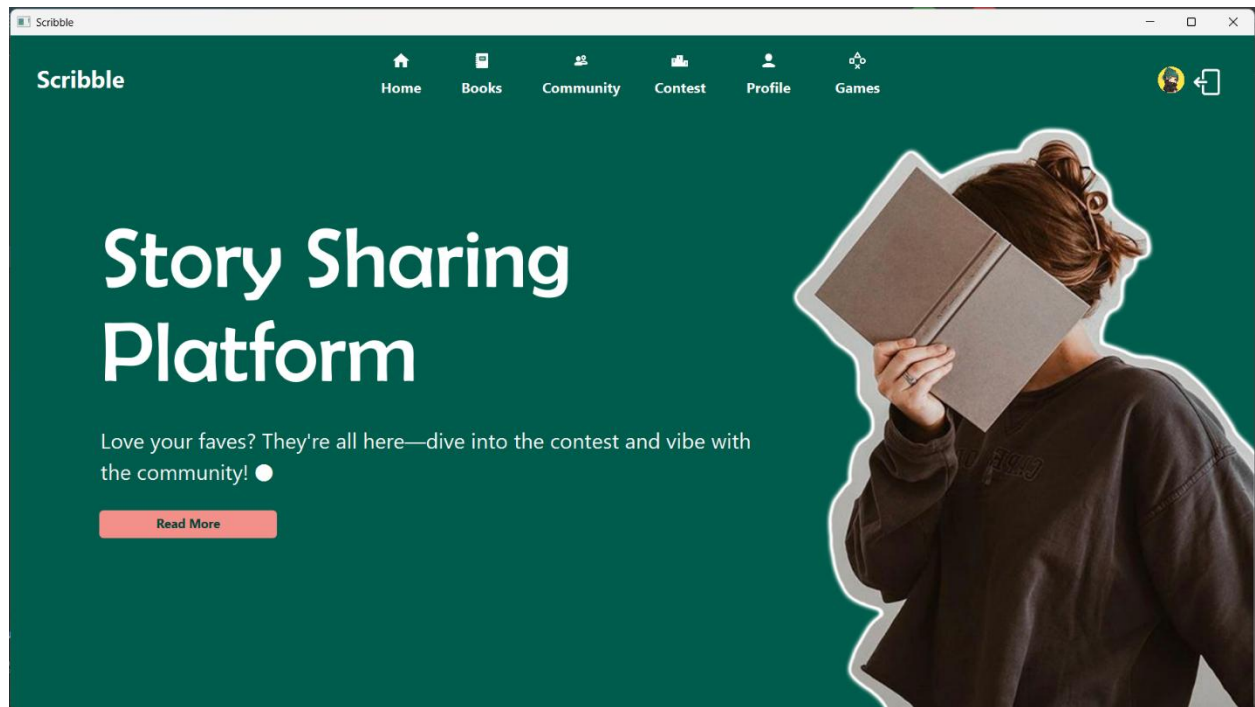
Sign In

Sign Up

This is the Home page and about page without any user signed in



After a user signed in Home page view and Books library view



Opening a book and opening the very 1<sup>st</sup> chapter

Scribble

Home


Books


Community

Contest


Profile

Games






Back



Bob's Mystery Novel

Rate

3.4 / 5



Views

195

Chapters

7

Reads

81

Status

Ongoing


Genre


Mystery

Read Now

Support

Request Collab



 **Author: isabel youth**  
Co-author: alice\_writer, charlie\_poet, grace\_thriller

Bob's Mystery Novel is a fast-paced mystery about Bob, who searches for his missing friend, Jake. A cryptic note, a hidden tunnel, and a mysterious map lead him on a thrilling...

Comments (5)

type your comment

add comment

user: user\_1  
i like your book

user: 5555  
is this

user: 33333  
love

Chapters

Chapter 1

Chapter 2

Chapter 3

Scribble

Home


Books


Community

Contest

Profile

Games





Back

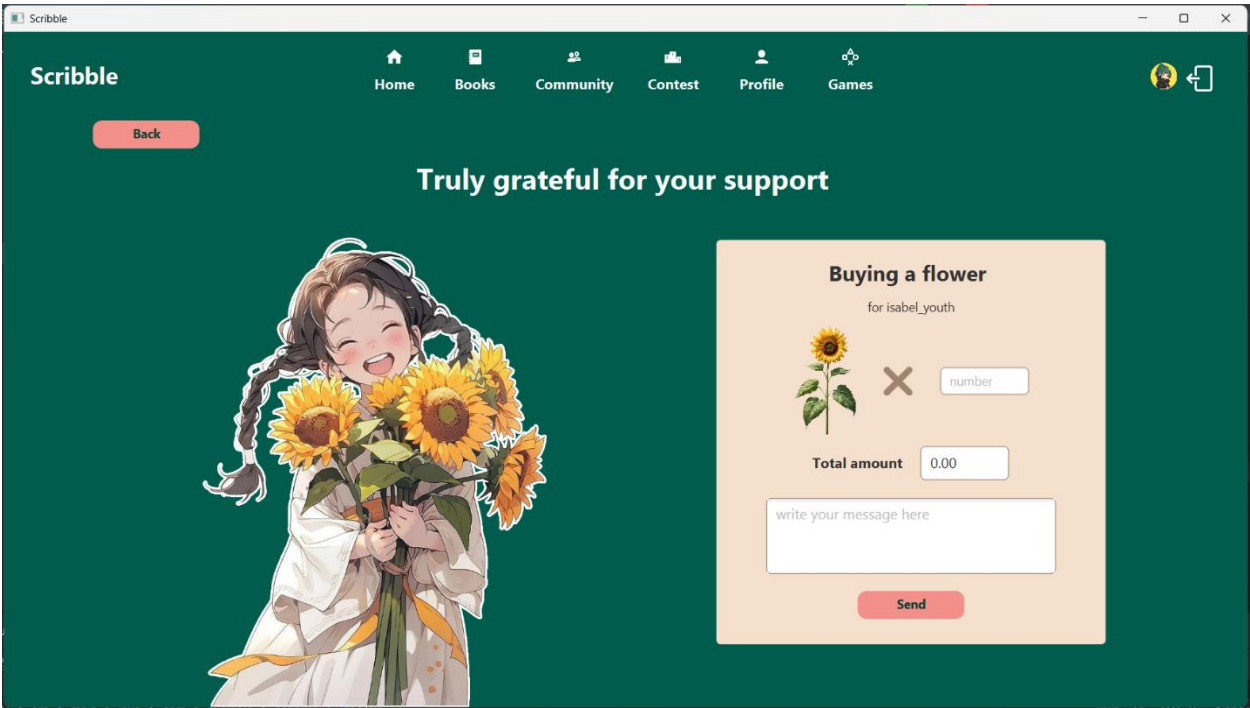
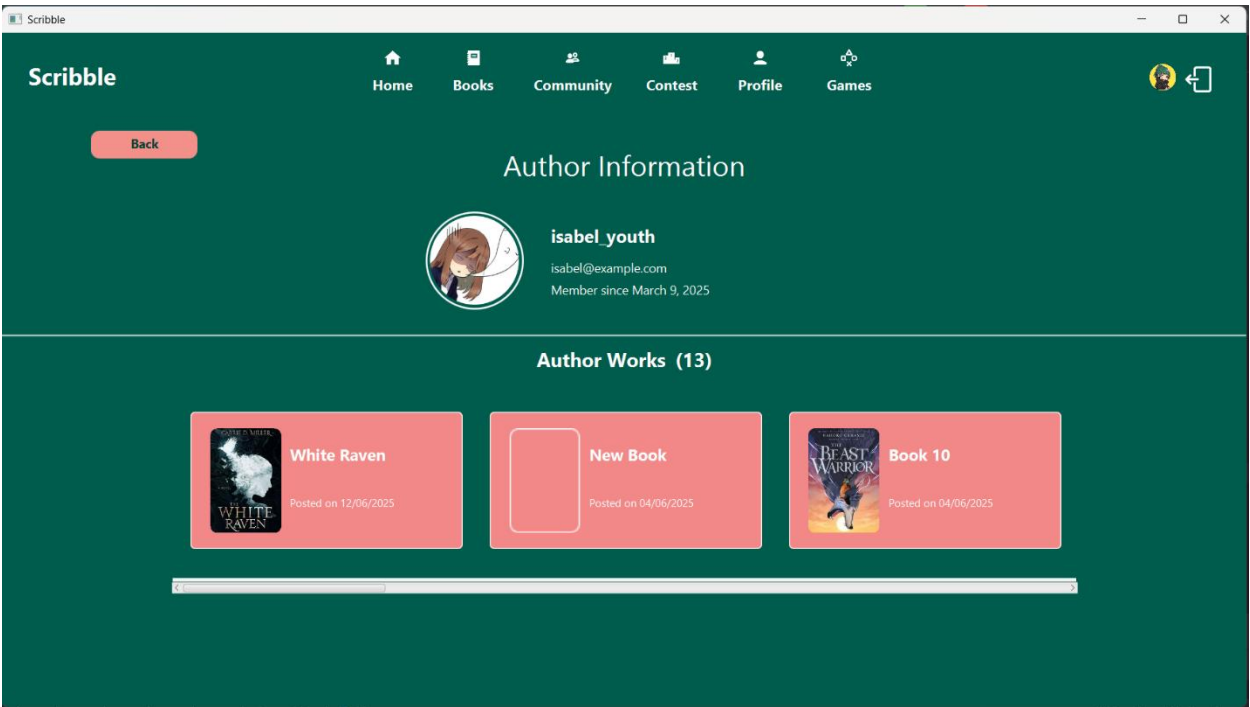
Next

Bob's Mystery Novel

Chapter 1

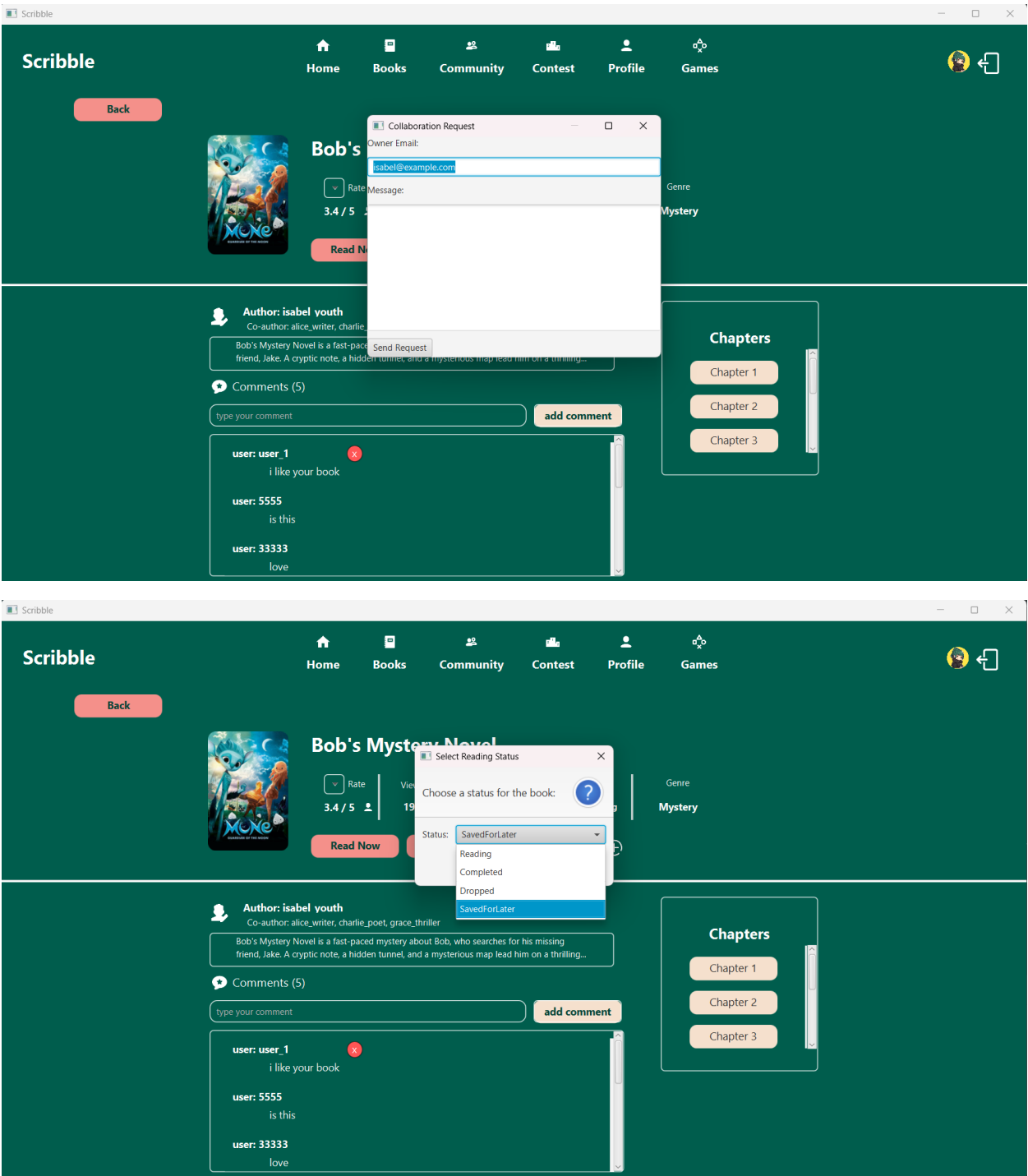
Bob found the door ajar. His best friend, Jake, had vanished...

Author profile and supporting page

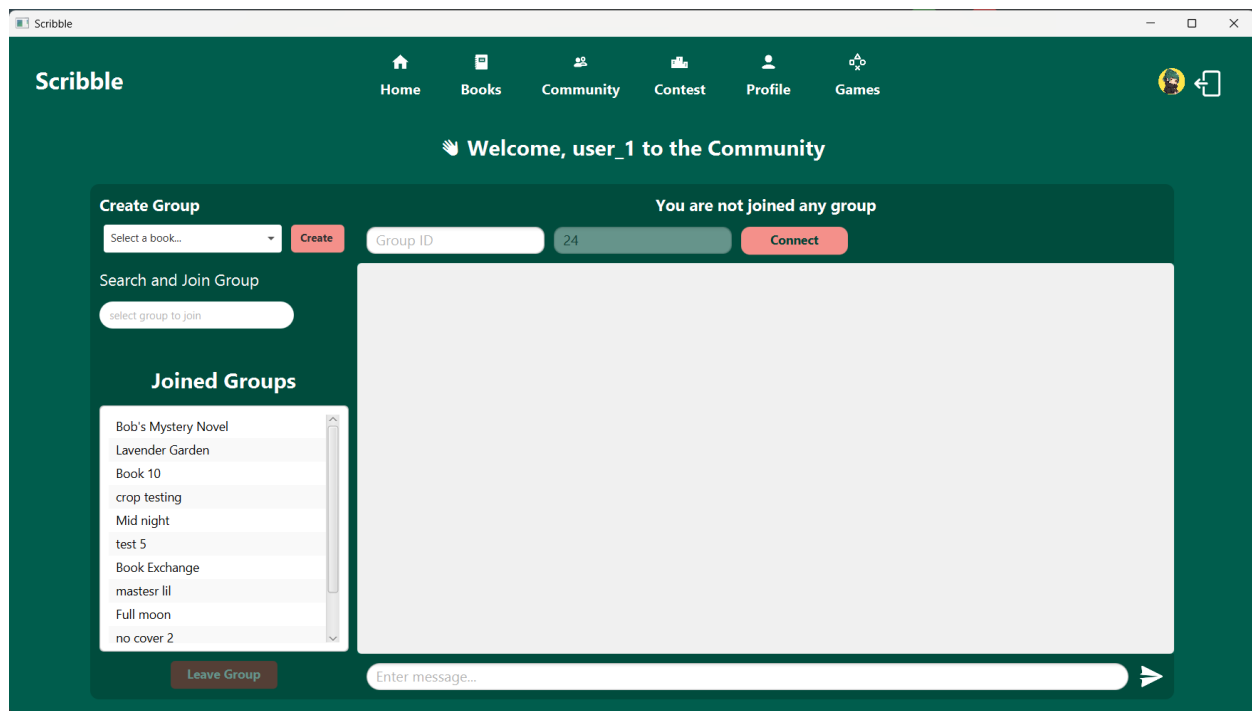




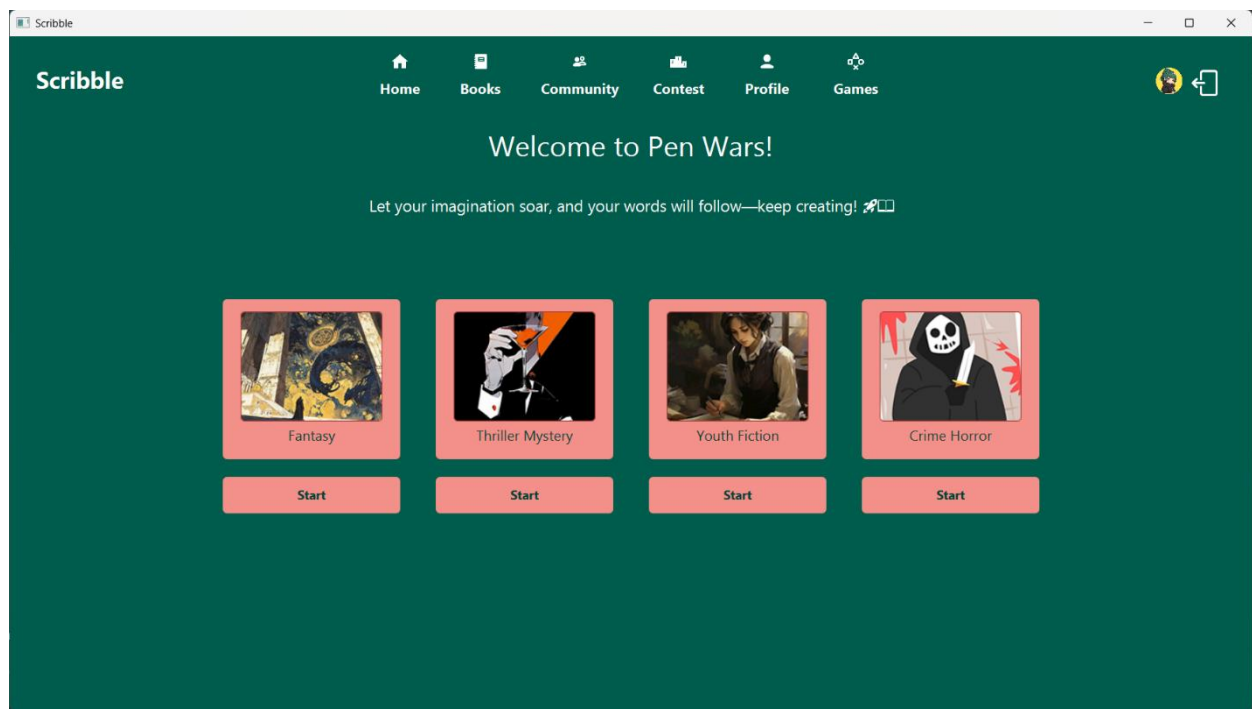
Collaboration and book status view



## Community section



## Contest section



Contest section → Fantasy sub-section view (current week and previous week)

Scribble

Home

Books

Community

Contest

Profile

Games

Back

Welcome to the Fantasy section

Previous Week

Current Week

Saturday, 28 June 2025 - Friday, 4 July 2025

Next reset in: 0d: 23h: 25m: 11s

Create your own

1

The Ember Stone

by 7777

Uploaded on 06/29/2025

Voted by 2 people

2

The Whispering Woods

by 2020

Uploaded on 06/29/2025

Voted by 2 people

open

3

Moonbound

by 8888

Uploaded on 06/29/2025

Voted by 0 people

open

Scribble

Home

Books

Community

Contest

Profile

Games

Back

Welcome to the Fantasy section

Previous Week

Current Week

Saturday, 21 June 2025 - Friday, 27 June 2025

Next reset in: 0d: 23h: 24m: 48s

Create your own

1

The Feather of Fire

by user\_2

Uploaded on 06/23/2025

Voted by 6 people

2

The Invisible Prince

by 5555

Uploaded on 06/23/2025

Voted by 4 people

open

3

The Last Leaf of Elwyn

by 33333

Uploaded on 06/23/2025

Voted by 3 people

open

Contest section → Fantasy sub-section → opening the entry called “The Feather of Fire”

Scribble

Home

Books


Community

Contest

Profile

Games

Back



### The Feather of Fire

(genre: Fantasy)

Chapter 1: Ember's Secret

Ember always burned hotter than others. Not just temper—her skin sparked flames when she felt fear. She kept gloves on, always. But after saving a falling hawk with flaming hands, she found a golden feather in her palm. It whispered, "Ignite." That night, her window glowed red. Something ancient was calling her name.

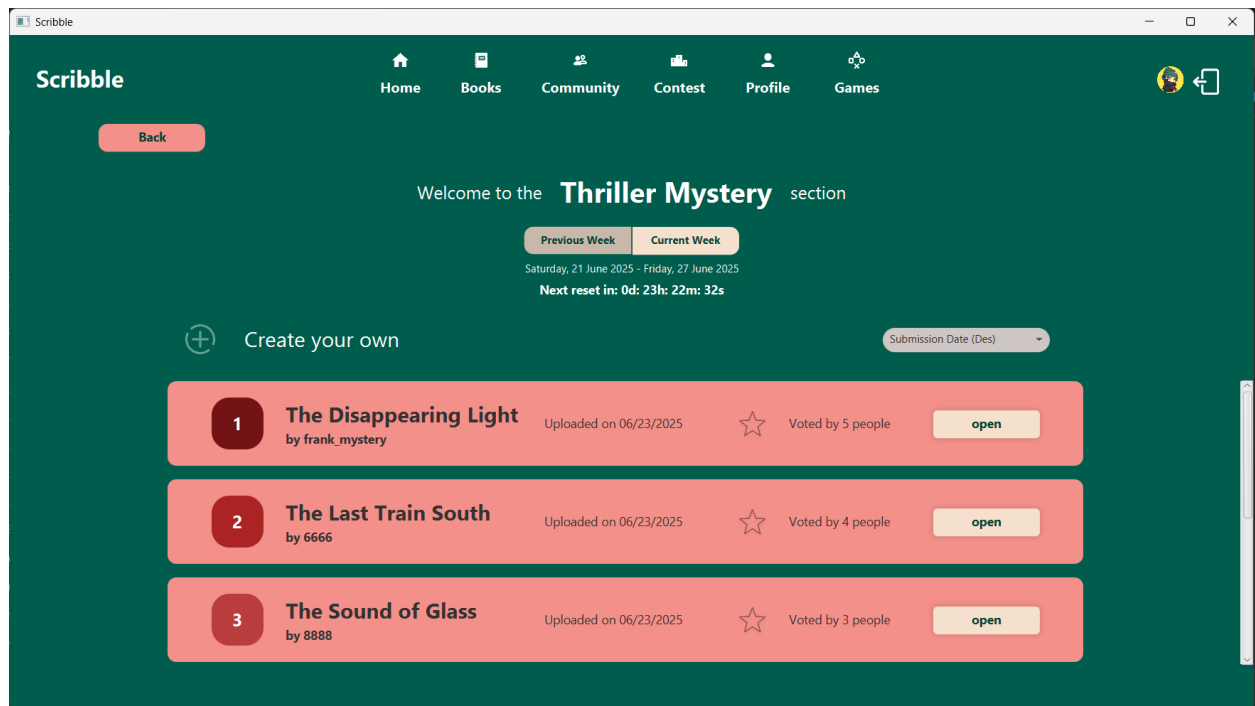
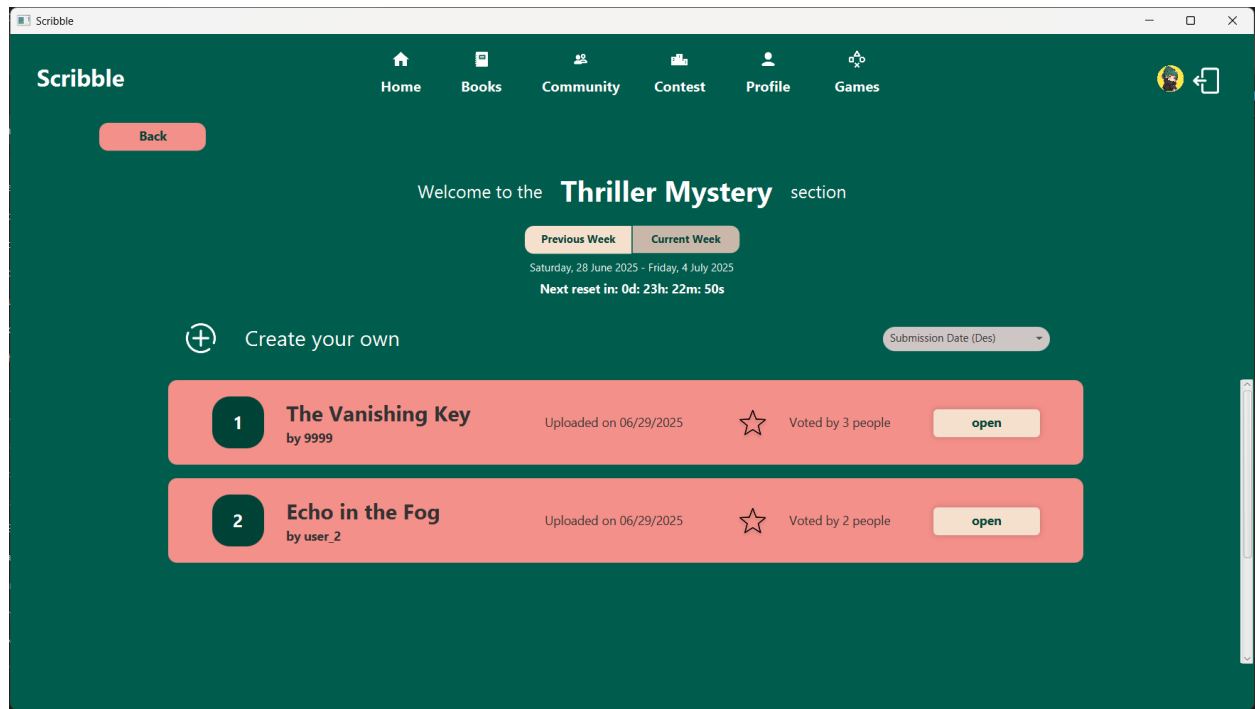
Chapter 2: The Phoenix Mark

The golden feather melted into her skin, branding her wrist with fire. Ember felt no pain—only clarity. Flames obeyed her now. She hid it from her father, but the forest near town burned a perfect circle. Villagers murmured of Phoenix magic. Ember wasn't the only one watching the flames. A hunter in a dark cloak followed.

Chapter 3: Trial by Flame

The hunter found her by the river, where steam rose from her footprints. "The Phoenix chose you," he said. "But fire tests loyalty." He lit a torch and handed her a map of the Dead Peaks. "Go there. Alone." Ember accepted. At midnight, fire leapt from her hands like wings. She didn't walk—she flew.

Contest section → Thriller Mystery sub-section view (current week and previous week)



Contest section → Youth Fiction sub-section view (current week and previous week)

The screenshot shows the Scribble website's Youth Fiction contest section. The header includes navigation links: Home, Books, Community, Contest, Profile, and Games. A 'Back' button is in the top left. The main heading is 'Welcome to the Youth Fiction section'. Below it, a date range 'Saturday, 28 June 2025 - Friday, 4 July 2025' and a countdown 'Next reset in: 0d: 23h: 21m: 47s' are displayed. A 'Create your own' button with a plus icon and a 'Submission Date (Des)' dropdown are also present. The contest entries are listed in a table with three rows:

Rank	Title	Author	Upload Date	Votes	Action
1	The Midnight Club	by user_1	Uploaded on 06/29/2025	Voted by 1 people	open
2	Code Green	by user_2	Uploaded on 06/29/2025	Voted by 4 people	open
3	Level Up, Life!	by 9999	Uploaded on 06/29/2025	Voted by 2 people	open

The screenshot shows the Scribble website's Youth Fiction contest section for a previous week. The header and navigation are identical to the first screenshot. The main heading is 'Welcome to the Youth Fiction section'. Below it, a date range 'Saturday, 21 June 2025 - Friday, 27 June 2025' and a countdown 'Next reset in: 0d: 23h: 21m: 24s' are displayed. A 'Create your own' button with a plus icon and a 'Submission Date (Des)' dropdown are also present. The contest entries are listed in a table with three rows:

Rank	Title	Author	Upload Date	Votes	Action
1	Hoodie Season	by 8888	Uploaded on 06/23/2025	Voted by 4 people	open
2	The Summer Bus	by 33333	Uploaded on 06/23/2025	Voted by 3 people	open
3	The Locker Letters	by 7777	Uploaded on 06/23/2025	Voted by 2 people	open

Contest section → Crime Horror sub-section view (current week and previous week)

Scribble

Home Books Community Contest Profile Games

Back

Welcome to the **Crime Horror** section

Previous Week Current Week

Saturday, 21 June 2025 - Friday, 27 June 2025

Next reset in: 0d: 23h: 20m: 32s

Create your own Submission Date (Des)

1	<b>The Red Door</b> by 1010101	Uploaded on 06/23/2025	☆	Voted by 2 people	open
2	<b>The Dollhouse Murders</b> by 5555	Uploaded on 06/23/2025	☆	Voted by 1 people	open
3	<b>The Man with Two Sh...</b> by user_2	Uploaded on 06/23/2025	★	Voted by 1 people	open

Scribble

Home Books Community Contest Profile Games

Back

Welcome to the **Crime Horror** section

Previous Week Current Week

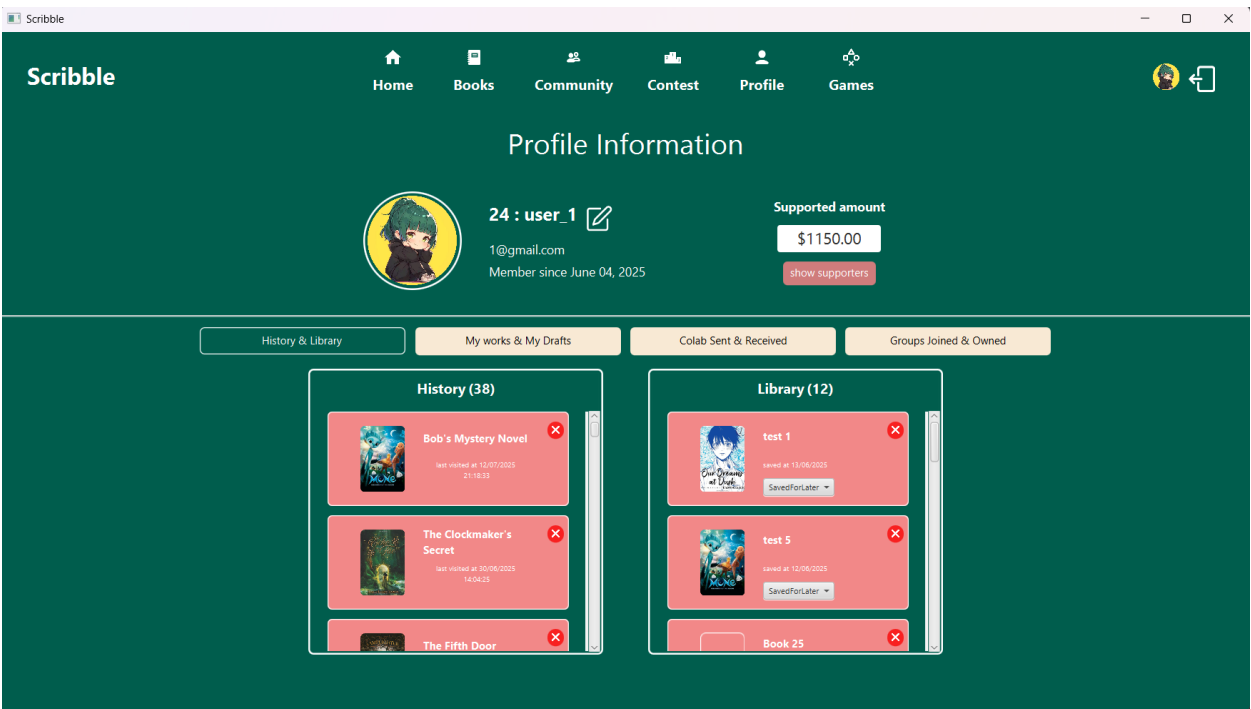
Saturday, 28 June 2025 - Friday, 4 July 2025

Next reset in: 0d: 23h: 20m: 58s

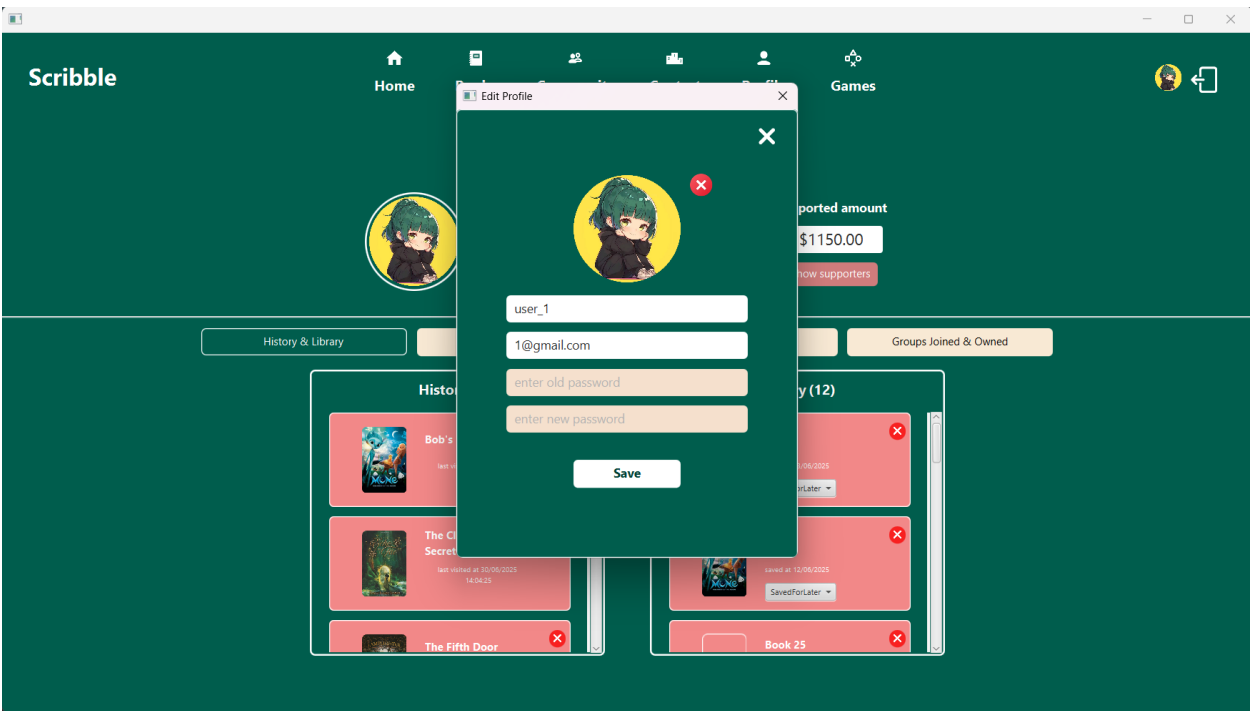
Create your own Submission Date (Des)

1	<b>Red Stains</b> by user_1	Uploaded on 06/29/2025	☆	Voted by 2 people	open
2	<b>The Collector's Code</b> by 2020	Uploaded on 06/29/2025	☆	Voted by 3 people	open
3	<b>Voices in Cell 9</b> by 7777	Uploaded on 06/29/2025	☆	Voted by 1 people	open

User's Profile view and user history and saved book status records



Profile edit





User’s all supporter’s info records

Scribble

Home

Books

Community

Contest

Profile

Games

Profile Information

24 : user\_1

1@gmail.com

Member since June 04, 2025

Supported amount

\$1150.00

show supporters

History & Library

Groups Joined & Owned

Supporters List

Serial	Username	Book Title	Message	Amount
1	user_2	The Fifth Door	Open	\$200.00
2	9999	The Fifth Door	Open	\$70.00
3	8888	Sun	Open	\$690.00
4	isabel_youth	The Fifth Door	Open	\$40.00
5	user_2	The Fifth Door	Open	\$40.00
6	33333	The Fifth Door	Open	\$80.00
7	user_2	The Last Signal	Open	\$20.00
8	user_2	test 1	Open	\$10.00

User's own created books and their drafts records

Scribble

Home

Books

Community

Contest

Profile

Games

Profile Information

24 : user\_1

1@gmail.com

Member since June 04, 2025

Supported amount

\$1150.00

show supporters

History & Library

My works & My Drafts

Collab Sent & Received

Groups Joined & Owned

My Works (24)

The Starlight Grove

posted on 30/06/2025

Whispers from the Well

posted on 30/06/2025

The Last Signal

My Drafts (12)

Whispers from the ...

Updated on 30/06/2025

Chapter 4

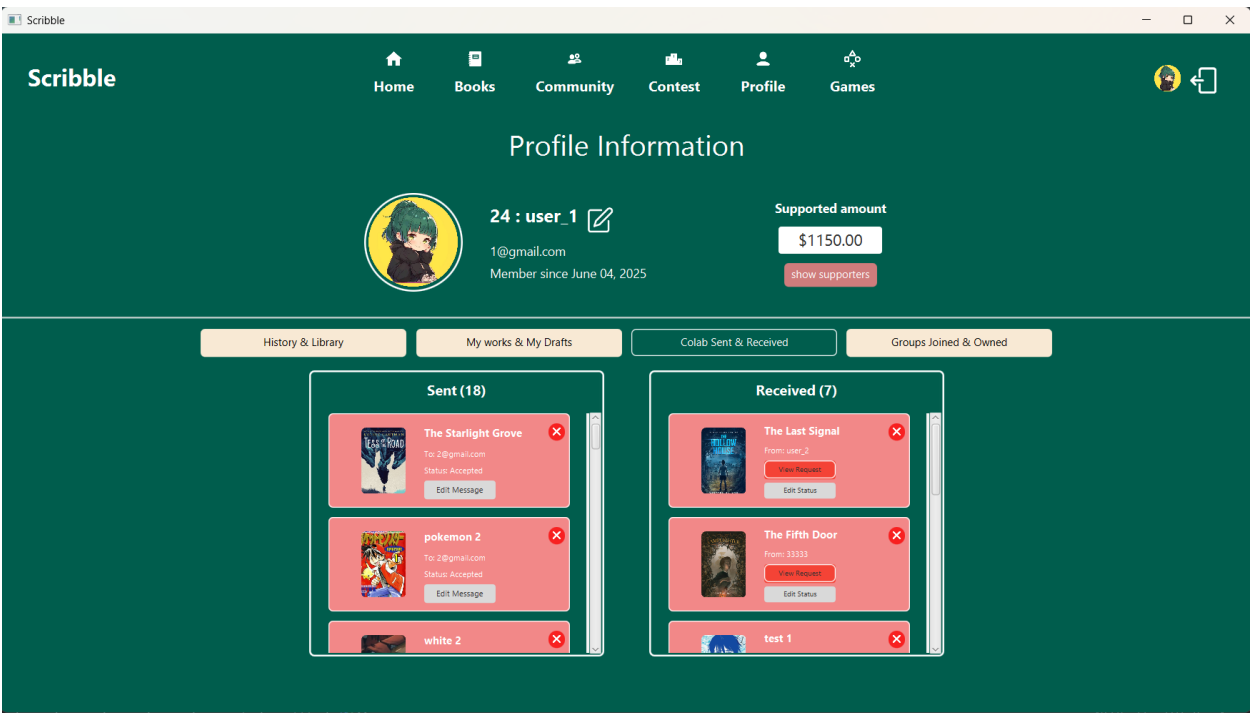
The Last Signal

Updated on 30/06/2025

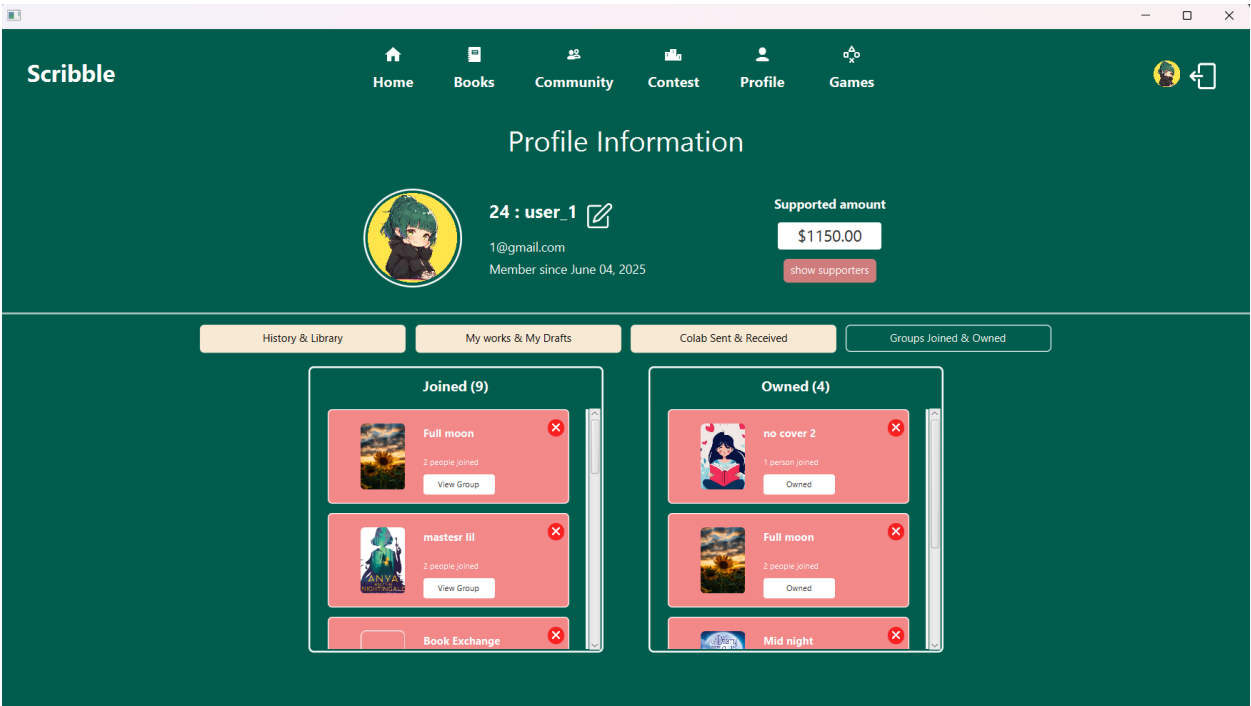
Chapter 5

The Fifth Door

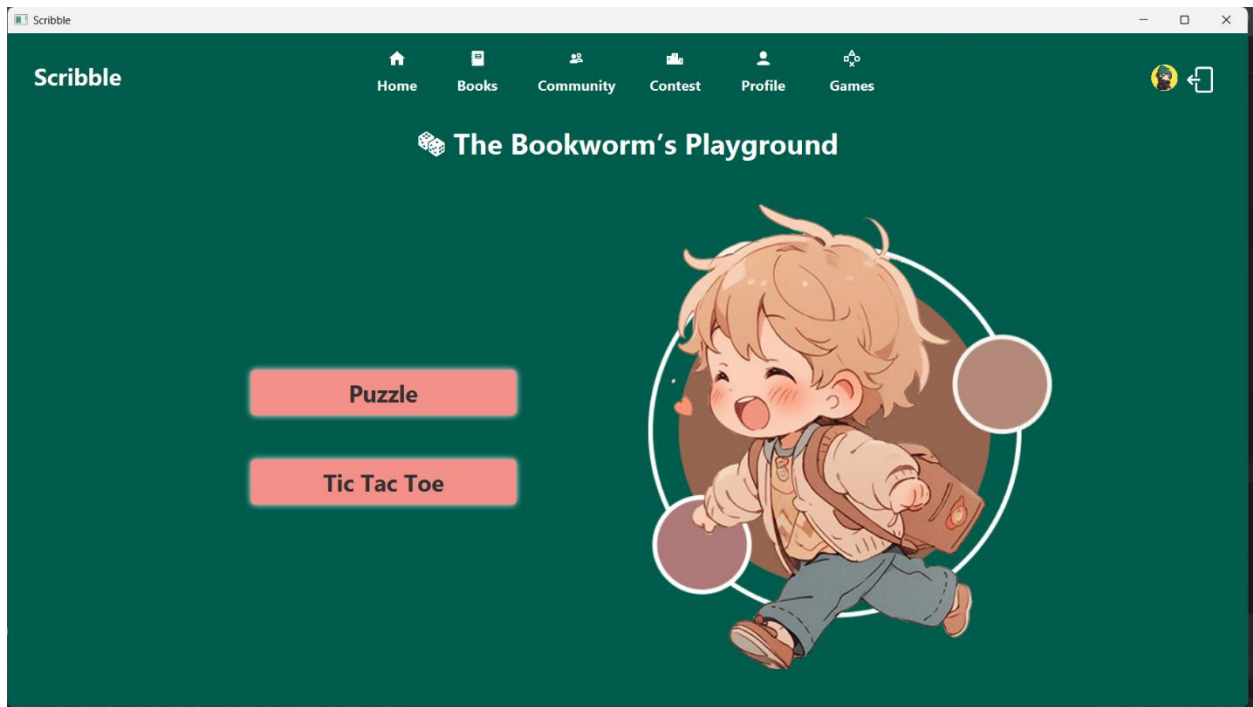
User's Collaboration request sent and received records



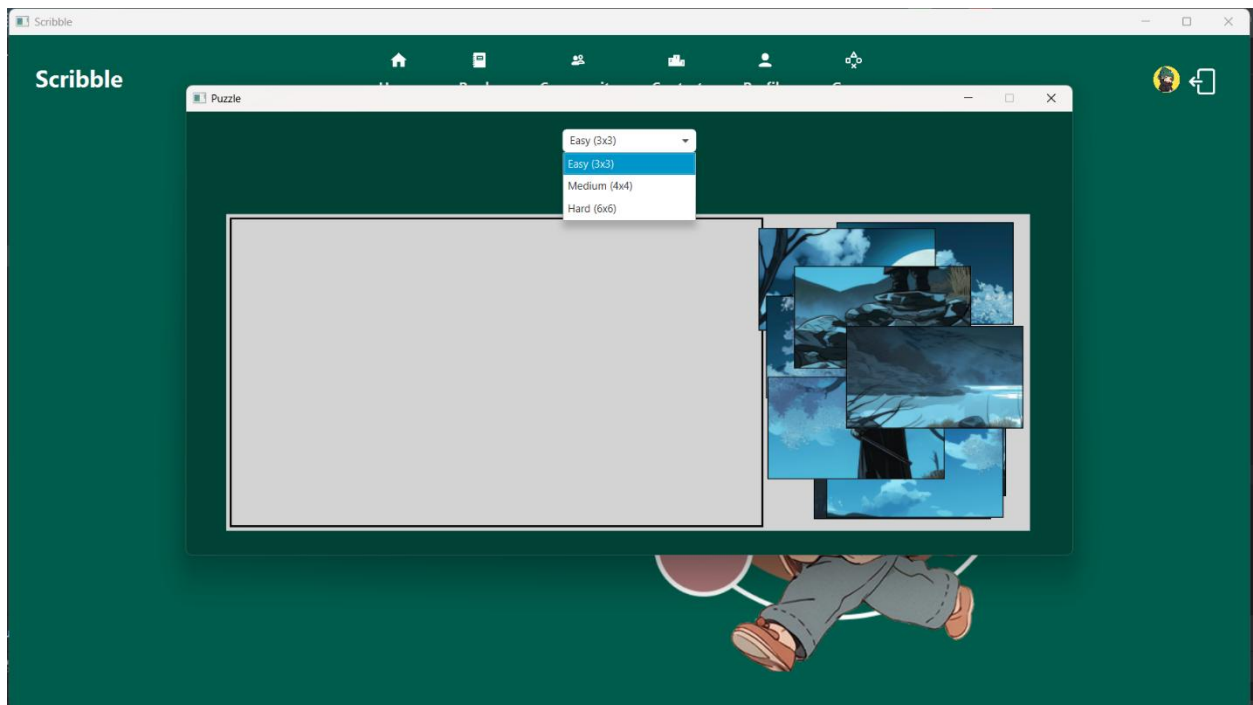
User's Joined group and owned group records

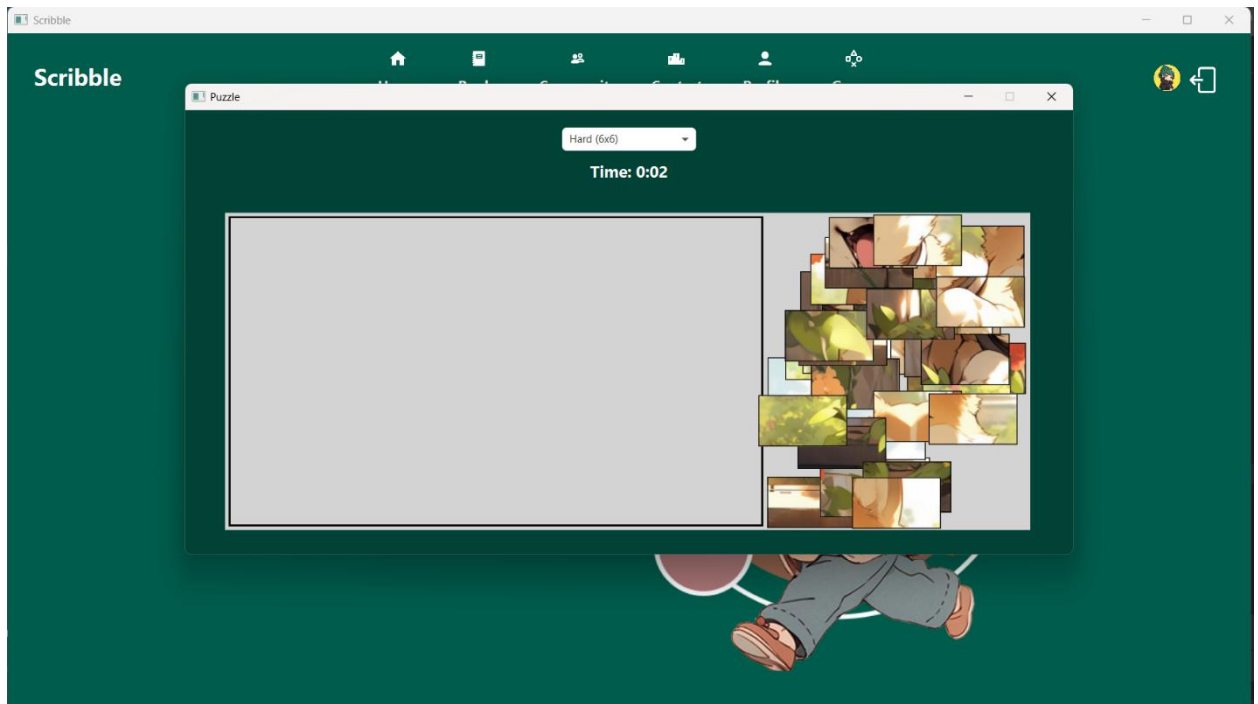
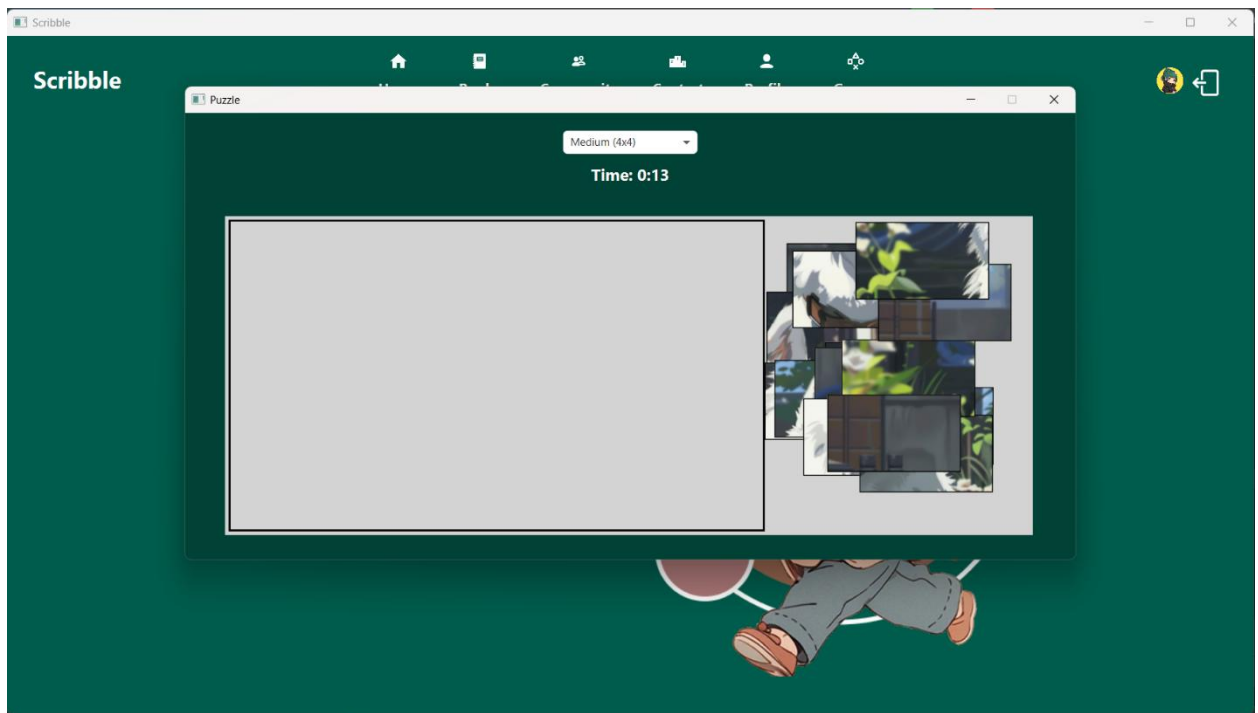


## Game section

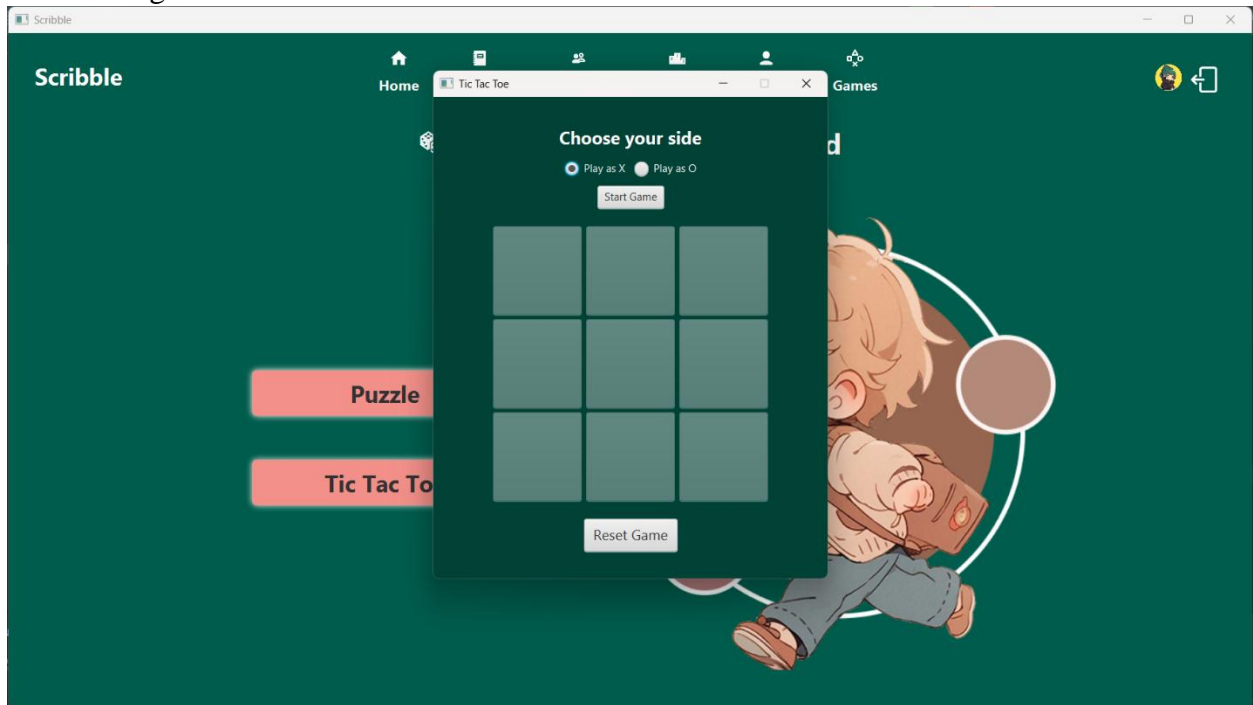


## Puzzle game view





## Tic tac toe game view



## Conclusion

**Scribble** is a community-focused platform that brings together storytelling, collaboration, and real-time interaction. With advanced features like multithreading, socket-based chat systems, and genre-based contests, Scribble is more than just a reading app — it's a creative ecosystem. The inclusion of collaborative tools, support mechanisms, and games ensures that users stay inspired and connected. This project has helped us explore not only the technical dimensions of software development but also the creative and social aspects of building a vibrant digital community.