

VolunMe – Turning Free Time into Meaningful Action

Final Report

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Course: Human–Computer Interaction

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1. Project Idea

The main idea behind VolunMe is to create a web application that connects people who want to volunteer with organizations and community events that need help. Many individuals spend their free time unproductively, often scrolling social media or playing games, while at the same time communities lack volunteers for meaningful activities. VolunMe aims to bridge this gap by offering a centralized, simple, and motivating platform where volunteering opportunities are easily accessible. The goal of the application is to transform free time into positive social impact and encourage users to contribute to their communities.

2. Problem Definition

Currently, volunteering opportunities are scattered across multiple platforms such as social media, websites, and physical notice boards. This lack of centralization makes it difficult for volunteers to discover suitable activities and for organizations to reach potential helpers. As a result, many volunteering opportunities remain unused, and people willing to help often do not know where to start.

3. Proposed Solution

VolunMe provides a user-friendly web application that allows users to browse volunteering events, filter activities by location and type, join or withdraw from events, create new activities, and receive notifications. Administrators approve and moderate activities to ensure content quality and platform safety.

4. Target Users

Primary users include students, working professionals, retirees, and community-oriented individuals who want to contribute to society. Secondary users are NGOs, local organizations, and event organizers who need volunteers. The platform is also designed for users seeking social interaction, teamwork, and a sense of belonging through volunteering.

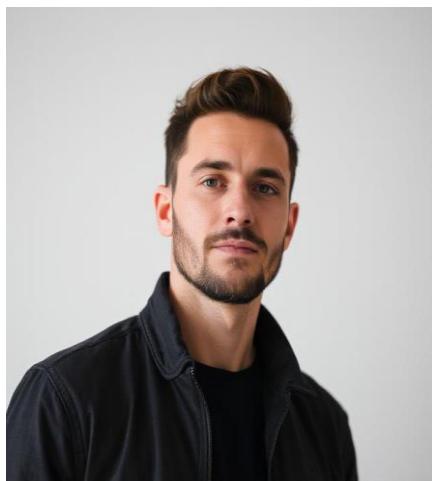
5. User Personas

User personas were created to better understand user needs.



Ana – Student Volunteer

- **Age:** 20
- **Occupation:** Psychology Student
- **Location:** Split
- **Goals:** Gain experience, help community, meet people
- **Motivation:** Loves helping others
- **Frustration:** Disorganized volunteering information
- **Quote:** "I want to help, but I don't know where to start."



Marko – Event Organizer

- **Age:** 35
- **Occupation:** NGO Coordinator
- **Location:** Zagreb
- **Goals:** Find volunteers, manage events efficiently
- **Motivation:** Wants centralized platform
- **Frustration:** Posting events on multiple platforms
- **Quote:** "I wish there was one place where all volunteers could see our events."*



Ivana – Working Professional

- **Age:** 42
- **Occupation:** Teacher
- **Location:** Zadar
- **Goals:** Short-term volunteering opportunities
- **Motivation:** Personal fulfillment
- **Frustration:** Lack of flexible options
- **Quote:** “I’d love to help, but I need something that fits my time.”



Marija – Retired Volunteer

- **Age:** 65
- **Occupation:** Retired nurse
- **Location:** Šibenik
- **Goals:** Stay active and socially engaged.
- **Motivation:** Feels useful and fulfilled when contributing to society
- **Frustration:** Finds technology sometimes confusing and complex
- **Quote:** “I still have time and energy — I just need a simple way to help.”

6. Information Architecture

The information architecture of the VolunMe application is designed to ensure clear navigation, simplicity, and quick access to core functionalities for both regular users and administrators. The application entry point is the Home page, which serves as an introduction to the platform and explains its purpose. From the Home page, users can easily choose to log in or register, ensuring a clear and intuitive onboarding process.

6.1 User Role

For regular users, the Home page presents a brief overview of the application, its mission, and an “About” section that explains how volunteering through VolunMe

works. The **Activities** section represents the core of the application. It displays a list of all available volunteering events. Users can filter activities by **location** and **activity type**, allowing them to quickly find opportunities that match their interests and availability. Each activity includes visible participant counts and options to **join** or **withdraw** from an event. Users can also create new activities, which must be approved by an administrator before becoming publicly visible. The **Notifications** section enables users to view event-related updates and messages.

6.2 Admin Role

Administrators have access to a dedicated **Admin Panel**, where they can review and approve newly created activities, delete inappropriate or outdated events, and manage notifications. This role ensures content quality, platform safety, and proper moderation of user-generated content.

6.3 Sitemap

The sitemap represents the hierarchical structure of the VolunMe application and illustrates how users navigate between different sections. The main navigation includes **Login/Register**, **Home**, **Activities**, and **Notifications**. From the Activities page, users can access **Activity Details** pages. This structure ensures logical navigation, reduces cognitive load, and allows users to access key features quickly and efficiently.

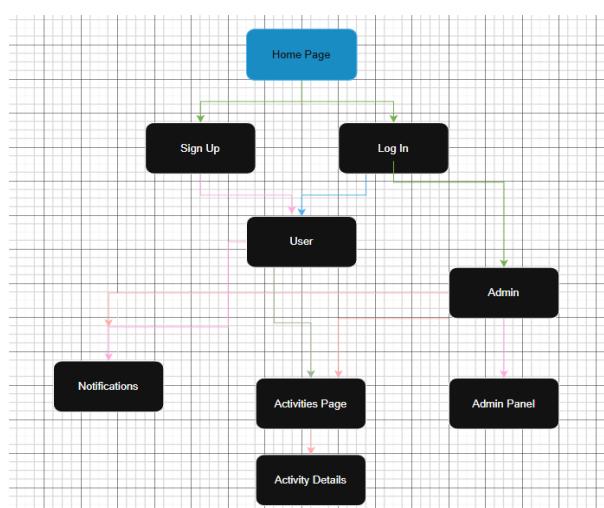


Image 1 Sitemap

7. Design and User Interface

The user interface follows modern, minimalistic design principles with a focus on clarity, consistency, and ease of use. The layout is designed to be intuitive for users of all ages, including older users with limited technical experience.

7.1 Home Page

The Home Page introduces the application, shows its purpose, and guides users to explore volunteering opportunities.

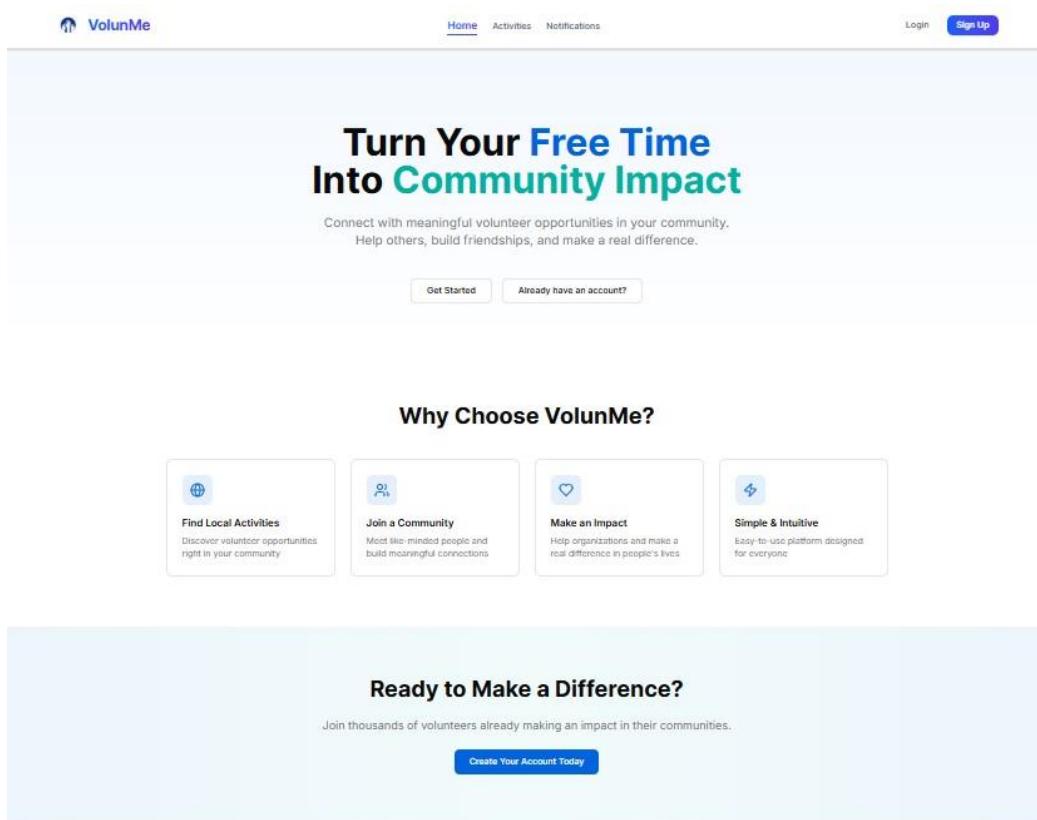


Image 2 Home Page

7.2 Activities Page

This page lists all volunteering events, with filters by location and type. Users can join or withdraw from events and view participant counts.

Volunteer Activities

Find meaningful opportunities to make a difference in your community

Filters

Date: All Dates, Today, Tomorrow, This Week, Next Week, This Month, Next Month, Upcoming, Past Events

Category: All Categories, Environment, Health, Other

All Activities

Page 2 of 2 • 3 results

Search by title, description, location, or organizer...

Planinarenje (environment) Sat, Jan 24, 2026 08:00
Planinarski izlet od zvjezdanog sela do vrha planine. Ponijeti vodu i hrana.
Available spots: 39 / 40
Location: Zvjezdano selo, Mosor
Organizer: User

Besplatan pregled (health) Sun, Feb 1, 2026 10:00
Ponijeti zdravstvenu iskaznicu i dobru volju :)
Available spots: 4 / 6
Location: FESB Split
Organizer: User

Čišćenje mora (other) Sun, Feb 8, 2026 09:00
Zainteresirani volonteri moraju ponijeti vlastitu ronilačku odjeću, hrana, piće i boce s...
Available spots: 60 / 60
Location: Bačvice, Split
Organizer: User

Page 2 of 2 • 2 total pages

Previous 1 2 Next >

Image 3 Activities Page

7.3 Activity Details

Shows more information about a specific event, including description, date, location, and participant list.

Planinarenje (environment)

Planinarski izlet od zvjezdanog sela do vrha planine. Ponijeti vodu i hrana.

Activity Details

Date: Saturday, January 24, 2026 | Time: 08:00 | Post Event

Location: Zvjezdano selo, Mosor | Open in Maps

Capacity: 39 spots available out of 40 | Many spots available

Spots Available: 39 | 1 already applied

Event Completed

This activity has already taken place. Thank you to all volunteers who participated!

Event is Over

Activity Organizer

User user@example.com

About This Activity

Planinarski izlet od zvjezdanog sela do vrha planine. Ponijeti vodu i hrana.

This volunteer opportunity is open to anyone interested in making a positive impact.

Image 4 Activities Details

7.4 Admin Panel

The Admin Panel allows administrators to approve new activities, manage users, and delete events or notifications.

The screenshot shows the 'Admin Dashboard' interface. At the top, there's a navigation bar with links for Home, Activities, Notifications, and Admin (which is underlined). On the right, there are user profile icons for 'admin' and a 'Logout' button. Below the navigation, the title 'Admin Dashboard' is centered. Underneath it, there's a section titled 'Activities' with a sub-section 'Pending Activities'. This section lists two pending activities:

- Sports** - **Pending Review**
Pending
fasdsfasdfcsdcasdcvasdv
Submitted Jan 12, 2026 ✓ Approve
Date: Wed, Jan 14, 2026 Time: 00:12 Location: vsfdvadasdv Capacity: 30 volunteers
Organizer: admin admin@volunme.com
- Environment** - **Pending Review**
Akcija posumljavanja
Ponijeli dobru volju, ostalo cemo mi osigurati.
Submitted Jan 14, 2026 ✓ Approve
Date: Sat, Mar 14, 2026 Time: 08:30 Location: Park Šuma Marjan Capacity: 150 volunteers
Organizer: Kristian Baja kiba@gmail.com

Each activity card includes a 'Refresh' button and a 'Delete' button (labeled 'ID: 400182da...'). There's also a 'Admin View' button at the top right of the pending activities section.

Image 5 Admin Panel

7.5 Login / Registration

The entry point for users to log in or register. Forms are simple and clear, ensuring easy onboarding for all age groups.

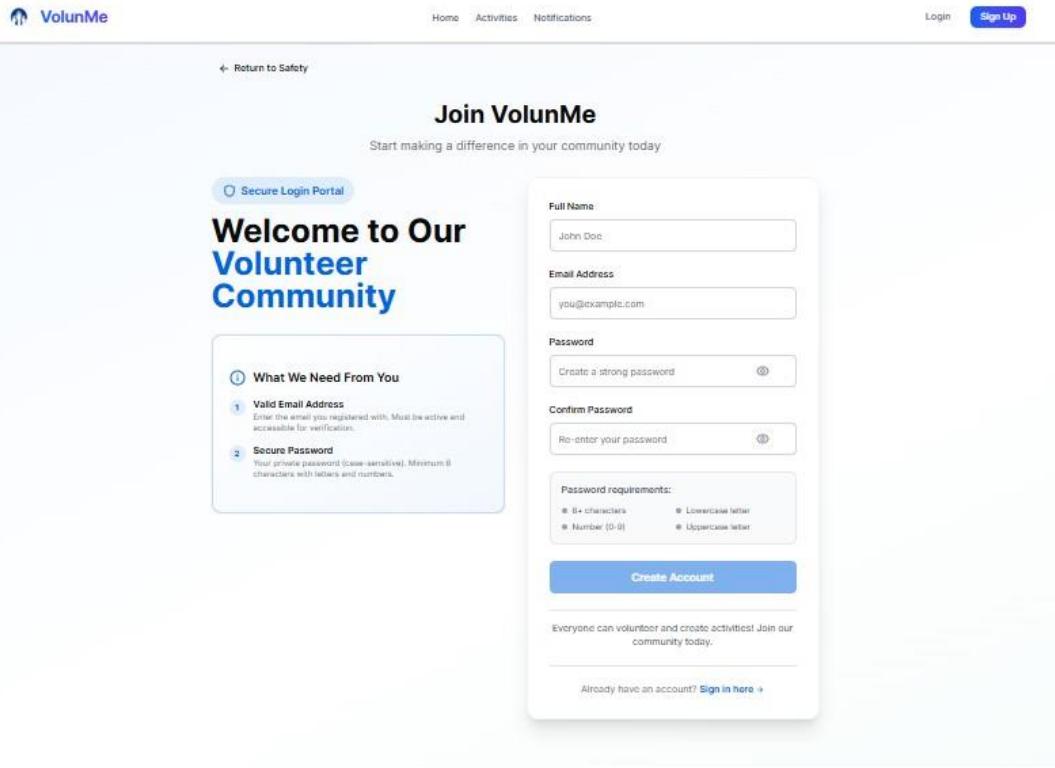


Image 6 Login Page

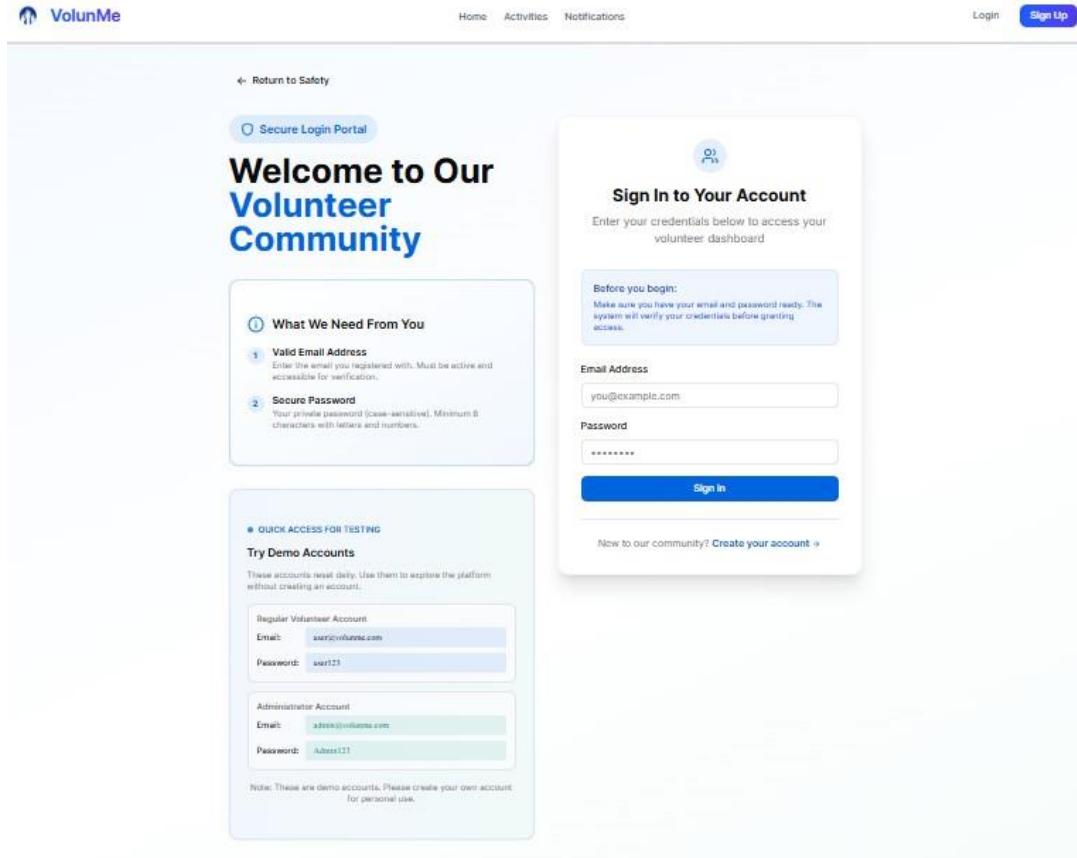
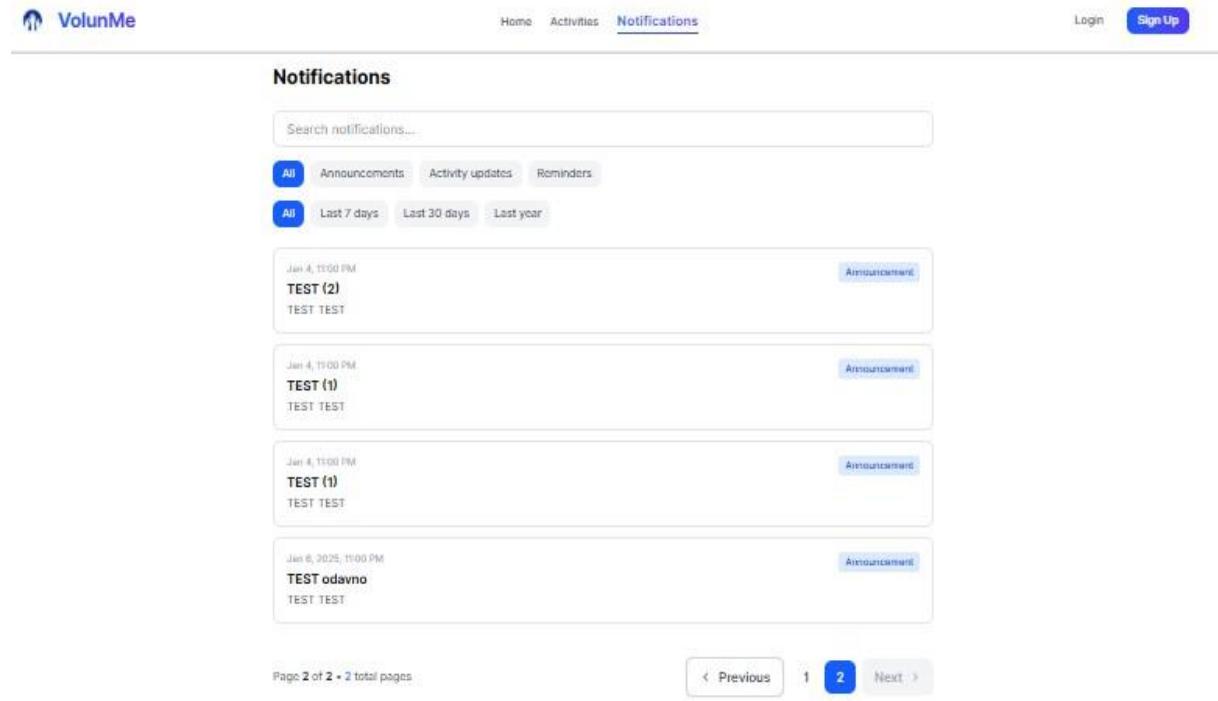


Image 7 SignUp Page

7.6 Notifications

The entry point for users to view and send notifications related to events. The Notifications section enables users to view event-related updates and messages.



The screenshot shows the 'Notifications' section of the VolunMe application. At the top, there is a navigation bar with links for 'Home', 'Activities', 'Notifications' (which is highlighted in blue), 'Login', and 'Sign Up'. Below the navigation bar is a search bar labeled 'Search notifications...'. Underneath the search bar are two sets of filters: one for type ('All', 'Announcements', 'Activity updates', 'Reminders') and another for time ('All', 'Last 7 days', 'Last 30 days', 'Last year'). The main content area displays four notification items, each in its own box. The first item is dated 'Jan 8, 11:00 PM' and titled 'TEST (2)'. It contains the text 'TEST TEST' and is categorized as an 'Announcement'. The second item is dated 'Jan 8, 11:00 PM' and titled 'TEST (1)'. It also contains the text 'TEST TEST' and is categorized as an 'Announcement'. The third item is dated 'Jan 8, 11:00 PM' and titled 'TEST (1)'. It contains the text 'TEST TEST' and is categorized as an 'Announcement'. The fourth item is dated 'Jan 8, 2025, 11:00 PM' and titled 'TEST odavno'. It contains the text 'TEST TEST' and is categorized as an 'Announcement'. At the bottom of the page, there is a pagination control showing 'Page 2 of 2 • 2 total pages' with buttons for 'Previous', '1', '2', 'Next', and '»'.

Image 8 Notification Page

8. HCI Principles

Usability: Simple flows for joining and creating activities.

Consistency: Same layout patterns across pages.

Learnability: New users quickly understand navigation.

Feedback: Notifications confirm user actions.

Error Prevention: Admin approval prevents spam or invalid events.

9. Technologies Used

Technologies Used in This Project are:

Next.js – frontend framework for building the application

TypeScript – type-safe JavaScript for better code reliability

Tailwind CSS – utility-first CSS framework for responsive design

Vercel – hosting and deployment platform

Supabase – backend services, database, and authentication

Contentful CMS – content management system for static and dynamic content

10. Database and Data Management

VolunMe uses Supabase as a backend solution for database management and user authentication. This relational structure ensures data consistency, scalability, and secure access control, while allowing future feature expansion such as ratings or gamification.

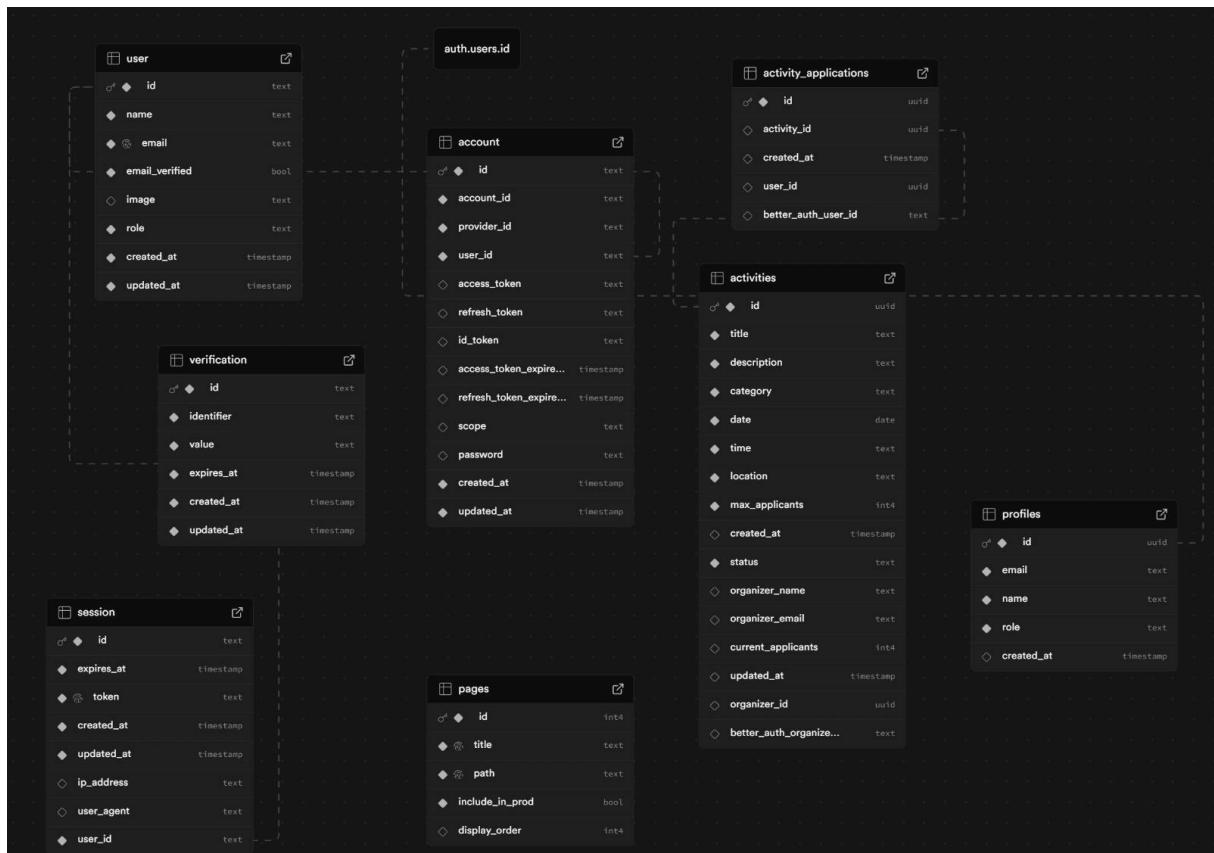


Image 9 ERD

	NAME	DESCRIPTION	ROWS (ESTIMATED)	SIZE (ESTIMATED)	REALTIME	ENABLED	13 columns	⋮
□	account	No description	9	48 kB	✓	✓	13 columns	⋮
□	activities	No description	18	96 kB	✓	✓	16 columns	⋮
□	activity_applications	No description	9	64 kB	✓	✓	5 columns	⋮
□	pages	No description	4	64 kB	✓	✓	5 columns	⋮
□	profiles	No description	18	32 kB	✓	✓	5 columns	⋮
□	session	No description	12	64 kB	✓	✓	8 columns	⋮
□	user	No description	9	48 kB	✓	✓	8 columns	⋮
□	verification	No description	0	24 kB	✓	✓	6 columns	⋮

Image 10 DataBase

11. Content Management System

Contentful CMS is used to manage notifications within the application, functioning as a digital notice board where important announcements and updates are published. This approach separates notification content from the application logic and enables administrators to easily create and update announcements without redeploying the application. The appearance and usage of the notification system are demonstrated in the figures below.

Content type		Notification	Type to search for entries	Filter
+ Created by me	+ Tags is one of	+ Taxonomy	+ Status is	+ Locale
Sort by				
<input type="checkbox"/>	Name	Content Type	Updated	Last updated by
<input type="checkbox"/>	TEST odavno	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (13)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (12)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (11)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (10)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (9)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (8)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (7)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (6)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (5)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (4)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (3)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (2)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (1)	Notification	09 Jan 2026	VolunMe webapp
<input type="checkbox"/>	TEST (1)	Notification	09 Jan 2026	VolunMe webapp

16 entries < Previous Next >

Image 11 CMS

Fields (8)			
Name and description			
Groups	Name	Field Type	Localization
JSON preview	 title <small>Entry title</small>	T Short text	—  
Sidebar	 message	T Long text	—  
Entry editors	 type	T Short text	—  
Taxonomy validations	 user	 Reference	—  
	 activity	 Reference	—  
	 targetUsers	 References, many	—  
	 timeStamp	 Date & time	—  
	 createdAt	 Date & time	—  
+ Add field			

Image 12 CMS Notification

12. Performance and Optimization

Performance testing was conducted using Google PageSpeed Insights, and the results were excellent for both mobile and desktop versions. The application demonstrates fast loading times, smooth interactions, and overall high performance, as illustrated in the figures below.

Report from 30 Jan 2026, 23:36:47

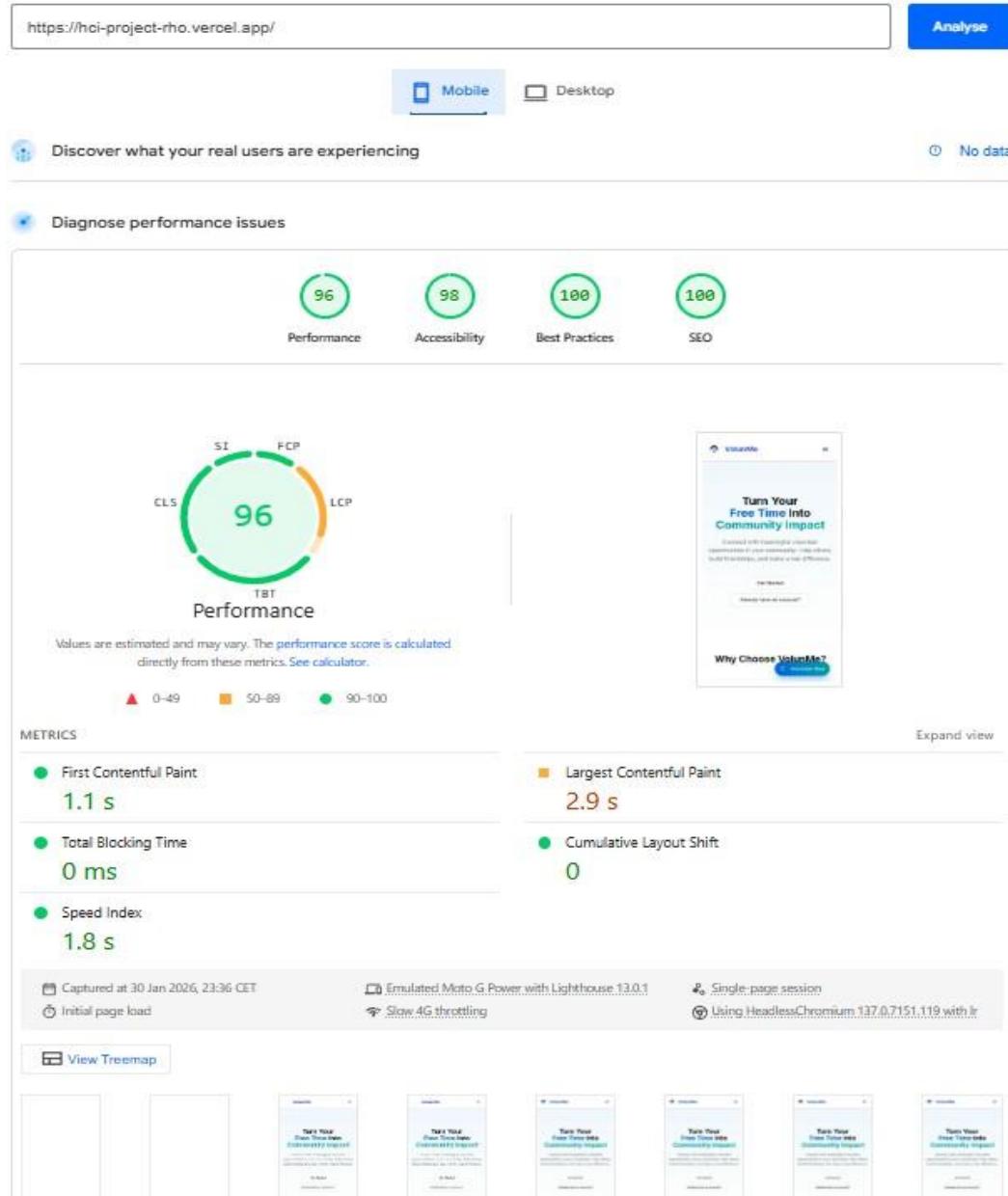


Image 13 Desktop Performance Test

Report from 30 Jan 2026, 23:36:47

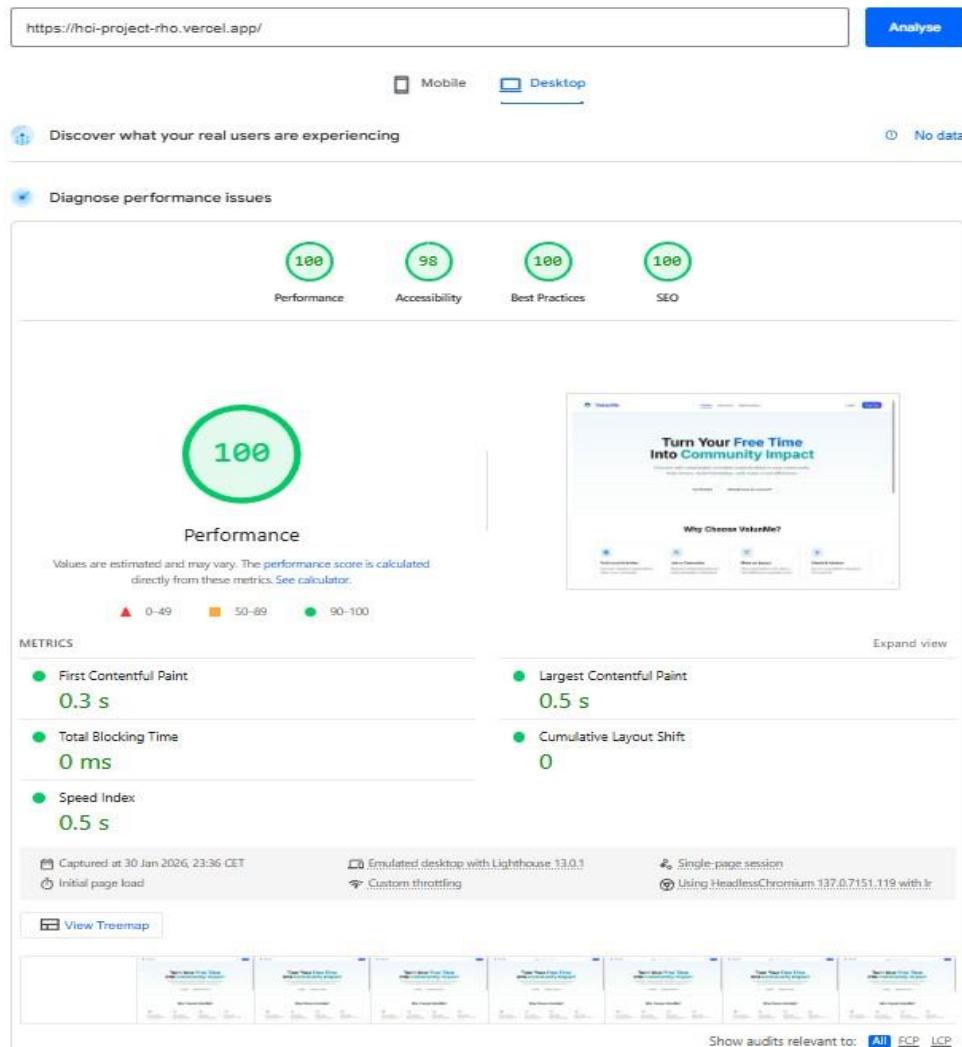


Image 14 Mobile Performance Test

13. Future Improvements

Future improvements include user ratings for events, gamification features such as badges, enhanced accessibility options, and personalization based on user preferences.

14. Conclusion

VolunMe demonstrates how Human–Computer Interaction principles can be applied to create a meaningful and socially impactful digital product. The application successfully connects volunteers with organizations, strengthens community engagement, and provides an intuitive user experience. In its current form, VolunMe fulfills its core mission of turning free time into meaningful action.