

- 1. Title:** SkillBridge: A Platform to Connect Volunteers with NGOs
- 2. Project Statement:** This project aims to create a web-based platform where skilled volunteers can connect with NGOs for short-term or long-term volunteer opportunities. The application allows users to register as volunteers or NGOs, enabling them to post or apply for skill-based opportunities.

Outcomes:

1. Volunteers and NGOs can sign up and create profiles.
2. NGOs can post opportunities categorized by skills.
3. Volunteers can browse, filter, and apply for these opportunities.
4. Matched users can interact via a built-in chat system.

3. Modules to be Implemented:

1. Module A: User Management
2. Module B: Opportunity Management
3. Module C: Matching & Communication

4. Week-wise Module Implementation and High-level Requirements with Output Screenshots:

Milestone 1: Weeks 1–2 - Basic User Management

- Implement user registration/login with role handling (Volunteer, NGO)
- Create user profiles for both roles
- Setup backend tables for users

Output:

- Registration/Login forms
 - Profile creation form
- ##### **Milestone 2: Weeks 3–4 - Profile Editing and Opportunity Creation**

- Enable profile editing for Volunteers and NGOs
- NGOs can create, edit, and delete opportunity posts
- Backend schema setup for opportunities

Output:

- Profile editing interface
- Opportunity creation UI

Milestone 3: Weeks 5–6 - Opportunity Browsing & Filtering

- Volunteers can browse and filter opportunities
- Implement filtering/search by skills, location, and duration
- Apply button and application submission logic

Output:

- Opportunity listing with filters
- Application form

Milestone 4: Weeks 7–8 - Matching & Messaging

- Match volunteers to opportunities by skills and location
- Real-time messaging using WebSocket
- Basic notification system for matches/messages

Output:

- Match suggestions panel
- Chat interface

Evaluation Criteria:

Milestone 1 Evaluation (Week 2):

- Completion of user registration and login with role-based access
- Creation of Volunteer and NGO profiles
- Backend database table for users created
- Code committed to version control

Milestone 2 Evaluation (Week 4):

- Dashboard creation for both roles
- NGOs able to create, update, and delete opportunities
- Backend structure for opportunities in place
- Code committed to version control

Milestone 3 Evaluation (Week 6):

- Volunteers able to browse and filter opportunities
- Filtering by skill/location works as expected
- Application submission stored and reflected in the database
- Code committed to version control

Milestone 4 Evaluation (Week 8):

- Real-time messaging enabled using WebSockets
- Notification system for new messages or match events
- Final integration testing complete
- Code tagged in version control

5. Design Database Schema

1. Users

- **id**: Unique identifier for the user
- **name**: Full name of the user
- **email**: User's email address (must be unique)
- **password**: Hashed password for secure login
- **role**: Defines user type – either volunteer or NGO
- **skills**: Array (JSON) of skills possessed by the user
- **location**: User's geographical location
- **bio**: Short biography or summary about the user

NGO-specific fields (only applicable if the role is NGO):

- **organization_name**: Name of the NGO
- **organization_description**: Detailed description of the NGO
- **website_url**: Website link of the organization

2. Opportunities

- **id**: Unique identifier for the opportunity
- **ngo_id**: Foreign key reference to the NGO that posted the opportunity (linked to users.id)
- **title**: Title or name of the opportunity
- **description**: Detailed information about the opportunity
- **required_skills**: Array (JSON) of skills required for the opportunity
- **duration**: Duration (e.g., "3 weeks", "10 hours/week")
- **location**: Location where the opportunity is based
- **status**: Current state of the opportunity – either open or closed (default: open)

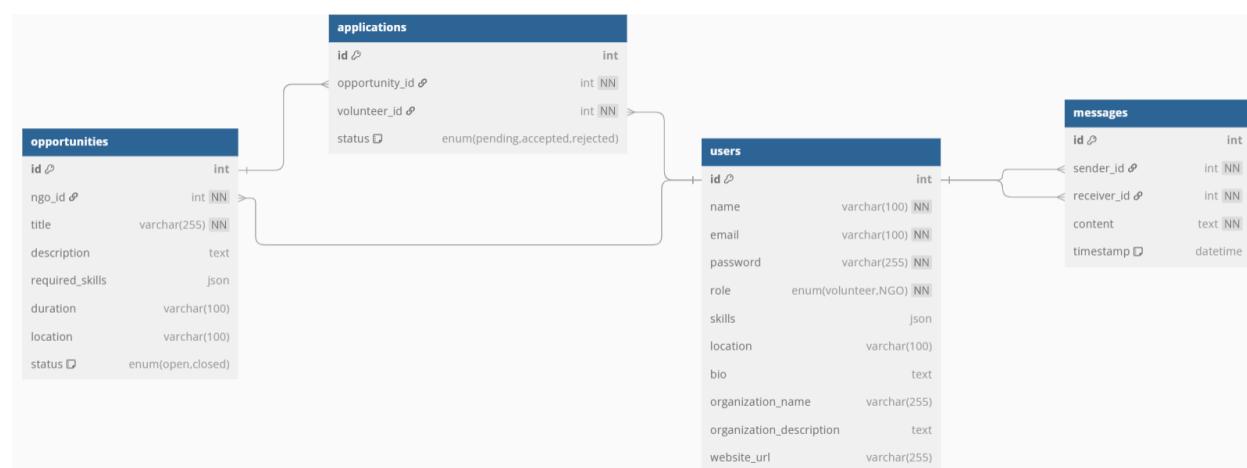
3. Applications

- **id**: Unique identifier for each application
- **opportunity_id**: Foreign key to the opportunity applied for (linked to opportunities.id)
- **volunteer_id**: Foreign key to the volunteer applying (linked to users.id)
- **status**: Status of the application – pending, accepted, or rejected (default: pending)

4. Messages

- **id**: Unique identifier for each message
- **sender_id**: User ID of the message sender (linked to users.id)
- **receiver_id**: The user ID of the message recipient (linked to users.id)
- **content**: Text content of the message
- **timestamp**: Date and time the message was sent (default: current timestamp)

Class Diagram: Entity Classes



6. Mockup's:

Milestone 1:

The image displays two versions of a user registration form. The left version is a simplified form with fields for Username, Email, Password, Full Name, I am a (with options like Volunteer), Location (Optional), Skills (Optional), and a Create Account button. The right version is a more detailed 'Create an Account' form with similar fields, plus additional sections for a dropdown 'I am a' field set to 'NGO / Organization', a 'Location (Optional)' field with placeholder 'e.g. New York, NY', an 'Organization Name' field, an 'Organization Description' text area, and a 'Website URL (Optional)' field with placeholder 'https://www.yourorganization.org'. Both forms include a 'Create Account' button at the bottom and a 'Sign in' link.

Create an Account

Join SkillBridge to connect with NGOs and volunteering opportunities

Username

Email

Password

Full Name

I am a

Volunteer

Location (Optional)

Skills (Optional)

Create Account

Already have an account? [Sign in](#)

Create an Account

Join SkillBridge to connect with NGOs and volunteering opportunities

Username

Email

Password

Full Name

I am a

NGO / Organization

Location (Optional)

Organization Name

Organization Description

Website URL (Optional)

Create Account

Already have an account? [Sign in](#)

Milestone 2:

HopeForAll Foundation
Ngo

- Dashboard
- Opportunities
- Applications
- Messages

ORGANIZATION INFO

Overview

3
Active Opportunities

1
Applications

0
Active Volunteers

1
Pending Applications

Recent Applications

John Doe
Applied for: Website Redesign for Local Shelter pending

I have 5 years of experience in web development and design. I've worked with several nonprofits before and would love to help improve your online presence.

Quick Actions

[Create New Opportunity](#)

[View Messages](#)

Dashboard Opportunities Messages

Volunteer

Test Volunteer
Volunteer

YOUR SKILLS
No skills added yet [+ Add Skills](#)

ACTIVITY
No recent activity

Find Opportunities

Discover volunteering opportunities that match your skills and interests.

[Browse All Opportunities](#)

Website Redesign for Local Shelter Open
NGO ID: 2

Help us redesign our website to improve our online presence and reach more potential adopters.

[View details >](#)

Translation of Educational Materials Open
NGO ID: 2

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy programs.

[View details >](#)

Fundraising Gala Event Coordinator Open
NGO ID: 2

Help plan and coordinate our annual fundraising gala to support children's medical research.

[View details >](#)

Your Impact

0
Applications

0
Accepted

0
Pending

0
Skills

Recent Messages

No recent messages

[View All Messages](#)

SkillBridge

[Dashboard](#) [Opportunities](#) [Applications](#) [Messages](#)

Ngo



[Back](#) Create New Opportunity

Title

e.g. Website Redesign

Description

Provide details about the opportunity

Required Skills

e.g. Web Development

Add

Duration

e.g. 2-3 weeks, Ongoing

Location

e.g. New York, NY, Remote

Status

Open

Cancel

Create

Your Opportunities

Manage your volunteering opportunities

[Create New Opportunity](#)[All \(3\)](#) [Open \(3\)](#) [Closed \(0\)](#)[All Opportunities](#) ▾

Website Redesign for Local Shelter

NGO ID: 2

Help us redesign our website to improve our online presence and reach more potential adopters.

[Web Development](#) [UI/UX Design](#)[New York, NY](#) [2-3 weeks](#)[View details >](#)[Open](#)[Edit](#)

Translation of Educational Materials

NGO ID: 2

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy programs.

[Translation](#) [Language Skills](#)[Remote](#) [Ongoing](#)[View details >](#)[Open](#)[Edit](#)

Fundraising Gala Event Coordinator

NGO ID: 2

Help plan and coordinate our annual fundraising gala to support children's medical research.

[Event Planning](#) [Marketing](#)[Chicago, IL](#) [3 months](#)[View details >](#)[Open](#)[Edit](#)

Milestone 3:



Volunteering Opportunities

Find opportunities that match your skills and interests

Skills

 Search skills...[Web Development](#) [Translation](#) [Marketing](#)

Location

 Search locations...[New York](#) [Remote](#) [Chicago](#)

Status

[Open](#)[Reset Filters](#)

Website Redesign for Local Shelter

NGO ID: 2

Help us redesign our website to improve our online presence and reach more potential adopters.

[Web Development](#) [UI/UX Design](#)[New York, NY](#) [2-3 weeks](#)[View details >](#)[Open](#)[Apply](#)

Translation of Educational Materials

NGO ID: 2

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy programs.

[Translation](#) [Language Skills](#)[Remote](#) [Ongoing](#)[View details >](#)[Open](#)[Apply](#)

Applications

Manage volunteer applications for your opportunities

 Search volunteers...[All Applications](#)[Reset](#)[All \(1\)](#) [Pending \(1\)](#) [Accepted \(0\)](#) [Rejected \(0\)](#)

Website Redesign for Local Shelter

[Pending](#)

John Doe • Applied May 8, 2025

I have 5 years of experience in web development and design. I've worked with several nonprofits before and would love to help improve your online presence.

[Web Development](#) [UI/UX Design](#)[Accept](#) [Reject](#)[Message](#)

Milestone 4:

Messages

Test NGO
Ngo
Hello! I noticed you have web development skills. We're looking for help with our Translation of Educational...

NYC Animal Rescue
Ngo
Hello! I'm interested in your Website Redesign project. I have experience with responsive design and improving us...

Test NGO
Ngo

Hello! I noticed you have web development skills. We're looking for help with our Translation of Educational Materials project. Would you be interested?

May 8, 6:47 PM

Great! We primarily need translations in Spanish and French, but if you have experience with other languages, that would be helpful too. Do you have availability in the coming weeks?

May 8, 6:47 PM



May 8, 6:47 PM

Responsive Web Pages:

For Volunteer :

SkillBridge

- Dashboard
- Opportunities
- Messages

- Test Volunteer**
Volunteer
- Your Profile
- Sign out

Test Volunteer
Volunteer

YOUR SKILLS
No skills added yet [+ Add Skills](#)

ACTIVITY
No recent activity

Find Opportunities
Discover volunteering opportunities that match your skills and interests.

[Browse All Opportunities](#)

Website Redesign for Local Shelter [Open](#)
NGO ID: 2

Help us redesign our website to improve our online presence and reach more potential adopters.

[Web Development](#) [UI/UX Design](#)

[View details >](#)

Translation of Educational Materials [Open](#)
NGO ID: 2

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy...

[Browse All Opportunities](#)

Website Redesign for Local Shelter [Open](#)

SkillBridge

Test Volunteer
Volunteer

YOUR SKILLS
No skills added yet [+ Add Skills](#)

ACTIVITY
No recent activity

Find Opportunities
Discover volunteering opportunities that match your skills and interests.

[Browse All Opportunities](#)

Website Redesign for Local Shelter [Open](#)
NGO ID: 2

Help us redesign our website to improve our online presence and reach more potential adopters.

[Web Development](#) [UI/UX Design](#)

[View details >](#)

Translation of Educational Materials [Open](#)
NGO ID: 2

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy...

Fundraising Gala Event Coordinator [Open](#)
NGO ID: 2

Help plan and coordinate our annual fundraising gala to support children's medical research.

[Event Planning](#) [Marketing](#)

[View details >](#)

Your Impact

0 Applications	0 Accepted
0 Pending	0 Skills

Recent Messages

No recent messages

[View All Messages](#)

SkillBridge

Volunteering Opportunities

Find opportunities that match your skills and interests

Skills

[Web Development](#) [Translation](#) [Marketing](#)

Location

[New York](#) [Remote](#) [Chicago](#)

Status
[Open](#)

[Reset Filters](#)

Website Redesign for Local Shelter [Open](#)
NGO ID: 2

Help us redesign our website to improve our online presence and reach more potential adopters.

[Web Development](#) [UI/UX Design](#)

[View details >](#)

Translation of Educational Materials [Open](#)
NGO ID: 2

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy programs.

[Translation](#) [Language Skills](#)

[View details >](#)

[Apply](#)

Fundraising Gala Event Coordinator [Open](#)
NGO ID: 2

Help plan and coordinate our annual fundraising gala to support children's medical research.

[Event Planning](#) [Marketing](#)

[View details >](#)

[Apply](#)

For NGO's & Organisations:

SkillBridge

Test NGO
Ngo

Hello! I noticed you have web development skills. We're looking for help with our Translation of Educational...

NYC Animal Rescue
Ngo

Hello! I'm interested in your Website Redesign project. I have experience with responsive design and improving...

Messages

SkillBridge

- Dashboard
- Opportunities
- Applications
- Messages

HopeForAll Foundation
Ngo

Your Profile

Sign out

HopeForAll Foundation
Ngo

- Dashboard**
- Opportunities
- Applications
- Messages

ORGANIZATION INFO

Overview

Recent Applications

Test NGO
Applied for: Website Redesign for Local Shelter pending

I have 5 years of experience in web development and design. I've worked with several nonprofits before and would love to help improve your online presence.

Quick Actions

Create New Opportunity

View Messages

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SkillBridge

Your Opportunities
Manage your volunteering opportunities

Create New Opportunity

All (3) Open (3) Closed (0) All Opportunities ▾

Website Redesign for Local Shelter
NGO ID: 2
Open

Help us redesign our website to improve our online presence and reach more potential adopters.

Web Development UI/UX Design

① New York, NY ② 2-3 weeks

[View details >](#)

Edit

Translation of Educational Materials
NGO ID: 2
Open

Translate educational materials from English to Spanish, French, or Arabic to support our global literacy programs.

Translation Language Skills

① Remote ② Ongoing

[View details >](#)

Create New Opportunity

Title
e.g. Website Redesign

Description
Provide details about the opportunity

Required Skills
e.g. Web Development Add

Duration
e.g. 2-3 weeks, Ongoing

Location
e.g. New York, NY, Remote

Status
Open Cancel Create

Applications
Manage volunteer applications for your opportunities

Search volunteers...

All Applications ▾ Reset

All (1) Pending (1) Accepted (0) Rejected (0)

Website Redesign for Local Shelter
Test NGO Applied May 8, 2025 Pending

I have 5 years of experience in web development and design. I've worked with several nonprofits before and would love to help improve your online presence.

Web Development UI/UX Design

Accept Reject Message