

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)

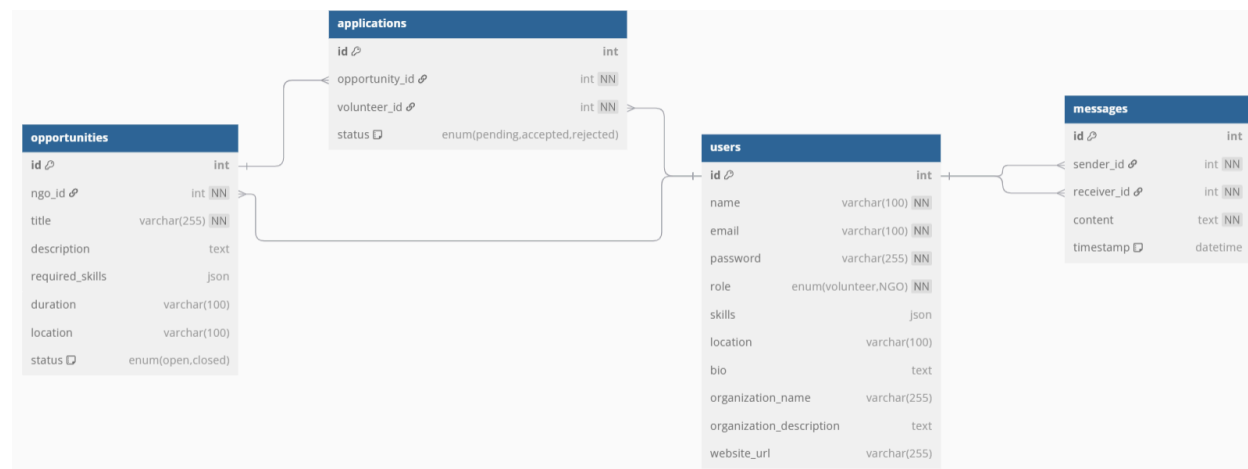
3. Applications

- **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:

Create an Account

Join SkillBridge to connect with NGOs and volunteering opportunities

Username

Choose a username

Email

Enter your email

Password

Create a password

Full Name

Enter your full name or organization name

I am a

Volunteer

Location (Optional)

e.g. New York, NY

Skills (Optional)

e.g. web development, teaching, design (comma separated)

Create Account

Already have an account? Sign in

Create an Account

Join SkillBridge to connect with NGOs and volunteering opportunities

Username

Choose a username

Email

Enter your email

Password

Create a password

Full Name

Enter your full name or organization name

I am a

NGO / Organization

Location (Optional)

e.g. New York, NY

Organization Name

Enter your organization's name

Organization Description

Tell us about your organization's mission and goals

Website URL (Optional)

https://www.yourorganization.org

Create Account

Already have an account? Sign in

Milestone 2:



HopeForAll Foundation

Ngo

Dashboard

Opportunities

Applications

Messages

ORGANIZATION INFO

Overview

3Active Opportunities

1Applications

0Active Volunteers

1Pending Applications

Recent Applications

View All

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



TV

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 DevelopmentUI/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.

TranslationLanguage Skills

View details >

Fundraising Gala Event Coordinator

Open

NGO ID: 2

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

Event PlanningMarketing

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

SkillBridge

Dashboard

Opportunities

Applications

Messages

Ngo

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

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

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

Edit

Milestone 3:

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

New York, NY

2-3 weeks

View details >

Apply

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

Remote

Ongoing

View details >

Apply

Applications

Manage volunteer applications for your opportunities

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

5/8/2025

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

NYC Animal Rescue

Ngo

5/8/2025

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

May 8, 6:47 PM

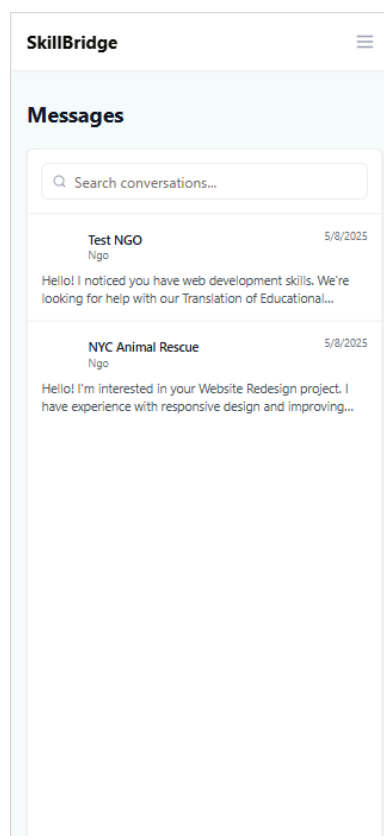
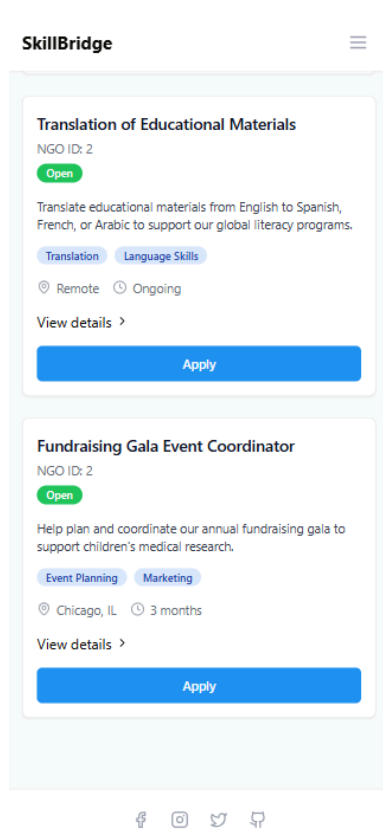
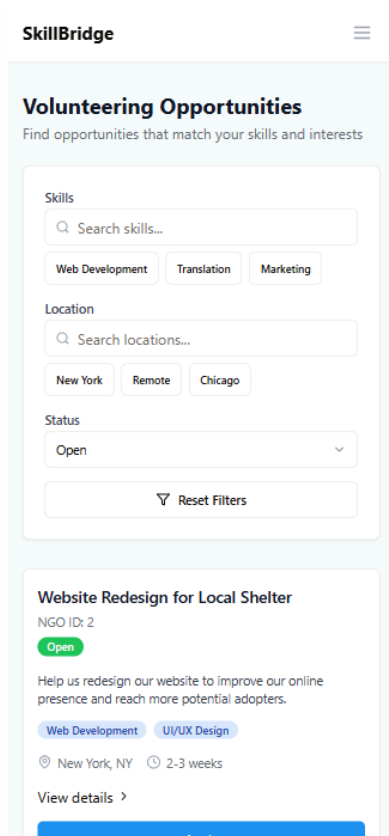
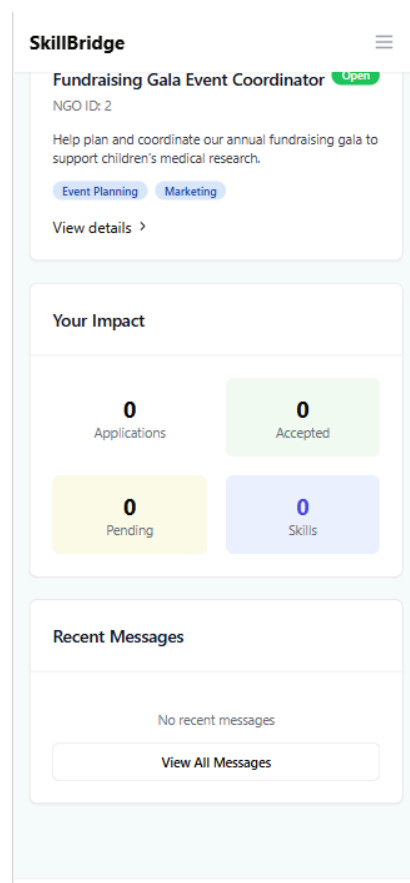
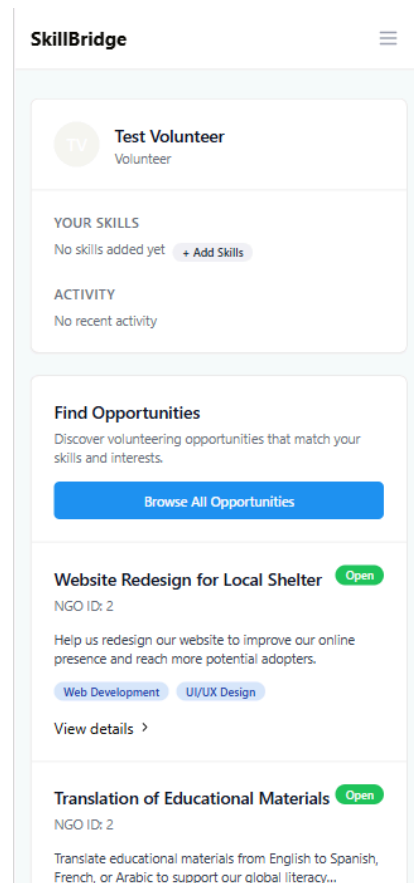
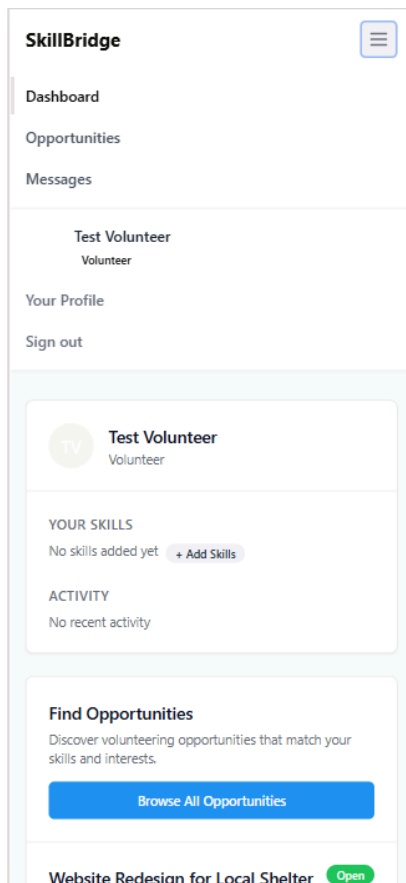
Great! We primarily need translations in Spanish and French, but if you have experience with other languages, that would be helpful too. Do you have availability in the coming weeks?

May 8, 6:47 PM

Send

Responsive Web Pages:

For Volunteer :



For NGO's & Organisations:

SkillBridge

Dashboard

Opportunities

Applications

Messages

HopeForAll Foundation

Ngo

Your Profile

Sign out

HopeForAll Foundation

Ngo

Dashboard

Opportunities

Applications

Messages

ORGANIZATION INFO

Overview

SkillBridge

Overview

3

Active Opportunities

1

Applications

0

Active Volunteers

1

Pending Applications

Recent Applications

View All

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

SkillBridge

Recent Applications

View All

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 DevelopmentUI/UX Design

New York, NY2-3 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.

TranslationLanguage Skills

RemoteOngoing

View details >

SkillBridge

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

SkillBridge

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 DevelopmentUI/UX Design

AcceptReject

Message