Name: Puna Poudel

Assignment: 2.1 - Volunteer Event Manager: TDD Assignment

Course: CSD460-H326 Capstone in Software Development (2255-DD)

Date: 03/23/2025

# Module 2: Volunteer Event Manager - Technical Design Document (TDD)

## 1. Introduction

### 1.1 Purpose

The purpose of this project is to design and develop a web-based Volunteer Event Management System. The platform will allow community members to register as volunteers, browse upcoming events, sign up for events, and track their volunteer hours. Organizers will be able to post events, manage volunteer lists, and review participant data. The system will emphasize usability, accessibility, and scalability for future features such as mobile access or certificate generation.

### 1.2 Terminology

|  |  |
| --- | --- |
| Term | Definition |
| User | Any visitor to the Volunteer Event Manager platform. |
| Volunteer | A registered user who can sign up for and participate in events. |
| Organizer | A registered user who creates and manages events. |
| Event | A community service opportunity posted by an organizer. |
| Session | Temporary user state maintained during login. |
| MySQL | The relational database for storing users, events, and attendance data. |
| Story Points | Relative effort level needed to complete a user story. |
| ERD | Entity-Relationship Diagram used to design the database structure. |

### 1.3 User Personas

* Persona: Rina Gurung

Age: 22

Background: A college student looking to fulfill volunteer hour requirements for her scholarship.

Goals: Sign up for local events, log her hours, and download participation reports.

* Persona: Milan Rai

Age: 38

Background: A community organizer planning a series of cleanup drives.

Goals: Post event details, track volunteer signups, and manage attendance efficiently.

* Persona: Maya Thapa

Age: 60

Background: A retired teacher who volunteers to stay active and meet new people.

Goals: Easily browse events, register without hassle, and receive reminders.

### 1.4 User Stories

|  |  |  |
| --- | --- | --- |
| Persona | User Story | Story Points |
| Rina Gurung | As a new user, I want to create an account with my email and password so I can sign up for volunteer events. | 2 |
| Rina Gurung | As a volunteer, I want to view my past volunteer events and hours so I can track my progress. | 2 |
| Rina Gurung | As a logged-in user, I want to register for an event and receive a confirmation email. | 3 |
| Milan Rai | As an organizer, I want to create new events with date, time, and location so volunteers can join. | 3 |
| Milan Rai | As an organizer, I want to view a list of registered volunteers so I can plan resources. | 2 |
| Milan Rai | As a user, I want to search for events by date or location so I can find relevant opportunities. | 1 |
| Maya Thapa | As a senior user, I want the website to be clean and simple so I can register easily. | 1 |
| Maya Thapa | As a volunteer, I want to receive event reminders via email so I don’t forget. | 2 |
| Maya Thapa | As a volunteer, I want to print my participation certificate after each event so I can keep a record for future use. | 2 |

### 1.5 Work Estimations (To-Do List)

|  |  |
| --- | --- |
| Task | Estimation (Story Points) |
| Set up registration form with email/password (with basic validation) | 2 |
| Create login/logout flow with session management | 1 |
| Build event creation form for organizers | 3 |
| Design a calendar/list view for browsing events | 2 |
| Set up MySQL schema for users, events, and signups | 2 |
| Implement event registration functionality with confirmation emails | 2 |
| Create a volunteer dashboard for tracking past events and hours | 2 |
| Add search and filter features to event list | 1 |
| Develop email notification system (event reminders, confirmations) | 3 |

## 2. Design

(To be completed in future modules)

### 2.1 Prototypes – TBD

### 2.2 ERD – TBD

## 3. QA Testing

(To be completed in future modules)

### 3.1 QA Test Plan – TBD

Final Notes:  
This Technical Design Document outlines the initial project plan for a Volunteer Event Management System. It includes a purpose statement, glossary of terms, user personas, user stories, and a to-do list with effort estimations. Future updates will expand on design prototypes and quality assurance testing. This TDD helps guide project execution in a structured, clear manner.