

# Volunteer Management Application

## 1. Executive Summary

This project aims to develop a Volunteer Management Application that streamlines recruitment, scheduling, communication, reporting, and recognition. The system will reduce administrative overhead while improving volunteer engagement and retention. It supports three levels of access,

Admins, Coordinators, and Volunteers, each with tailored functionality and permissions.

The application will be mobile-first, secure, and integrated with external systems such as calendars (Google/Outlook/Apple), messaging channels (SMS, email, push), and reporting tools.

## 2. User Access Levels

### Admin (Head Office / Managers)

- Responsibilities: Strategic oversight, compliance, reporting, communications.
- Capabilities:
  - o Full CRUD access to users, programs, and shifts.
  - o Configure automated reminders and notifications.
  - o Generate advanced dashboards and compliance reports.
  - o Monitor training/certification validity.
  - o Customize communication templates (SMS, email).

### Coordinator / Supervisor (Regional Leads)

- Responsibilities: Regional scheduling, volunteer supervision, communication.
- Capabilities:
  - o Post and edit shifts and events.
  - o Approve/reject volunteer sign-ups.
  - o Send targeted notifications to volunteers.
  - o Track attendance and record performance notes.
  - o Mark notes as Private (internal use only) or Shared (visible to volunteers).
  - o View dashboards on volunteer availability and gaps.

## Volunteer (Individual Members)

Internal - Interne

Internal - Interne

- Responsibilities: Participate in shifts, keep availability updated, respond to reminders.
- Capabilities:
  - o Manage personal profile (skills, availability, certifications).
  - o Sign up for available shifts (or join waitlist).
  - o Receive automated shift reminders (48h + 2h default).
  - o Sync shifts with personal calendar.
  - o Confirm/cancel attendance directly from reminders.
  - o View supervisor feedback, recognition notes, and earned badges.

## 3. Cross-Level Features

- Automated Shift Reminders: Configurable at the admin level, default at 48h and 2h.
- Availability Management: Volunteers declare recurring or one-off availability.
- Shift Notifications: Targeted alerts for shifts that match volunteer availability.
- Waitlist System: Auto-promotes volunteers when spots open.
- Supervisor Notes: Feedback linked to specific shifts; private or shared visibility.
- Secure Messaging Hub: Coordinator ↔ Volunteer communication.
- Recognition System: Badges, certificates, milestones to encourage retention.
- Data Security: Role-based permissions, 2FA, encryption, compliance with GDPR/PIPEDA.

## 4. Example Workflow

1. Volunteer sets weekly availability in profile.
  2. Coordinator posts new shift (time, role, location).
  3. System matches volunteers by availability and sends targeted notifications.
  4. Volunteer accepts shift in one click; waitlist enabled if full.
  5. System schedules reminders (48h & 2h before).
- Internal - Interne
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6. Volunteer receives reminders and confirms attendance.
  7. Coordinator records attendance and adds notes.
  8. Volunteer sees shared feedback and recognition in app.
  9. Admin generates regional or global reports on volunteer activity.

## 5. Technical Requirements

- Frontend: Mobile-first responsive web app (React/Next.js); optional mobile app.
- Backend: Microservices architecture; APIs with RBAC.
- Database: Relational DB (Postgres/MySQL) with caching (Redis) for performance.
- Notifications: SMS (Twilio), Email (SendGrid), Push (Firebase).
- Integrations: Calendar APIs (Google/Outlook/Apple), LinkedIn badges, CSV/Excel export.
- Security: OAuth2 authentication, two-factor authentication (2FA), audit logs, encrypted storage.

## 6. Reporting & Analytics

- Admin Dashboards:
  - o Hours volunteered per region/project.
  - o Volunteer retention rates.
  - o Demographic and geographic breakdowns.
  - o Training/compliance tracking.
- Coordinator Dashboards:
  - o Local volunteer availability vs. shifts filled.
  - o Attendance and participation logs.
  - o Shift coverage gaps.