

# Umrah Navigation Messenger MVP (v0.1)

Tech Stack: Next.js + Postgres + RapidAPI Audience: Developers & Managers Version: v0.1

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## 0. Overview

A lightweight, web-based messenger for Umrah groups. Guides create groups, pilgrims join via code, and everyone communicates through text + image messages. No GPS, maps, or payments in v0.1. Designed to be built in 1–3 days.

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## 1. Product Summary (Manager View)

### 1.1 Goal

Enable a guide to coordinate pilgrims during Umrah using a simple chat system with text and photo sharing.

### 1.2 Why This MVP

- Pilgrims frequently get lost and cannot explain where they are.
- Photos are enough for guides to identify location.
- A simple website is faster than an app.
- Early beta will be free.

### 1.3 Roles

#### Guide

- Create groups
- Share join code
- Send announcements
- View/sort incoming text + photo messages

#### Pilgrim

- Join group via code
- Send text + photos
- Receive instructions

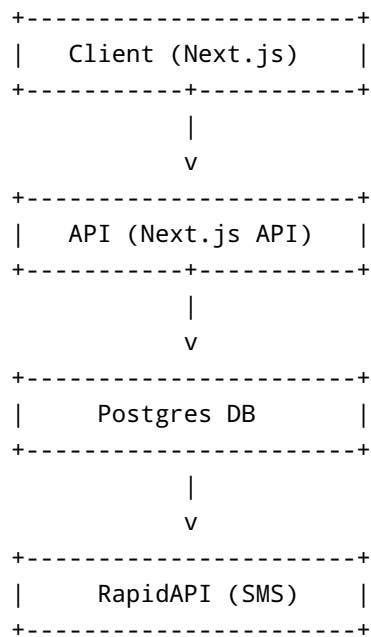
## 1.4 In Scope

- Web only (mobile browser optimized)
- Role selection
- Group creation & join-by-code
- Text and image chat
- Guide announcements
- RapidAPI SMS for announcements (optional)

## 1.5 Out of Scope

- GPS
  - Maps
  - Payments
  - AI
  - Push notifications
- 

## 2. Architecture



## 3. Database Schema (Postgres)

### 3.1 ER Diagram

```
+-----+           +-----+           +-----+
|  users  | 1       * |  groups  | 1       * |  messages  |
+-----+-----+-----+-----+-----+-----+
```

### 3.2 Tables

users

Add fields: - `role` TEXT ('guide'/'pilgrim') - `current_group_id` UUID - `phone` TEXT (optional for SMS)

groups

- `id` UUID PK
- `name` TEXT
- `code` TEXT UNIQUE
- `guide_id` UUID FK → users

messages

- `id` UUID PK
- `group_id` UUID FK
- `sender_id` UUID FK
- `type` TEXT ('text', 'image', 'announcement')
- `text` TEXT
- `image_url` TEXT
- `created_at` timestamp

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## 4. API Endpoints (Next.js API Routes)

### 4.1 Create Group (Guide)

POST /api/umrah/groups - Validates guide role - Generates random group code - Returns group data

### 4.2 Join Group (Pilgrim)

POST /api/umrah/groups/join - Validates role - Matches code → assigns current\_group\_id

## 4.3 Get Current Group + Messages

GET /api/umrah/groups/current - Returns group & all messages

## 4.4 Send Text Message

POST /api/umrah/messages

## 4.5 Send Image Message

POST /api/umrah/messages/image - Multipart upload - Stores image in S3 or configured file storage

## 4.6 Send Announcement (Guide Only)

POST /api/umrah/messages/announcement - Inserts announcement - Sends SMS via RapidAPI (optional)

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# 5. Frontend Pages (Next.js)

## 5.1 /umrah/role

- Role selection UI
- Save user role → redirect

## 5.2 /umrah/guide

- Create group form
- List groups created by guide

## 5.3 /umrah/join

- Pilgrim enters group code

## 5.4 /umrah/chat

- Shared chat interface
- Message list
- Text box
- Image upload
- Announcement button (guide only)
- Polling every 3–5 seconds

ASCII Layout:

```

+-----+
| Group Title (Code for guide) |
+-----+
| Messages list |
| - text/image/announcement |
+-----+
| [Input...] [Send] [Attach] [Announce]* |
+-----+

```

\*Guide only

## 6. UI Screen Designs (ASCII)

This section defines the core UI screens as ASCII wireframes. Each screen has an ID (S1, S2, ...) that can be used in tasks, tickets, and discussions.

### S1 – Entry / Role Selection ( /umrah/role )

```

+-----+
|                UMRAH GUIDE APP                |
+-----+
| [ App Logo ] |
|              |
| Welcome! Please choose your role: |
|              |
| (1) I am a GUIDE |
|   - Create and manage a group |
|              |
| (2) I am a PILGRIM |
|   - Join an existing group |
|              |
| [ CONTINUE ] (enabled after selecting a role) |
|              |
| [ Footer: small help text / link ] |
+-----+

```

**Notes:** - On mobile, everything is centered and vertical. - Ties to: Workflow W1 (role & auth).

## S2 – Guide Dashboard ( /umrah/guide )

```
+-----+
| [← Back]           My Umrah Groups          |
+-----+
| Create New Group   |
| -----           |
| Group Name: [_____]|
|                   |
| [ CREATE GROUP ]   |
|                   |
| -----           |
| Existing Groups (owned by me):              |
|                   |
| +-----+         |
| | Group Name      | Code   | Actions      |
| +-----+         |
| | My Umrah Group 1 | ABC123 | [ OPEN ]   |
| | Evening Tawaf Group | X7Z9KQ | [ OPEN ]   |
| +-----+         |
|                   |
| [ Hint: Share the code with your pilgrims. ] |
+-----+
```

**Notes:** - "OPEN" sets `current_group_id` and navigates to S4 ( /umrah/chat ). - Ties to: Workflows W2 (group creation) and partly W4 (chat navigation).

## S3 – Pilgrim Join Group ( /umrah/join )

```
+-----+
| [← Back]           Join Group              |
+-----+
| Enter the code from your guide:            |
|                   |
| Group Code: [ A B C 1 2 3 ]                |
|                   |
| [ JOIN GROUP ]                             |
|                   |
| If you do not have a code, please ask your guide. |
|                   |
| [ Error message area (e.g. "Code not found") ] |
+-----+
```

**Notes:** - After successful join → set `current_group_id` → go to S4. - Ties to: Workflow W3.

## S4 – Group Chat ( `/umrah/chat` )

```
+-----+
| [← Back]  [ Group Name ]          (Code: ABC123)* |
+-----+
|
| [System]: You joined "My Umrah Group" |
|
| [Guide] (10:01) |
| [ANNOUNCEMENT] Meet at Gate 79 at 10:15pm. |
| ----- |
| [Pilgrim 1] (10:03) |
| Salaam, I am lost. |
|
| [Pilgrim 1] (10:03) |
| [Thumbnail of uploaded image] |
|
| [Guide] (10:04) |
| Walk straight until you see the large green sign. |
|
| ... (scrollable message history) ... |
|
+-----+
| [ Type your message here..... ] |
+-----+
| [ ATTACH PHOTO ] [ SEND ] [ ANNOUNCE ]** |
+-----+
```

\* Show group code only to the guide.

\*\* Show `ANNOUNCE` only if role = guide.

**Notes:** - Messages are displayed in a vertical scroll region. - Announcements are visually highlighted (e.g., border/shade). - Ties to: W4 (text chat), W5 (image messages), W6 (announcements).

## S5 – Optional Profile / Settings (Future)

*Not required for v0.1, but reserved for later.*

```
+-----+
| [← Back]          Profile |
+-----+
```

```
+-----+
| Name:  [_____] |
| Phone: [_____] |
|          |
| Role:  GUIDE / PILGRIM (read-only after set) |
|          |
| [ SAVE CHANGES ] |
+-----+
```

This can be added when we want users to manage phone numbers or other info.

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## 6. RapidAPI Integration

(SMS)

### Purpose

Send SMS to group members when a guide posts an announcement.

### Steps

1. After announcement insert → fetch group members with phone numbers
  2. Send SMS via RapidAPI (non-blocking)
  3. Log failures but don't block response
- 

## 7. Workflows → Unit Tasks

### Workflow W1: Role & Auth

- T1.1 – Add fields to `users`
- T1.2 – Role update endpoint
- T1.3 – Role UI

### Workflow W2: Group Creation

- T2.1 – Create `groups` table
- T2.2 – `/groups` API
- T2.3 – `/umrah/guide` page



## Workflow W3: Join Group

- T3.1 – `/groups/join` API
- T3.2 – `/umrah/join` page

## Workflow W4: Text Chat

- T4.1 – Create `messages` table
- T4.2 – `/groups/current` API
- T4.3 – Text message API
- T4.4 – Chat UI
- T4.5 – Polling

## Workflow W5: Image Messages

- T5.1 – Storage setup (S3)
- T5.2 – Image upload endpoint
- T5.3 – Display images in chat

## Workflow W6: Announcements + SMS

- T6.1 – Announcement endpoint
  - T6.2 – Guide role enforcement
  - T6.3 – RapidAPI integration
  - T6.4 – Highlight announcement UI
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# 8. Sprint Plan (3 Days)

## Day 1 – Backend Foundations

- Migrations
- Group + join APIs
- Auth checks

## Day 2 – Frontend + Text Chat

- Role page
- Guide dashboard
- Join page
- Chat UI + text messages

## Day 3 – Images + SMS + Testing

- Image upload

- Announcements
  - SMS
  - Mobile testing
- 

## 9. TL;DR for Developer

- Build `/umrah/role`, `/umrah/guide`, `/umrah/join`, `/umrah/chat`
- Add `groups` + `messages` tables
- APIs for: create group, join, get messages, send text, send image, send announcement
- Polling every 3–5 seconds
- RapidAPI SMS only for announcements
- Entire MVP should take 1–3 days