



Sode Sri Vadiraja Matha Mobile App Requirements Document

1.0 Executive Summary

This document details the requirements for a cross-platform mobile app promoting Sode Sri Vadiraja Matha, Udupi. It incorporates all specified sections, admin controls, data consent, and voice search, prioritizing devotee engagement across the country.

2.0 App Overview

Target Android/iOS users with bilingual (English/Kannada) interface, offline capabilities, and bottom-tab navigation. Integrate Firebase for backend, Google Maps/ML Kit for locations/voice, and Razorpay/UPI for payments. Goals: Spiritual access, bookings, and community building.

3.0 User Features

14 navigable sections with search bar supporting voice control via device mic / keyboard.

3.1 Login Page

- All app users to login using their mobile number via OTP. While logging in, they should have access to read Privacy Policy, Terms & Conditions and provide confirmation before logging in.

3.2 Home Page

- Logo of the matha, photos of Sri Sri Vishwothama Theertha Swamiji and Sri Sri Vishwavallabha Theertha Swamiji



- Top 5 news articles in form of tiles. Content for these tiles and its related image (to be displayed on the tile), will be uploaded by the admin.



- Flash updates for announcements and festival alerts (ex aaradhane, utsava) on a Carousel bar – which will be updated by the admin.
- Darshana and Prasada timings in Sode

Location	Darshan	Prasada
Sode	5:00 a.m. to 8:30 a.m.	Noon 11:30 a.m.

Location	Darshan	Prasada
	5:00 p.m. to 7:30 p.m.	Evening 7:30 p.m.

- Social Media links (@sodematha on Instagram / Facebook / YouTube / WhatsApp Channel).

3.3 History and Parampara

- History of the Sri Matha

Please take the content from <https://www.sodematha.in/index.html>

- Detailed information on Sri Madhwacharya and all the peetadhipathi's of Sode Sri Vadiraja matha, starting from Sri Vishnu Teertharu
 - Arrange all the gurus in the order of their peetarohana and each one should be displayed as tile. On clicking each tile, it should take to the details of the guru, which is listed in the next section.
 - For each guru in the parampara, list the following
 - Ashrama Guru (link to the previous peetadhipathi)
 - Ashrama Shishya (link to the next peetadhipathi)
 - Photo of the peetadhipathi
 - Timelines of peetha (from – to year)
 - A text section detailing about the peetadhipathi
 - Poorvashrama Name
 - Aaradhane (ex. Magha Shudha Navami)
 - Key works delivered
 - Location of Vrindavana, shown on Google Map
 - Address of Vrindavana
- Detailed information on Sri Bhootarajaru
 - Photo
 - A text section detailing about Sri Bhootarajaru

3.4 Event Calendar

- Dynamic Panchanga-integrated view (Weekday and Tithi information) ; filters, notifications for Aradhana/Paryaya or any other event across the country. Admin should be able to update and publish these events on real time basis.

3.5 Gallery

- Event albums (photos/videos); organized by albums . Admin should be able to add these content and publish on real time basis.

3.6 Artefacts

- Matha publications (text files / pdf / audio files); search (voice / keyboard), categories (Pravachana, Reference Materials / Publications / Etc).

3.7 Room Booking Form

- Sode-specific; date picker, consent checkbox ("Allow data storage?"), submission ref. Request to be sent as an email to office@sodematha.in.

3.8 Sevas in Sode

- List of Sevas (please refer to <https://www.sodematha.in/online-seva.html>). On selecting each, it should lead to the form to provide details of the sevakartha (as shown below), consent to store the data on the database for further communications. On submitting this form, it should lead to payment section.
- If the user has registered and shared their details, pre-fill the form with information on the database, with an option for the user to edit if they want to change any information.
- If you find the information has been changed (ex. Mobile, Address, Email), then ask if they want to update this information in the central database. Post confirmation update the user profile.
- Provide a section for Cancellation & Refund Policy

3.9 Sevas in Udupi Paryaya of Sode Sri Vadiraja Matha

- Requirements are same as the previous section.
- This section would be activated only during Paryaya and would be controlled by the admin

3.10 Branch Dictionary

- Google Maps pins, addresses, contacts; search/voice-enabled.
- Please use the details available in <https://www.sodematha.in/contact-us.html>

3.11 Youth Quiz

- A section for quizzes on Siddhanta and matha related topics
- Leaderboards, badges (users tracked based on mobile number). If they had given consent to store data, then their name would be displayed from the database.

3.12 Tithinirnaya Panchanga

- Integrate with the existing Sri Matha's tithi nirnaya panchanga app (all the features currently available in the matha's app)

3.13 Devotee Registration and Profile Updates

- Form for providing details (key information similar to what's shown in the section for Seva.

- email/mobile; checkboxes for (a) updates, (b) volunteer signup. Consent: "Consent to data storage for communications." Profile dashboard for unsubscribes.

3.14 Admin Backend

- Web/app-accessible dashboard (Firebase Auth, roles):
 - Enable/disable sections (hidden from users if off).
 - Content CRUD (announcements, media, timings).
 - Analytics: Daily/weekly/monthly sevas booked, amounts collected (charts via Firebase).
 - User data export (GDPR / Data privacy policy compliant).
 - Bulk notifications, volunteer approvals.

3.15 Contact Us

- Provide Sode and Udupi matha's contact details, email address and mail address, along with google location map.

4.0 Non-Functional Requirements

- **Security/Privacy:** Explicit consent modals for forms; data minimization (name/email/mobile only); anonymized analytics.
- **Performance:** <2s loads; offline Home/History/Darshan. Ability to support at least 1000 users at the same time.
- **Accessibility:** VoiceOver support, high-contrast.
- **Tech:** Flutter, Firebase (Firestore, Functions, Analytics), Speech-to-Text API.
- **Compliance:** Indian DPDP Act for consents

5.0 Details on Hackathon

5.1 Scope / Features to be delivered

- Features to be designed, developed and showcased as part of the hackathon
 - Login Page
 - Home Page
 - Devotee Registration and Profile Updates
 - Any one amongst the following
 - Event Calendar / Gallery / Artefacts / History & Parampara
 - Any one amongst the following
 - Room booking form / one of the seva's / Quizzes
 - Any additional scope / features delivered apart from what have been mentioned above, will be considered as an additional advantage in scoring.
- Framework to accommodate ability to update content / information via Admin (even though Admin feature need not be delivered during the hackathon)
- Non-functional requirements should be tested for

5.2 Key Deliverables

Following artefacts have to be delivered as part of the final submission. Location for storage will be subsequently notified.

- Wireframes (app structure and user flows)
- UI/UX design
- Source code
- Functional App (executable file)
- Backend integration (API documentation, database schema, etc.)

5.3 Hackathon timelines

- Access to our GIT library will be provided to the primary email ID by early Feb 2026. You should start uploading your artefacts to this library. Please name the folder with your team name.
- The demo version should be ready by 14th Feb 2026. All artefacts have to be submitted / checked in to the respective location by 12:00 noon of 14th Feb 2026. We will disable access to the GIT library by this time.
 - If your artefacts are not checked in by this time, then your entry will not be considered for final presentation on the finale day.
- Finale will be held in Bangalore on 15th Feb 2026 (location details to be shared close to the event, via WhatsApp group)
- Winners will be announced online by 15th March 2026 and winners would be felicitated during the Bhavisameera Sri Vadiraja Vaibhavotsava, held at Sri Kshetra Hoovinakere between March 23 – 17, 2026.
 - Additional details will be shared with the winners in due course of time.

5.4 Terms & Conditions

Sode Sri Vadiraja Matha Hackathon Terms and Conditions outline participation rules, ensuring a fair and legally compliant event for developing a mobile app on Matha related information.

- **Eligibility**
Participants must be at least 18 years old and residents of India, capable of entering binding contracts under Indian law. Teams of 1-5 members are allowed, with all members meeting eligibility criteria. Individual or team registration requires agreeing to these terms via an online form.
- **Event Rules**
The hackathon runs for a fixed duration (Jan 31 - Feb 13), requiring original app development focused on Sode Sri Vadiraja Matha content (specifics will be shared with shortlisted participants). Participants supply their own devices, internet, and tools; pre-existing code is permitted only if open-source licensed and disclosed. Submissions must be via GitHub or a designated platform by the deadline, judged on innovation, functionality, Matha relevance, and user experience.
- **Code of Conduct**
Participants agree to act respectfully, avoiding harassment, discrimination, or disruptive behaviour; violations lead to immediate disqualification. No plagiarism, cheating, or use of unauthorized third-party assets is allowed—all work must be original or properly licensed. Compliance with Indian laws, including data privacy under the DPDP Act 2023, is mandatory; organizers reserve the right to disqualify for any unethical conduct.
- **Intellectual Property Rights**
All submissions grant the organizers and Sode Sri Vadiraja Matha a perpetual, worldwide, royalty-free license to use, modify, distribute, and commercialize the app for non-profit or Matha-related purposes. The winning app will receive **cash prize** as anugraha prasada from Sode Sri Vadiraja Matha, and on acceptance of this, all IP rights—including source code, designs, and derivatives—transfer fully to the Matha, with participants waiving moral rights. Non-winning entries retain creator ownership but grant the above license; participants warrant no third-party IP infringement.
- **Prizes and Awards**
The winning app will receive **cash prize** as anugraha prasada from Sode Sri Vadiraja Matha, disbursed via bank transfer within 30 days of winner announcement, subject to KYC verification. No additional prizes are offered; organizers may award honourable

mentions without cash. Winners must transfer all IP rights to Sode Sri Vadiraja Matha upon prize acceptance, including signing a formal assignment agreement.

- **Liability and Waivers**

Participants release organizers, Sode Sri Vadiraja Matha, and sponsors from liability for any claims, damages, or losses arising from participation, including app usage post-event. Organizers are not responsible for technical issues, data loss, or third-party claims. Participants indemnify organizers against IP infringement suits from their submissions.

- **Publicity Rights**

By participating, entrants grant organizers and the Matha rights to use their names, likenesses, and app details for promotional purposes without further compensation. Photos or videos taken during the event may be published on official channels.

- **Submission Requirements**

Apps must be functional mobile prototypes (Android/iOS), compatible with standard devices, and include a demo video under 3 minutes. Source code must be publicly accessible on GitHub post-submission. All external libraries or APIs must be listed with licenses; non-compliance results in disqualification.

- **Confidentiality**

Participants agree not to disclose proprietary Matha information shared during the event. Organizers treat submissions as non-confidential, except as required by law.

5.5 Judging Criteria

Apps are evaluated by a panel of Matha representatives and tech experts on four weighted criteria. Scores are averaged per team; ties are broken by the innovation score. Decisions are final and not subject to appeal.

- Functionality and technical quality (40%)
 - Implementation of the scope
 - Attention to details
 - Quality of the design / UI
 - Quality of Code
- Relevance to Sode Sri Vadiraja Matha content (30%)
- Innovation and user experience (20%)
 - Additional wow factor, ease of use and innovative ideas will get an extra edge
- Presentation quality (10%).

6.0 Technology Stack

- Mobile App (Android + iOS)
 - Language & Framework : React Native (TypeScript)
 - Key libraries
 - Navigation: @react-navigation/bottom-tabs
 - State: Redux Toolkit or Zustand
 - Offline: redux-persist + AsyncStorage
 - Forms: react-hook-form + yup
 - i18n: i18next (English + Kannada)
 - Accessibility: built-in RN a11y props

- Charts: victory-native or react-native-svg-charts
- **Voice Search**
 - react-native-voice
 - Uses device mic - Google Speech-to-Text (Android) / iOS Speech framework
- **Web Client (Public + Admin)**
 - Language & Framework :
 - React.js (TypeScript)
 - Key libraries
 - UI: MUI or Ant Design
 - Charts: Recharts / Chart.js
 - Maps: Google Maps JS SDK
 - Forms: react-hook-form
 - Auth guard: role-based routing
- **Backend Layer (Core System)**
 - Language & Framework :
 - Java 21 + Spring Boot 4.0.2
 - Modules
 - Auth Service (OTP)
 - Content Service (news, history, gallery)
 - Events & Panchanga
 - Seva & Booking
 - Payments
 - Notifications
 - Admin APIs
- **Database**
 - Primary DB: PostgreSQL/MySQL (MySQL acceptable, but PostgreSQL preferred)
 - Search
 - OpenSearch / Elasticsearch
 - Artefacts search
 - Voice-to-text search
 - Publications
- **Authentication & Identity**
 - Login (OTP based) : Firebase Auth (Phone OTP)
- **Media & Content Delivery**
 - Storage
 - AWS S3
 - Images
 - Videos
 - PDFs
 - Audio Pravachana
- **Voice, Maps & External Integrations**
 - Voice Search
 - Google Speech-to-Text API
 - Device native fallback
 - Text normalization (Kannada/English)
- **Payments**
 - Razorpay
 - UPI

- Cards
 - NetBanking
- **Notifications**
 - Push Notifications : Firebase Cloud Messaging (FCM)
 - Event alerts
 - Aradhana reminders
 - Paryaya activation
 - Admin broadcasts
- **Analytics & Monitoring**
 - Firebase Analytics (anonymized)
 - Custom DB metrics
 - Sevas booked
 - Amount collected
 - Active users
 - Monitoring
 - Spring Actuator
 - AWS CloudWatch
 - S3 access logs