VoiceSOP - Complete Project Documentation

Voice-to-Standard Operating Procedure Converter

Version: 1.0
Last Updated: December 25, 2025
Project Type: B2B SaaS
Target Launch: 4 weeks from start

Table of Contents

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1. Executive Summary

Product Name

VoiceSOP (Voice-to-Standard Operating Procedure)

Tagline

"Turn messy voice notes into professional SOPs in 60 seconds"

One-Line Pitch

A web app that converts voice recordings into professionally formatted Standard Operating Procedures with AI —saving business owners 4+ hours per document.

Target Market

- **Primary:** Small agency owners (5-20 employees)
- **Secondary:** Consultants, restaurant managers, startup founders
- **Market Size:** 5M+ small businesses in India alone

Revenue Model

- **Free Tier:** 3 SOPs/month (lead generation)
- **Pro Tier:** ₹499/month (~$6) for unlimited SOPs
- **Enterprise Tier:** ₹9,999+/month for teams

12-Month Goals

Metric	Target
Total Users	700+
Paying Customers	80-100
Monthly Recurring Revenue	₹40,000+
Break-Even	Month 5-6

Why This Will Succeed

1. **Clear Pain Point:** 73% of small businesses have undocumented processes
2. **Time Savings:** 4 hours → 5 minutes per SOP
3. **Low Competition:** No dominant player in "voice-to-SOP" niche
4. **B2B Monetization:** Businesses pay for time-saving tools
5. **Simple Tech Stack:** Leverages existing free APIs (Gemini, Browser Speech API)

2. Project Overview

2.1 Problem Statement

Small business owners, agency founders, and team leaders need documented processes (SOPs) to:

- Train new employees consistently

- Reduce repetitive explanations

- Scale operations without becoming bottlenecks

- Maintain quality standards

Current Challenges:

- Writing SOPs manually takes 4-8 hours per document

- Most businesses have "tribal knowledge" locked in employees' heads

- Hiring consultants costs ₹15,000-₹50,000

- Existing tools (Google Docs, Notion) require extensive manual formatting

2.2 Solution

VoiceSOP converts voice recordings into professionally formatted SOPs automatically:

Input: User records themselves explaining a process (2-15 minutes)
Processing: AI structures the transcript into numbered steps, checklists, warnings
Output: Professional PDF/Markdown document ready to use

2.3 Key Value Propositions

Benefit	Traditional Method	VoiceSOP
Time Investment	4-8 hours writing	5 minutes recording
Cost	₹25,000 consultant fee	₹499/month subscription
Skill Required	Writing & formatting expertise	Just talk naturally
Consistency	Varies by writer	AI ensures uniform structure
Updates	Must rewrite sections	Re-record & regenerate

2.4 Target Audience (Priority Order)

Primary Audience

1. **Digital Marketing/Design Agencies** (5-20 employees)

   - Pain: Constant onboarding of clients and junior staff

   - Budget: ₹5,000-₹15,000/month for tools

   - Decision maker: Founder/Operations Manager

2. **Business Consultants & Coaches**

   - Pain: Need to document their methodologies

   - Budget: ₹3,000-₹10,000/month for productivity tools

   - Decision maker: Self (solo consultants)

3. **Restaurant/Retail Managers**

   - Pain: High staff turnover, repetitive training

   - Budget: ₹2,000-₹8,000/month for operations

   - Decision maker: General Manager/Owner

Secondary Audience

4. **YouTube Tutorial Creators** (10K+ subscribers)

   - Pain: Students want written guides to follow along

   - Budget: ₹1,000-₹5,000/month for creator tools

   - Use case: Convert video scripts to student handouts

5. **Startup Founders** (Seed/Series A stage)

   - Pain: Scaling team, need process documentation

   - Budget: ₹10,000-₹50,000/month for SaaS tools

   - Decision maker: COO/Head of Operations

2.5 Competitive Landscape

Competitor	Strengths	Weaknesses	Price
Manual (Google Docs)	Free, flexible	Time-consuming, no structure	₹0
Trainual	Comprehensive training platform	Expensive, complex	$249/month
Process Street	Workflow automation	No voice input, technical	$100/month
Scribe	Screen recording → guides	Only for software processes	$29/user
ChatGPT	Can format text	No voice input, manual work	₹1,650/month

VoiceSOP's Differentiation:

- ✅ Voice-first interface (no competitors offer this)

- ✅ SOP-specific AI prompts (better output than generic ChatGPT)

- ✅ Price positioned for small businesses (₹499 vs $100-$250)

- ✅ Single-purpose tool (simpler than complex platforms)

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3. Product Requirements Document (PRD)

3.1 Product Vision

Vision Statement:
"VoiceSOP becomes the default tool for small businesses to document their processes—as ubiquitous as Calendly for scheduling or Canva for design."

3-Year North Star:
100,000 businesses worldwide use VoiceSOP to train their teams faster and more consistently.

3.2 Success Metrics

Primary Metrics (Month 12 Targets)

Metric	Target	Measurement
Registered Users	700+	Database count
Paying Customers	80-100	Active subscriptions
Monthly Recurring Revenue (MRR)	₹40,000	Razorpay dashboard
Customer Retention Rate	70%+	(Customers at month end - new) / customers at month start
Average SOPs per User	8+	Database query
Net Promoter Score (NPS)	50+	Quarterly survey

Secondary Metrics

Metric	Target	Purpose
Free-to-Paid Conversion	15%	Measure monetization efficiency
Monthly Churn Rate	<5%	Measure product stickiness
Customer Acquisition Cost (CAC)	<₹1,500	Profitability indicator
Lifetime Value (LTV)	₹6,000+	LTV:CAC ratio should be >3:1
Avg Time to First SOP	<10 min	Onboarding success
Weekly Active Users (WAU)	40% of total	Engagement metric

3.3 Core Features (MVP)

Feature 1: Voice Recording Interface

Priority: P0 (Must-Have)
Owner: Frontend Developer
Estimated Effort: 3-4 days

User Story:
"As a business owner, I want to record myself explaining a process so that I don't have to type everything manually."

Description:
Clean recording interface with start/stop controls, live transcript display, and visual recording indicators.

Functional Requirements:

- User clicks "Record" button to start voice capture

- Browser speech recognition API converts speech to text in real-time

- Live transcript displayed below recording controls

- User can pause and resume recording

- Maximum recording length: 15 minutes

- Visual indicator shows recording is active (animated waveform)

- User can stop recording at any time

Technical Requirements:

- Use `webkitSpeechRecognition` API (Chrome, Safari, Edge)

- Language: English (en-US)

- Fallback message if browser doesn't support speech API

- Auto-save transcript every 30 seconds to prevent data loss

- Works on desktop and mobile browsers

Acceptance Criteria:

☐ Record button changes to "Stop" when active
☐ Animated waveform visible during recording
☐ Transcript updates in real-time (max 2-second delay)
☐ Pause button temporarily stops recording
☐ Resume button continues from pause point
☐ 15-minute warning appears at 14 minutes
☐ Recording auto-stops at 15 minutes
☐ Works on Chrome 90+, Safari 14+, Edge 90+
☐ Mobile-responsive (tested on iOS Safari, Chrome Android)
☐ Error message if microphone permission denied

Edge Cases:

- User denies microphone access → Show friendly error + instructions

- Browser doesn't support speech API → Show manual text input option

- User navigates away during recording → Auto-save transcript

- Poor audio quality → Allow user to re-record sections

Feature 2: AI-Powered SOP Generation

Priority: P0 (Must-Have)
Owner: Backend Developer
Estimated Effort: 5-6 days

User Story:
"As a user, I want AI to structure my rambling voice notes into a professional document so I don't have to format it myself."

Description:
Takes raw voice transcript and uses Google Gemini API to generate a structured SOP with clear sections, numbered steps, checklists, and warnings.

Functional Requirements:

- Process transcript after user stops recording

- Display loading state ("Creating your SOP...")

- Generate SOP with consistent structure:

  - Title (auto-generated from content)

  - Purpose/Overview section

  - Tools/Resources needed

  - Numbered procedural steps

  - Checklists for verification points

  - Common mistakes section

  - Tips for success

- Complete processing in <30 seconds

- Handle transcripts from 100-5,000 words

Technical Requirements:

- API: Google Gemini 2.0 Flash

- Endpoint: generativelanguage.googleapis.com/v1beta/models/gemini-2.0-flash-exp:generateContent

- Temperature: 0.7 (balanced creativity)

- Max output tokens: 2048

- Retry logic: 3 attempts with exponential backoff

- Fallback: OpenAI GPT-4o-mini if Gemini fails

Prompt Template:

You are an expert business process consultant. Convert this voice transcript into a professional Standard Operating Procedure (SOP) document.

INPUT TRANSCRIPT:
{user_transcript}

OUTPUT FORMAT:
[Generate a clear, professional title based on the process described]

Purpose
[1-2 sentences explaining what this SOP achieves and why it matters]

Tools/Resources Needed
- [List any tools, software, or materials mentioned in the transcript]

Procedure

1. **[Step Title]**
   - [Detailed instruction from transcript]
   - [Sub-steps if the user mentioned multiple actions]
   - ✅ Checkpoint: [What success looks like for this step]

2. **[Next Step]**
   - [Continue with clear, actionable instructions]
   - ⚠️ Warning: [If the user mentioned potential mistakes or pitfalls]

[Continue for all major steps identified in the transcript]

Common Mistakes to Avoid
[Extract any warnings, "don't do this," or error scenarios mentioned]

Tips for Success
[Add 2-3 best practices based on insights from the transcript]

FORMATTING RULES:
- Use clear, descriptive headings
- Keep each step concise (1-3 sentences)
- Add checklists (✅) where verification is needed
- Highlight warnings with ⚠️ symbol
- Use professional but friendly tone
- Number all major steps
- Break complex steps into sub-bullets
- Ensure logical flow from start to finish

Acceptance Criteria:

☐ Processing completes in <30 seconds for 90% of requests

☐ Output follows template structure consistently

☐ Title accurately reflects the process

☐ Steps are in logical order

☐ Warnings identified from transcript appear with ⚠️

☐ Checklists added for verification points

☐ Handles technical jargon correctly

☐ Graceful error handling if API fails

☐ Falls back to OpenAI if Gemini unavailable

☐ User can regenerate if output is unsatisfactory

Quality Metrics:

- User satisfaction with first output: >70%

- Regeneration requests: <20%

- Average steps generated: 5-12

Feature 3: PDF & Markdown Export

Priority: P0 (Must-Have)
Owner: Frontend Developer
Estimated Effort: 3-4 days

User Story:
"As a manager, I want to download SOPs as PDFs so I can print them and post them in our workspace."

Description:
Users can export generated SOPs in two formats:

1. **PDF** - Professional formatting for printing/sharing

2. **Markdown** - Plain text for copy-pasting into Notion, wikis, GitHub

Functional Requirements:

PDF Export:

- Single-click download from SOP view page

- Professional layout with:

  - Company logo (if user uploaded one)

  - Clear typography (headings, body text)

- Proper spacing and margins

  - Page numbers

  - Table of contents for long SOPs (5+ pages)

- A4 page size (standard international)

- Filename: {SOP-title}-{date}.pdf

- Download happens instantly (<3 seconds)

Markdown Export:

- Download as .md file

- Preserves all formatting (headers, bullets, bold)

- Compatible with Notion, GitHub, Obsidian

- Filename: {SOP-title}-{date}.md

Technical Requirements:

- PDF Library: jsPDF + jsPDF-AutoTable

- HTML rendering: html2canvas for complex layouts

- Font: Use web-safe fonts (Arial, Helvetica)

- Max file size: 5MB per PDF

- Handle special characters (emojis, bullets)

PDF Template Design:

Client Onboarding Process

Purpose
[Body text in 11pt...]

Tools Needed
• Notion
• Calendly

Procedure

1. Open Client Intake Form
   - Navigate to Notion...
   ✅ Form loads successfully

[Continue with professional spacing]

Acceptance Criteria:

☐ PDF downloads without errors
☐ PDF maintains formatting (bold, bullets, emojis)
☐ PDF is readable on desktop and mobile
☐ Company logo appears if user uploaded one
☐ Page numbers on all pages except first
☐ Markdown preserves structure when pasted
☐ Both formats downloadable from same button
☐ Filename includes SOP title and date
☐ Works on all major browsers
☐ No broken layouts for SOPs with tables/images

Edge Cases:

- Very long SOP (20+ pages) → Add loading indicator

- SOP with special characters → Test UTF-8 encoding

- User has no logo uploaded → Use default VoiceSOP branding

Feature 4: SOP Library (Dashboard)

Priority: P1 (Should-Have for MVP)
Owner: Full-stack Developer
Estimated Effort: 4-5 days

User Story:
"As a returning user, I want to see all my previously created SOPs so I can find and reuse them easily."
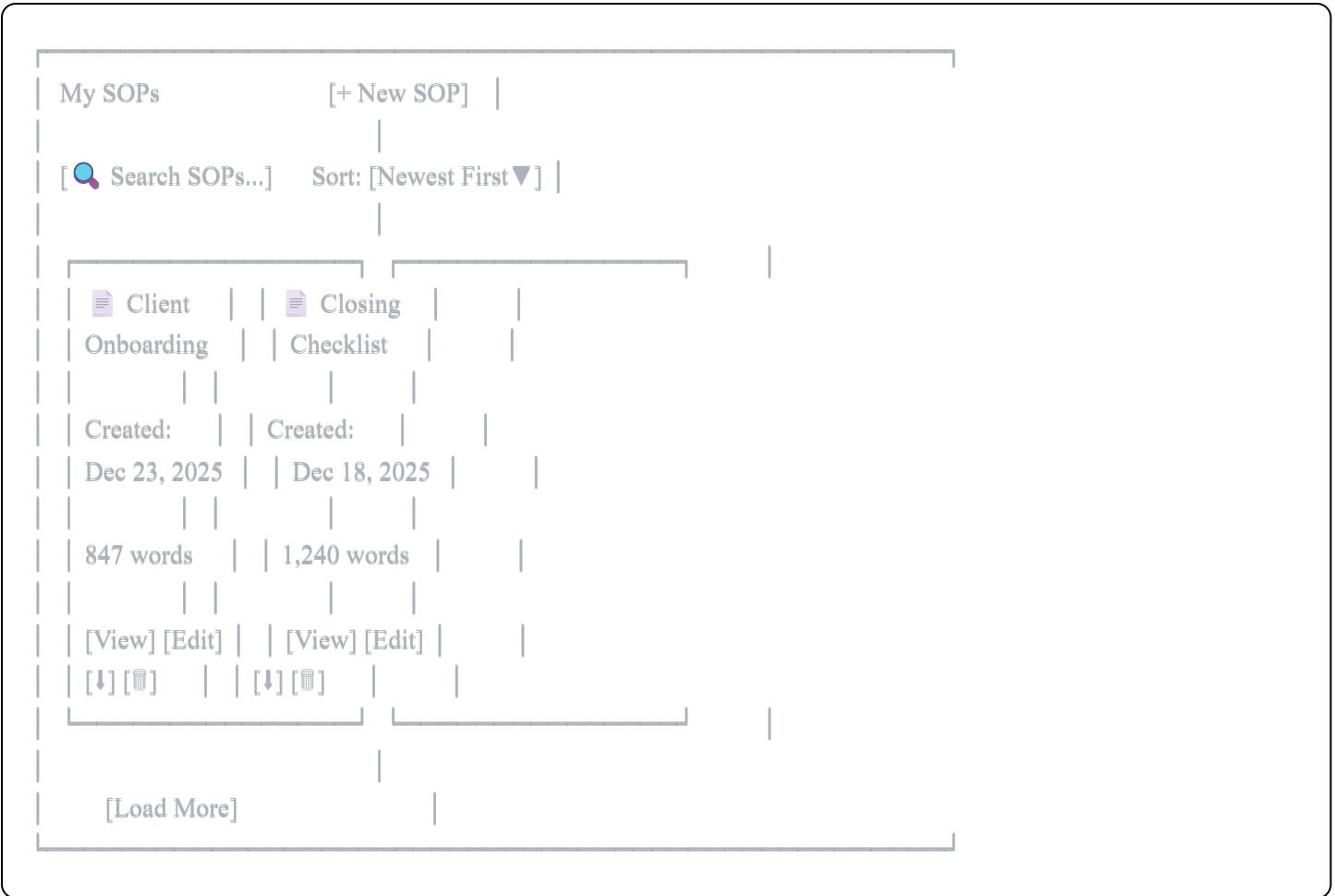
Description:
Dashboard showing grid/list of all user's SOPs with preview, quick actions, and search functionality.

Functional Requirements:

- Display all SOPs created by logged-in user

- Show thumbnail preview for each SOP

- Metadata displayed:

    - Title

    - Date created

    - Date last modified

    - Word count or page count

- Quick actions per SOP:

    - View (opens full SOP)

    - Edit (opens editor)

    - Download (PDF/Markdown)

    - Delete (with confirmation)

- Search bar to filter by title

- Sort options: Newest first, Oldest first, Alphabetical

- Pagination: 20 SOPs per page

- Empty state for new users: "Create your first SOP"

UI Layout:

```
┌─────────────────────────────────────────────────────────────┐
│  ┌──────────────────────────────────────────────────┐       │
│  │  My SOPs              [+ New SOP]  │               │       │
│  │                           │                        │       │
│  │  [🔍 Search SOPs...]   Sort: [Newest First ▼] │    │       │
│  │                           │                        │       │
│  │  ┌──────────────┐   ┌──────────────┐     │         │       │
│  │  │  📄 Client   │   │  📄 Closing  │     │         │       │
│  │  │  Onboarding  │   │  Checklist   │     │         │       │
│  │  │              │   │              │     │         │       │
│  │  │  Created:    │   │  Created:    │     │         │       │
│  │  │  Dec 23, 2025│   │  Dec 18, 2025│     │         │       │
│  │  │              │   │              │     │         │       │
│  │  │  847 words   │   │  1,240 words │     │         │       │
│  │  │              │   │              │     │         │       │
│  │  │  [View] [Edit]│  │  [View] [Edit]│    │         │       │
│  │  │  [↓] [🗑]     │   │  [↓] [🗑]    │     │         │       │
│  │  └──────────────┘   └──────────────┘     │         │       │
│  │                           │                        │       │
│  │       [Load More]         │                        │       │
│  └──────────────────────────────────────────────────┘       │
└─────────────────────────────────────────────────────────────┘
```

Technical Requirements:

- Fetch SOPs from Supabase: SELECT * FROM sops WHERE user_id = {current_user} AND is_deleted = FALSE

- Order by: created_at DESC

- Implement pagination: LIMIT 20 OFFSET {page * 20}

- Search: WHERE title ILIKE '%{search_term}%'

- Real-time updates using Supabase subscriptions

- Cache SOPs in localStorage for faster loading

Acceptance Criteria:

☐ All user SOPs displayed on page load

☐ Clicking SOP card opens full view

☐ Search filters results in real-time

☐ Delete button shows confirmation modal

☐ Deleted SOPs removed from view immediately

☐ Pagination works (load more button or infinite scroll)

☐ Empty state shows helpful message for new users

☐ Loading skeleton shown while fetching data

☐ Responsive design (works on mobile)

Feature 5: Basic Editing

Priority: P1 (Should-Have for MVP)
Owner: Frontend Developer
Estimated Effort: 3-4 days

User Story:
"As a user, I want to make small changes to the AI-generated SOP before exporting it."

Description:
Inline text editing capability allowing users to modify SOP content after AI generation.

Functional Requirements:

- Click any section to edit (title, body text, steps)

- Changes save automatically (debounced after 2 seconds)

- Can add/remove steps manually

- Drag-and-drop to reorder steps

- Undo/Redo functionality (Ctrl+Z / Ctrl+Y)

- "Regenerate with AI" button to start over

- Visual indicator shows when changes are saved

Technical Requirements:

- Use `contentEditable` attribute for inline editing

- Debounce save API calls (2-second delay after last keystroke)

- Store edit history in browser memory (last 20 changes)

- Update database: `UPDATE sops SET formatted_content = {new_content}, updated_at = NOW() WHERE id = {sop_id}`

UI States:

- **View Mode:** Text is static, click to edit

- **Edit Mode:** Text field becomes editable, cursor appears

- **Saving:** "Saving..." indicator appears briefly

- **Saved:** "✓ Saved" indicator fades out after 2 seconds

Acceptance Criteria:

- [ ] Click any text to enter edit mode
- [ ] Changes save automatically after 2 seconds
- [ ] Saved indicator appears after save completes
- [ ] Undo button reverts last change
- [ ] Redo button restores undone change
- [ ] Regenerate button shows confirmation dialog
- [ ] No data loss if user closes tab during edit
- [ ] Works with keyboard shortcuts (Ctrl+Z, Ctrl+Y)
- [ ] Markdown formatting preserved (bold, bullets)

3.4 Future Features (Post-MVP)

Phase 2 (Months 3-6)

Team Collaboration:

- Share SOPs with team members via email invite
- Role-based permissions (Admin, Editor, Viewer)
- Comment threads on specific steps
- Activity log (who edited what, when)

SOP Templates:

- Pre-built templates for common processes
  - "Employee Onboarding"
  - "Client Kickoff Meeting"
  - "Month-End Financial Close"
  - "Social Media Posting Process"
- One-click start from template
- Community template marketplace

Video Upload:

- Upload video file (MP4, MOV)
- Extract audio track automatically
- Convert audio → transcript → SOP
- Use case: Turn training videos into written guides

Multi-Language:

- Support Hindi, Spanish, French transcription

- Translate existing SOPs to other languages

- Language selector in recording interface

Phase 3 (Months 6-12)

Browser Extension:

- Record SOPs while performing tasks in browser

- Automatic screenshot capture at each step

- One-click save to VoiceSOP account

- Use case: Document software workflows

Integrations:

- **Notion:** Export SOPs directly to Notion workspace

- **Google Drive:** Auto-sync PDFs to Drive folder

- **Slack:** Create SOP from Slack message thread

- **Zapier:** Connect to 1,000+ apps

Version Control:

- Track changes over time

- Compare versions side-by-side

- Restore previous versions

- See who made what changes

Analytics Dashboard:

- Most viewed SOPs

- Completion rates (if used for training)

- Time saved metrics

- Team engagement scores

3.5 Non-Functional Requirements

Performance

Metric	Target	Critical?
Page load time	<2 seconds	Yes
Voice-to-text latency	Real-time (<2s delay)	Yes
AI processing time	<30 seconds	Yes
PDF generation	<3 seconds	No (can be 5-10s)
API response time	<500ms	Yes
Database query time	<100ms	Yes

Security

- All data encrypted in transit (HTTPS/TLS)
- User authentication via NextAuth.js
- OAuth 2.0 for Google login
- No recording audio stored permanently (deleted after processing)
- User data isolated (can't access other users' SOPs)
- GDPR compliant (user can delete all data)
- Regular security audits (quarterly)

Scalability

- Support 500 concurrent users during MVP phase
- Database can handle 10,000 SOPs
- CDN for static assets (images, CSS)
- Horizontal scaling capability (add more Vercel instances)
- API rate limits: 100 requests/hour per user

Reliability

- 99.5% uptime target
- Automatic retry on API failures (3 attempts)

- Error messages are user-friendly (no technical jargon)

- Graceful degradation if AI APIs fail

- Automatic backups (daily database snapshots)

Accessibility

- WCAG 2.1 Level AA compliance

- Screen reader compatible

- Keyboard navigation support

- Color contrast ratios meet standards

- Alt text for all images

Browser Compatibility

Browser	Minimum Version	Support Level
Chrome	90+	Full support
Safari	14+	Full support
Firefox	88+	Limited (no speech API)
Edge	90+	Full support
Mobile Safari	iOS 14+	Full support
Chrome Android	90+	Full support

4. Technical Specification

4.1 Tech Stack

Frontend

- **Framework:** Next.js 14 (React 18)

- **Language:** TypeScript

- **Styling:** Tailwind CSS 3.4

- **UI Components:** shadcn/ui

- **State Management:** React Context API (upgrade to Zustand if needed)

- **Speech-to-Text:** Browser Web Speech API (`webkitSpeechRecognition`)
- **Markdown Rendering:** `react-markdown`
- **PDF Generation:** `jsPDF` + `jsPDF-AutoTable`
- **Deployment:** Vercel (Free tier)

Backend

- **Framework:** Next.js API Routes (serverless functions)
- **Runtime:** Node.js 18.x
- **Database:** Supabase (PostgreSQL 15)
- **Authentication:** NextAuth.js v4
- **File Storage:** Supabase Storage
- **ORM:** Prisma (optional, can use Supabase client directly)

AI/APIs

- **Primary AI:** Google Gemini 2.0 Flash
  - Endpoint: `generativelanguage.googleapis.com`
  - Rate Limit: 1,500 requests/day (free tier)
  - Token Limit: 1M tokens/day
- **Fallback AI:** OpenAI GPT-4o-mini (if Gemini quota exceeded)
  - Cost: $0.150 per 1M input tokens

Payments

- **Provider:** Razorpay
- **Transaction Fee:** 2% + ₹0 (domestic cards)
- **Subscription Management:** Razorpay Subscriptions API

Analytics

- **Product Analytics:** PostHog (Free tier: 1M events/month)
- **Web Analytics:** Vercel Analytics (Free)
- **Error Tracking:** Sentry (Free tier: 5K errors/month)

Development Tools

- **Version Control:** GitHub

- **CI/CD:** Vercel (automatic deployments)

- **Code Quality:** ESLint + Prettier

- **Testing:** Jest + React Testing Library (add after MVP)

4.2 System Architecture

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│  │        USER BROWSER            │                           │
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│  │  │  React UI    │◄───►│ Web Speech API │  │                │
│  │  │  (Next.js)   │     │ (Browser Native)│  │               │
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│         │ HTTPS Requests                                       │
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│  │   VERCEL (Next.js Backend)         │                       │
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│  │  │API Routes│◄►│NextAuth.js│◄►│ Session  │ │               │
│  │  │  (Auth)  │  │Management │  │          │ │               │
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│  │Gemini││Supabase││Supabase││Razorpay││PostHog│              │
│  │ API  ││  DB    ││Storage ││  API   ││Analytics│            │
│  │      ││(PostgreSQL)││(Files)││(Payment)││     │            │
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```

Data Flow:

1. User records voice → Browser Speech API converts to text

2. Transcript sent to Next.js API route

3. API route calls Gemini API with structured prompt

4. Gemini returns formatted SOP

5. SOP saved to Supabase database

6. User can generate PDF (client-side with jsPDF)

7. PDF optionally uploaded to Supabase Storage

4.3 API Endpoints

Authentication

```
POST   /api/auth/signup
POST   /api/auth/login
POST   /api/auth/google        (Google OAuth)
POST   /api/auth/logout
GET    /api/auth/session
```

SOP Management

```
POST   /api/sops/create        (Convert transcript → SOP)
GET    /api/sops               (Get all user SOPs, paginated)
GET    /api/sops/:id           (Get single SOP)
PUT    /api/sops/:id           (Update SOP content)
DELETE /api/sops/:id           (Soft delete SOP)
POST   /api/sops/:id/export-pdf (Generate & return PDF)
```

Payments

```
POST   /api/payments/create-order      (Create Razorpay order)
POST   /api/payments/verify-payment    (Verify payment signature)
GET    /api/payments/subscription      (Get subscription status)
POST   /api/payments/cancel-subscription
```

Analytics

```
POST   /api/analytics/track    (Track custom events)
GET    /api/analytics/usage    (Get user usage stats)
```

4.4 Gemini API Integration

Configuration

```javascript
const GEMINI_API_KEY = process.env.GEMINI_API_KEY;
const GEMINI_MODEL = "gemini-2.0-flash-exp";
const GEMINI_ENDPOINT = "https://generativelanguage.googleapis.com/v1beta/models";
```

Request Implementation

```javascript
const GEMINI_API_KEY = process.env.GEMINI_API_KEY;
const GEMINI_MODEL = "gemini-2.0-flash-exp";
const GEMINI_ENDPOINT = "https://generativelanguage.googleapis.com/v1beta/models";
```

```ts
// /api/sops/create.ts
export default async function handler(req, res) {
  if (req.method !== 'POST') {
    return res.status(405).json({ error: 'Method not allowed' });
  }

  const { transcript, userId } = req.body;

  if (!transcript || transcript.length < 50) {
    return res.status(400).json({
      error: 'Transcript too short. Please record at least 30 seconds.'
    });
  }

  try {
    // Call Gemini API
    const sopContent = await generateSOPWithGemini(transcript);

    // Save to database
    const { data, error } = await supabase
      .from('sops')
      .insert({
        user_id: userId,
        transcript: transcript,
        formatted_content: sopContent,
        title: extractTitle(sopContent)
      })
      .select()
      .single();

    if (error) throw error;

    return res.status(200).json({ sop: data });
  } catch (error) {
    console.error('SOP Creation Error:', error);
    return res.status(500).json({
      error: 'Failed to generate SOP. Please try again.'
    });
  }
}

async function generateSOPWithGemini(transcript) {
  const prompt = `You are an expert business process consultant. Convert this voice transcript into a professional Standard Op

INPUT TRANSCRIPT:
${transcript}
```

OUTPUT FORMAT:
[Generate a clear, professional title based on the process described]

Purpose
[1-2 sentences explaining what this SOP achieves and why it matters]

Tools/Resources Needed
- [List any tools, software, or materials mentioned in the transcript]

Procedure

1. **[Step Title]**
   - [Detailed instruction from transcript]
   - [Sub-steps if the user mentioned multiple actions]
   - ✅ Checkpoint: [What success looks like for this step]

2. **[Next Step]**
   - [Continue with clear, actionable instructions]
   - ⚠️ Warning: [If the user mentioned potential mistakes or pitfalls]

[Continue for all major steps identified in the transcript]

Common Mistakes to Avoid
[Extract any warnings, "don't do this," or error scenarios mentioned]

Tips for Success
[Add 2-3 best practices based on insights from the transcript]

FORMATTING RULES:
- Use clear, descriptive headings
- Keep each step concise (1-3 sentences)
- Add checklists (✅) where verification is needed
- Highlight warnings with ⚠️ symbol
- Use professional but friendly tone
- Number all major steps
- Break complex steps into sub-bullets`;

```
  const response = await fetch(
    `${GEMINI_ENDPOINT}/${GEMINI_MODEL}:generateContent?key=${GEMINI_API_KEY}`,
    {
      method: 'POST',
      headers: { 'Content-Type': 'application/json' },
      body: JSON.stringify({
        contents: [{
          parts: [{ text: prompt }]
        }],
```

```javascript
      generationConfig: {
        temperature: 0.7,
        topK: 40,
        topP: 0.95,
        maxOutputTokens: 2048,
      }
    })
  }
);

if (!response.ok) {
  throw new Error(`Gemini API error: ${response.status}`);
}

const data = await response.json();
const generatedText = data.candidates[0].content.parts[0].text;

return generatedText;
}

function extractTitle(sopContent) {
  const titleMatch = sopContent.match(/^#\s+(.+)$/m);
  return titleMatch ? titleMatch[1] : 'Untitled SOP';
}
```

Error Handling & Fallback

```javascript
```

```javascript
async function generateSOPWithAI(transcript) {
  try {
    // Try Gemini first
    return await generateSOPWithGemini(transcript);
  } catch (geminiError) {
    console.error('Gemini failed:', geminiError);

    // Check if it's a rate limit error
    if (geminiError.message.includes('429') || geminiError.message.includes('quota')) {
      // Fallback to OpenAI
      return await generateSOPWithOpenAI(transcript);
    }

    // If it's another error, retry Gemini with exponential backoff
    return await retryWithBackoff(() => generateSOPWithGemini(transcript), 3);
  }
}

async function retryWithBackoff(fn, maxRetries) {
  for (let i = 0; i < maxRetries; i++) {
    try {
      return await fn();
    } catch (error) {
      if (i === maxRetries - 1) throw error;

      // Exponential backoff: 1s, 2s, 4s
      const delay = Math.pow(2, i) * 1000;
      await new Promise(resolve => setTimeout(resolve, delay));
    }
  }
}

async function generateSOPWithOpenAI(transcript) {
  const response = await fetch('https://api.openai.com/v1/chat/completions', {
    method: 'POST',
    headers: {
      'Content-Type': 'application/json',
      'Authorization': `Bearer ${process.env.OPENAI_API_KEY}`
    },
    body: JSON.stringify({
      model: 'gpt-4o-mini',
      messages: [
        { role: 'system', content: 'You are an expert at creating Standard Operating Procedures.' },
        { role: 'user', content: `Convert this transcript into a professional SOP:\n\n${transcript}` }
      ],
      temperature: 0.7,
```

```javascript
      max_tokens: 2000
    })
  });

  const data = await response.json();
  return data.choices[0].message.content;
}
```

Rate Limit Management

```javascript
javascript
// Simple in-memory rate limiter
const userRequestCounts = new Map();

function checkRateLimit(userId) {
  const now = Date.now();
  const userRequests = userRequestCounts.get(userId) || [];

  // Filter requests from last hour
  const recentRequests = userRequests.filter(time => now - time < 3600000);

  if (recentRequests.length >= 100) {
    return { allowed: false, resetTime: recentRequests[0] + 3600000 };
  }

  recentRequests.push(now);
  userRequestCounts.set(userId, recentRequests);

  return { allowed: true };
}
```

---

5. User Stories & Use Cases

5.1 User Persona 1: Sarah - Digital Marketing Agency Owner

Demographics:

- Age: 32
- Role: Founder & CEO
- Company: 12-person digital marketing agency
- Location: Bangalore, India
- Tech Savviness: High

Background: Sarah started her agency 4 years ago. She's constantly onboarding new clients and hiring junior team members. Every week, she spends 5-10 hours explaining the same processes: how to onboard clients, how to create social media calendars, how to run client kickoff meetings.

Pain Points:

- "I feel like a broken record explaining the same things"

- "New hires ask the same questions for weeks"

- "I can't take vacations because everything is in my head"

- "We lose efficiency every time someone leaves"

Goals:

- Document all key processes so team is self-sufficient

- Reduce onboarding time from 3 weeks to 1 week

- Free up 5+ hours per week for strategic work

- Create consistent client experience regardless of which team member handles it

---

User Journey: Creating First SOP

Scenario: Sarah wants to document the "Client Onboarding Process"

Step 1: Discovery

- Sarah sees a LinkedIn post about VoiceSOP

- Clicks through to landing page

- Watches 30-second demo video

- Thinks: "This could save me hours"

- Clicks "Start Creating Free"

Step 2: Sign Up

- Lands on signup page

- Sees "Sign up with Google" button

- Clicks it (no need to remember another password)

- Grants permissions

- Redirected to dashboard in 5 seconds

Step 3: First SOP Creation

- Dashboard shows "Create your first SOP" empty state

- Clicks "+ New SOP" button

- Sees recording interface with helpful tips

- Clicks "Start Recording"

- Speaks for 8 minutes explaining:

    - How to gather client requirements

    - Which Notion templates to use

    - Questions to ask in discovery call

    - How to set up project tracking

    - Common mistakes to avoid

Step 4: AI Processing

- Clicks "Stop & Generate"

- Sees "Creating your SOP..." loading screen (18 seconds)

- Generated SOP appears with:

    - Title: "Client Onboarding Process"

    - 12 numbered steps

    - Checkpoints for each major phase

    - Warning about scope creep

    - Tips section

Step 5: Review & Edit

- Sarah reads through the SOP

- Makes 2 small edits:

    - Changes "discovery call" to "kickoff meeting"

    - Adds a link to the Notion template

- Sees "✓ Saved" indicator

Step 6: Export & Share

- Clicks "Download as PDF"

- PDF downloads instantly

- Opens company Slack

- Posts in #team-resources channel: "Finally documented our onboarding process! No more asking me how to start with new clients 🎉"

- Pins the message

Outcome:

- Time invested: 10 minutes (vs 4 hours to write manually)

- Team members reference it 23 times in first week

- New account manager asks 60% fewer questions

- Sarah decides to upgrade to Pro to document more processes

5.2 User Persona 2: Raj - Restaurant Manager

Demographics:

- Age: 28

- Role: General Manager

- Company: Quick-service restaurant (single location)

- Location: Pune, India

- Tech Savviness: Medium

Background: Raj manages a busy restaurant with 8 servers and 4 kitchen staff. Staff turnover is high (servers stay 3-6 months on average). Training new servers takes 2 weeks, during which Raj must stay late every night to supervise closing procedures.

Pain Points:

- "I have to personally train every new server"

- "Staff makes the same mistakes repeatedly"

- "I can't trust anyone to close without me there"

- "No written procedures for anything"

Goals:

- Train new servers faster (target: 5 days instead of 14)

- Trust staff to handle closing without supervision

- Reduce cash register errors

- Stop working 70-hour weeks

User Journey: Creating "Closing Procedures" SOP

Scenario: Raj wants new servers to close independently

Step 1: Mobile Recording

- At end of shift, Raj pulls out his phone

- Opens VoiceSOP mobile web app

- Clicks "New SOP"

- Walks through the closing process while recording:

  - How to count the cash drawer

  - Reconciling card payments in POS system

  - Filling out the daily report

  - Cleaning checklist

  - Securing the safe

  - Locking up

Step 2: Quick Review

- Recording took 6 minutes

- SOP generated with 15 clear steps

- Raj adds one note: "Count bills twice"

- Downloads as PDF

Step 3: Implementation

- Prints 3 copies of the PDF

- Posts one near cash register

- Posts one near kitchen

- Puts one in training binder

- Shows new server on Day 1

Step 4: Real-World Test

- Day 3: New server closes alone using the SOP

- Calls Raj with one question (used to be 10+)

- Closing completed correctly

- Raj goes home at 9 PM instead of midnight

Outcome:

- Time saved per week: 8 hours

- New servers close independently by Day 5

- Cash register errors decreased 70%

- Raj's work-life balance improved dramatically

- Creates 4 more SOPs (opening, food prep, customer complaints, inventory)

5.3 User Persona 3: Priya - YouTube Course Creator

Demographics:

- Age: 26

- Role: Content Creator & Educator

- Company: Solo creator (150K subscribers)

- Location: Delhi, India

- Tech Savviness: Very High

Background: Priya teaches web development on YouTube. She sells a ₹2,999 course with 40 video lessons. Students constantly ask for "written notes" to follow along without rewatching videos. Creating written guides manually takes 4-6 hours per video.

Pain Points:

- "Students want text guides but I don't have time to write them"

- "They keep rewatching videos to find specific steps"

- "Written notes would reduce support questions"

- "I'm leaving money on the table by not providing this"

Goals:

- Provide written guides with every course module

- Reduce student support questions by 50%

- Improve course completion rate

- Increase course value perception

User Journey: Converting Video Script to Student Guide

Scenario: Priya wants to create a written guide for her "Deploy Next.js to Vercel" tutorial

Step 1: Script Upload

- Priya has already written a script for her video

- Opens VoiceSOP

- Uses "Manual Text Input" option

- Pastes her 1,200-word script

Step 2: AI Processing

- AI generates structured guide with:

    - Prerequisites section (Node.js, Git, Vercel account)

    - 8 numbered steps with code snippets

    - Troubleshooting section

    - Links to documentation

- Takes 15 seconds

Step 3: Enhancement

- Priya adds:

    - Screenshots from her video

    - Code syntax highlighting

    - "Try it yourself" practice exercises

- Exports as Markdown

Step 4: Course Integration

- Uploads Markdown to course platform

- Students can now download guide alongside video

- Comments start appearing: "The written guide is amazing!"

Outcome:

- Time saved: 4 hours per video

- Student satisfaction increased (reflected in reviews)

- Support questions decreased 40%

- Course completion rate increased 25%

- Creates guides for all 40 lessons in 2 weeks

- Raises course price from ₹2,999 to ₹3,999 due to added value

---

6. MVP Feature List

Must-Have Features (P0) - Week 1-2

Feature	Description	Effort	Status
Landing Page	Marketing site with demo video, pricing, CTA	1 day	⏳
User Authentication	Sign up, login, Google OAuth	1 day	⏳
Voice Recording	Record audio, live transcript	2 days	⏳
AI SOP Generation	Gemini API integration	2 days	⏳
SOP Display	View formatted SOP	1 day	⏳
PDF Export	Download as professional PDF	2 days	⏳
Basic Database	Store users and SOPs	1 day	⏳

Total Effort: 10 days

Should-Have Features (P1) - Week 3-4

Feature	Description	Effort	Status
Dashboard	View all SOPs, search, delete	2 days	⏳
Inline Editing	Edit SOP text after generation	2 days	⏳
Markdown Export	Download as .md file	1 day	⏳
Razorpay Integration	Payment processing	2 days	⏳
Free Tier Limits	3 SOPs/month restriction	1 day	⏳

Feature	Description	Effort	Status
Email Notifications	Welcome email, SOP created	1 day	⏳

Total Effort: 9 days

Nice-to-Have Features (P2) - Post-MVP

Feature	Description	Priority	Phase
Manual Text Input	Type instead of record	Low	Phase 2
SOP Templates	Pre-built starting templates	Medium	Phase 2
Logo Upload	Custom branding on exports	Low	Phase 2
Dark Mode	UI theme toggle	Low	Phase 2
Duplicate SOP	Copy existing as template	Medium	Phase 2
Share Link	Public URL for SOPs	Medium	Phase 3
Team Workspace	Collaboration features	High	Phase 3
Notion Integration	Direct export to Notion	High	Phase 3
Video Upload	Extract audio from video	Medium	Phase 3

Won't Have (Out of Scope)

- ❌ Real-time collaboration (Google Docs style)
- ❌ Mobile native apps (iOS/Android)
- ❌ Offline mode
- ❌ Custom AI training
- ❌ White-labeling (until enterprise tier)
- ❌ Process automation (workflow triggers)
- ❌ Advanced analytics/reporting

7. UI/UX Wireframes

7.1 Landing Page (/)

```
┌─────────────────────────────────────────────────────────────┐
│  ┌───────────────────────────────────────────────────────┐  │
│  │ [VoiceSOP Logo]    Features  Pricing  Blog  [Login]  │  │
│  │                         [Sign Up] │                    │  │
│  ├───────────────────────────────────────────────────────┤  │
│  │                              │                         │  │
│  │        HERO SECTION          │                         │  │
│  │                              │                         │  │
│  │   Turn Voice Notes into Professional SOPs   │         │  │
│  │           in 60 Seconds             │                 │  │
│  │                              │                         │  │
│  │  [Record yourself explaining a process, get a formatted │ │
│  │   training manual. No writing needed.]        │       │  │
│  │                              │                         │  │
│  │      [ 🎤 Start Creating Free]    │                   │  │
│  │                              │                         │  │
│  │         ▼                    │                         │  │
│  │    [Watch 30-Second Demo Video]     │                 │  │
│  │    [Embedded video player]          │                 │  │
│  │                              │                         │  │
│  ├───────────────────────────────────────────────────────┤  │
│  │                              │                         │  │
│  │       SOCIAL PROOF SECTION          │                 │  │
│  │                              │                         │  │
│  │  "We created 15 SOPs in one afternoon. Game-changer │   │  │
│  │   for our agency onboarding."        │                │  │
│  │   — Sarah K., Marketing Agency Owner    │             │  │
│  │                              │                         │  │
│  │    ⭐⭐⭐⭐⭐  4.8/5 from 127 businesses    │          │  │
│  │                              │                         │  │
│  │  [Logo] [Logo] [Logo] [Logo] [Logo]     │             │  │
│  │  Used by agencies, restaurants, and consultants   │   │  │
│  │                              │                         │  │
│  ├───────────────────────────────────────────────────────┤  │
│  │                              │                         │  │
│  │       FEATURES SECTION       │                         │  │
│  │   How VoiceSOP Saves You 4 Hours Per SOP    │         │  │
│  │                              │                         │  │
│  │  ┌──────────┬────────────┬───────────┐          │     │  │
│  │  │ 🎤 Just  │ 🤖 AI Does │ 📄 Export │      │        │  │
│  │  │  Talk    │  the Work  │  Ready    │      │        │  │
│  │  │          │            │           │      │        │  │
│  │  │ No typing│ Structures,│ Download as │    │        │  │
```

needed.	formats, &	PDF or		
Record your	adds	Markdown in		
process in	checklists	one click		
plain	automatically			
English				

HOW IT WORKS (3 STEPS)

1. Record → 2. AI Formats → 3. Download
[Animated diagram showing the flow]

PRICING SECTION

Simple, Transparent Pricing
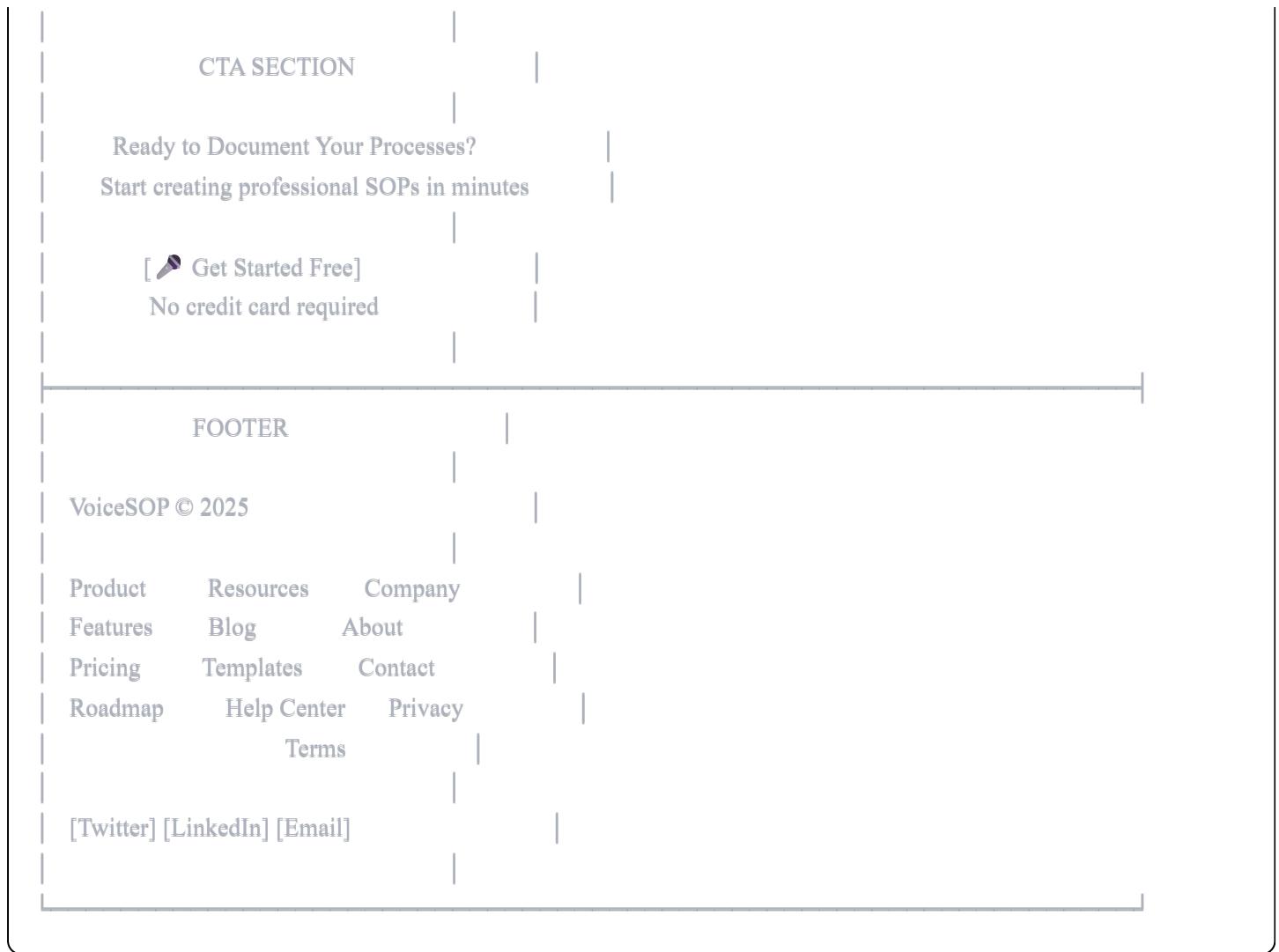
Free	Pro
₹0/month	₹499/month
• 3 SOPs/month	• Unlimited
• PDF export	• All exports
• Basic editing	• Logo upload
• Email support	• Priority AI
	• Fast support
[Try Free]	[Start 7-Day Free Trial]

[Compare all features →]
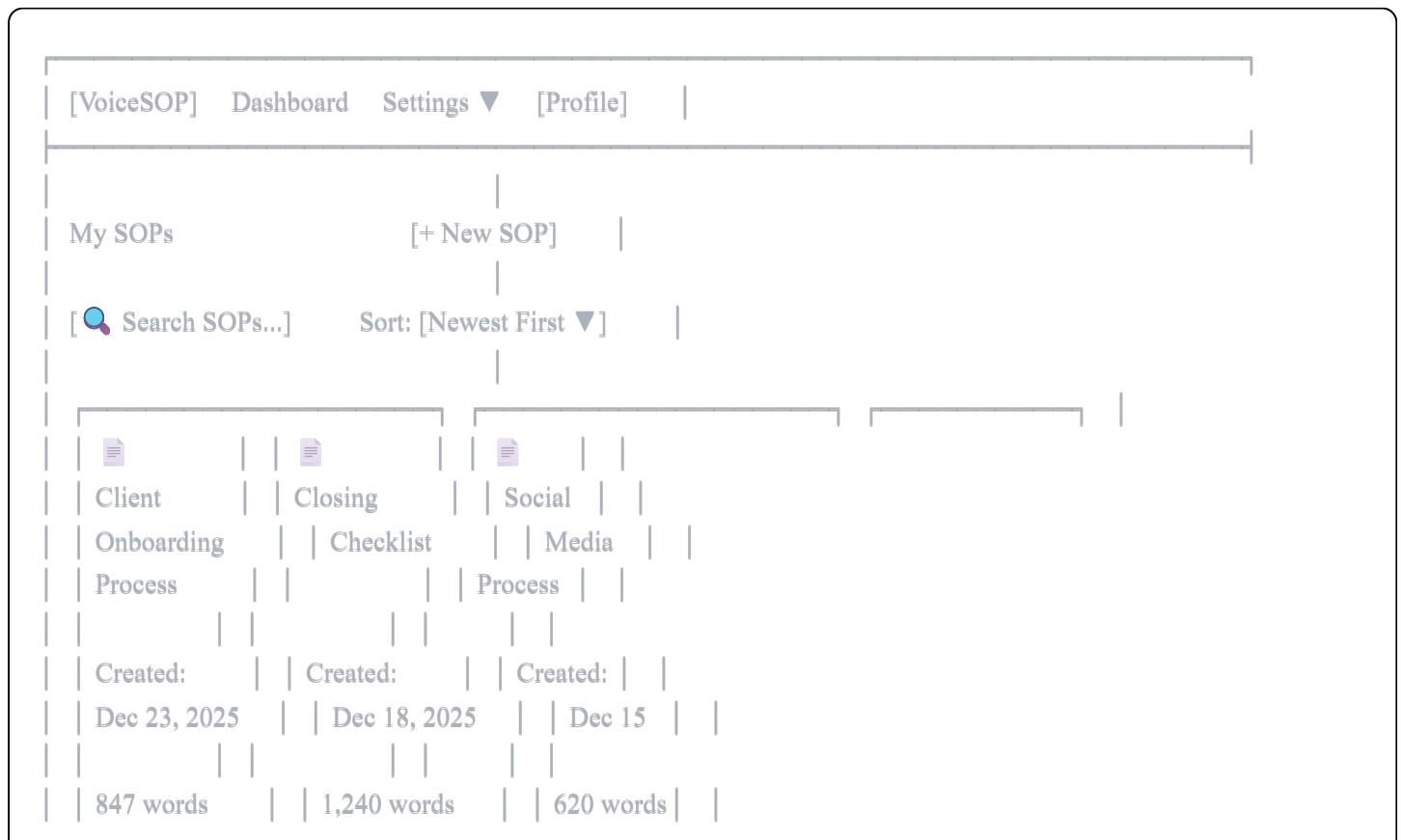
USE CASES SECTION

Perfect For These Teams

🏢 Agencies — Document client onboarding & delivery processes

🍽️ Restaurants — Train staff faster with closing procedures

👨‍💼 Consultants — Package your expertise into SOPs for clients

```
CTA SECTION

       Ready to Document Your Processes?
    Start creating professional SOPs in minutes


         [ 🎤 Get Started Free]
           No credit card required
```

```
FOOTER

VoiceSOP © 2025

Product      Resources      Company
Features      Blog          About
Pricing       Templates     Contact
Roadmap       Help Center    Privacy
                    Terms


[Twitter] [LinkedIn] [Email]
```

7.2 Dashboard (/dashboard)

```
[VoiceSOP]    Dashboard    Settings ▼    [Profile]


My SOPs                    [+ New SOP]


[ 🔍 Search SOPs...]      Sort: [Newest First ▼]


  ┌──────────────┐  ┌──────────────┐  ┌──────────┐
  │   📄         │  │   📄         │  │   📄     │
  │  Client      │  │  Closing     │  │  Social  │
  │  Onboarding  │  │  Checklist   │  │  Media   │
  │  Process     │  │              │  │  Process │
  │              │  │              │  │          │
  │  Created:    │  │  Created:    │  │  Created:│
  │  Dec 23, 2025│  │  Dec 18, 2025│  │  Dec 15  │
  │              │  │              │  │          │
  │  847 words   │  │  1,240 words │  │  620 words│
```

```
|  | 3 pages    |  | 4 pages    |  | 2 pages  |  |
|  |            |  |            |  |          |  |
|  | [View] [Edit]  |  | [View] [Edit]  |  | [View]  |  |
|  | [↓ Download]   |  | [↓ Download]   |  | [↓] [🗑]  |  |
|  | [🗑 Delete]   |  | [🗑 Delete]   |  |          |  |
|  |_____|  |_____|  |_____|  |
|                                                          |
|   _____    _____           |
|  | 📄          |  | 📄          |         |            |
|  | [More SOPs...]  |  | [More SOPs...]  |         |        |
|  |_____|  |_____|         |      |
|                                                          |
|              [Load More SOPs]              |             |
|                                                          |
|_____|
|                                                          |
|  Usage: 2/3 SOPs this month (Free Plan)     |            |
|  [Upgrade to Pro for Unlimited SOPs →]       |           |
|                                                          |
|_____|


EMPTY STATE (for new users):
 _____
|                          |                               |
|            📄            |                               |
|                          |                               |
|            No SOPs yet            |                       |
|      Create your first SOP in 5 minutes        |         |
|                          |                               |
|         [+ Create First SOP]              |              |
|                          |                               |
|      Or watch our quick tutorial →        |              |
|                          |                               |
|_____|
```

7.3 Recording Interface (⟨/create⟩)

STEP 1: Initial State

Create New SOP

🎤

Click "Record" and explain your process
out loud. Speak naturally—we'll
handle the formatting.

💡 Quick Tips:
• Speak for 2-10 minutes
• Mention steps in order
• Point out common mistakes
• Explain the "why" behind steps

[🔴 Start Recording]

Or [Type manually instead]

STEP 2: Recording Active

[← Cancel]   Recording SOP

🔴 Recording... 02:34 / 15:00

(Animated audio waveform)

Live Transcript:

"First, you need to open the client intake
form in Notion. Make sure you check the project
type field because that determines which
template we use. Then, ask the client about
their timeline and budget constraints..."

[Transcript continues scrolling...]

[❙❙ Pause]   [■ Stop & Generate]

STEP 3: AI Processing

```
+---------------------------------------------------+
|          Creating Your SOP...          |          |
+---------------------------------------------------+
|                                    |              |
|                                    |              |
|                  ⧗                 |              |
|           (Animated spinner)       |              |
|                                    |              |
|     Our AI is structuring your SOP...    |        |
|                                    |              |
|                                    |              |
|      ☑ Transcript captured (847 words)   |        |
|      ☑ Identifying key steps       |              |
|      ⧗ Formatting document...      |              |
|      ⧗ Adding checklists and warnings    |        |
|                                    |              |
|                                    |              |
|     This usually takes 15-20 seconds     |        |
|                                    |              |
|                                    |              |
+---------------------------------------------------+
```

7.4 SOP Editor (`/sops/:id`)

```
+---------------------------------------------------+
| [← Dashboard]  Client Onboarding Process  [Download ▼] |
+---------------------------------------------------+
|                                    |              |
| [Edit Title: Client Onboarding Process]    |      |
|                                    |              |
|  +----------------------------------------+ |     |
|  | |                              | |            |
|  | | # Client Onboarding Process        | |      |
|  | |                              | |            |
|  | | ## Purpose                     | |          |
|  | | This SOP guides account managers through the  | |  |
|  | | complete client onboarding workflow, ensuring | |  |
|  | | consistent quality and reducing setup time from | |  |
|  | | 3 days to 1 day.               | |          |
|  | |                              | |            |
|  | | ## Tools/Resources Needed          | |      |
|  | | - Notion (Client Intake Template)      | |  |
|  | | - Calendly (for scheduling kickoff)    | |  |
|  | | - Google Drive (contract storage)      | |  |
```

- Slack (#new-clients channel)

Procedure

1. **Open Client Intake Form**
   - Navigate to Notion workspace
   - Click "New Client" template
   - Duplicate the template with client name
   ✅ Checkpoint: Form opens with all sections

2. **Verify Project Type**
   - Check "Project Type" dropdown
   - Options: Web Dev, SEO, Social Media, Full Stack
   - Select the appropriate type
   ⚠️ Warning: Wrong type loads wrong workflow

3. **Schedule Kickoff Meeting**
   - Send Calendly link to client
   - Ensure it's scheduled within 48 hours
   - Add to team calendar
   ✅ Meeting confirmed in both calendars

[... content continues ...]

Common Mistakes to Avoid
• Not verifying project type before starting
• Forgetting to add client to Slack channel
• Sending contract without legal review

Tips for Success
• Use the pre-filled questions in the template
• Always confirm client has received all docs
• Set calendar reminder for 24h before kickoff

[💾 Changes Saved] [🔄 Regenerate with AI]

DOWNLOAD DROPDOWN:

📄 Download as PDF
📝 Download as MD
📋 Copy to Clipboard

8. API Integration Guide

8.1 Database Setup (Supabase)

Step 1: Create Supabase Project

```bash
# Visit https://supabase.com
# Click "New Project"
# Name: voicesop-production
# Region: Asia Southeast (Singapore) - closest to India
# Database Password: [Generate strong password]
```

Step 2: Create Tables

```sql
```

```sql
-- Users table
CREATE TABLE users (
  id UUID PRIMARY KEY DEFAULT uuid_generate_v4(),
  email VARCHAR(255) UNIQUE NOT NULL,
  name VARCHAR(255),
  created_at TIMESTAMP DEFAULT NOW(),
  subscription_tier VARCHAR(50) DEFAULT 'free',
  subscription_expires_at TIMESTAMP,
  sops_created_count INT DEFAULT 0,
  razorpay_customer_id VARCHAR(255),
  updated_at TIMESTAMP DEFAULT NOW()
);

-- Index for faster lookups
CREATE INDEX idx_users_email ON users(email);
CREATE INDEX idx_users_subscription ON users(subscription_tier);

-- SOPs table
CREATE TABLE sops (
  id UUID PRIMARY KEY DEFAULT uuid_generate_v4(),
  user_id UUID REFERENCES users(id) ON DELETE CASCADE,
  title VARCHAR(500) NOT NULL,
  transcript TEXT,
  formatted_content TEXT NOT NULL,
  pdf_url VARCHAR(1000),
  word_count INT,
  created_at TIMESTAMP DEFAULT NOW(),
  updated_at TIMESTAMP DEFAULT NOW(),
  is_deleted BOOLEAN DEFAULT FALSE
);

-- Indexes for performance
CREATE INDEX idx_sops_user_id ON sops(user_id);
CREATE INDEX idx_sops_created_at ON sops(created_at DESC);
CREATE INDEX idx_sops_user_created ON sops(user_id, created_at DESC);

-- API usage tracking
CREATE TABLE api_usage (
  id UUID PRIMARY KEY DEFAULT uuid_generate_v4(),
  user_id UUID REFERENCES users(id),
  api_provider VARCHAR(50),
  tokens_used INT,
  cost_usd DECIMAL(10, 6),
  created_at TIMESTAMP DEFAULT NOW()
);
```

```sql
CREATE INDEX idx_api_usage_user ON api_usage(user_id);
CREATE INDEX idx_api_usage_date ON api_usage(created_at);

-- Payments table
CREATE TABLE payments (
  id UUID PRIMARY KEY DEFAULT uuid_generate_v4(),
  user_id UUID REFERENCES users(id),
  razorpay_order_id VARCHAR(255),
  razorpay_payment_id VARCHAR(255),
  amount INT NOT NULL,
  currency VARCHAR(10) DEFAULT 'INR',
  status VARCHAR(50),
  subscription_tier VARCHAR(50),
  created_at TIMESTAMP DEFAULT NOW()
);

CREATE INDEX idx_payments_user ON payments(user_id);
```

Step 3: Enable Row Level Security (RLS)

```sql
sql

-- Enable RLS on all tables
ALTER TABLE sops ENABLE ROW LEVEL SECURITY;
ALTER TABLE users ENABLE ROW LEVEL SECURITY;

-- Users can only see their own SOPs
CREATE POLICY "Users can view own SOPs"
  ON sops FOR SELECT
  USING (auth.uid() = user_id);

-- Users can create their own SOPs
CREATE POLICY "Users can create own SOPs"
  ON sops FOR INSERT
  WITH CHECK (auth.uid() = user_id);

-- Users can update their own SOPs
CREATE POLICY "Users can update own SOPs"
  ON sops FOR UPDATE
  USING (auth.uid() = user_id);

-- Users can delete their own SOPs
CREATE POLICY "Users can delete own SOPs"
  ON sops FOR DELETE
  USING (auth.uid() = user_id);
```

8.2 Environment Variables

Create `.env.local` file:

```bash
# Supabase
NEXT_PUBLIC_SUPABASE_URL=https://your-project.supabase.co
NEXT_PUBLIC_SUPABASE_ANON_KEY=your-anon-key
SUPABASE_SERVICE_ROLE_KEY=your-service-role-key

# NextAuth
NEXTAUTH_URL=http://localhost:3000
NEXTAUTH_SECRET=generate-with-openssl-rand-base64-32

# Google OAuth
GOOGLE_CLIENT_ID=your-google-client-id
GOOGLE_CLIENT_SECRET=your-google-client-secret

# Gemini API
GEMINI_API_KEY=your-gemini-api-key

# OpenAI (Fallback)
OPENAI_API_KEY=your-openai-api-key

# Razorpay
RAZORPAY_KEY_ID=your-razorpay-key-id
RAZORPAY_KEY_SECRET=your-razorpay-secret

# PostHog Analytics
NEXT_PUBLIC_POSTHOG_KEY=your-posthog-key
NEXT_PUBLIC_POSTHOG_HOST=https://app.posthog.com
```

8.3 NextAuth Configuration

File: `/pages/api/auth/[...nextauth].ts`

```typescript


```

```javascript
import NextAuth from "next-auth";
import GoogleProvider from "next-auth/providers/google";
import { createClient } from "@supabase/supabase-js";

const supabase = createClient(
  process.env.NEXT_PUBLIC_SUPABASE_URL!,
  process.env.SUPABASE_SERVICE_ROLE_KEY!
);

export default NextAuth({
  providers: [
    GoogleProvider({
      clientId: process.env.GOOGLE_CLIENT_ID!,
      clientSecret: process.env.GOOGLE_CLIENT_SECRET!,
    }),
  ],
  callbacks: {
    async signIn({ user, account }) {
      // Create user in database if doesn't exist
      const { data: existingUser } = await supabase
        .from("users")
        .select("id")
        .eq("email", user.email)
        .single();

      if (!existingUser) {
        await supabase.from("users").insert({
          email: user.email,
          name: user.name,
        });
      }

      return true;
    },
    async session({ session, token }) {
      // Add user ID to session
      if (session.user) {
        const { data } = await supabase
          .from("users")
          .select("id, subscription_tier")
          .eq("email", session.user.email)
          .single();

        session.user.id = data?.id;
        session.user.subscriptionTier = data?.subscription_tier;
      }
```

```typescript
      return session;
    },
  },
  pages: {
    signIn: "/auth/signin",
    error: "/auth/error",
  },
});
```

8.4 Razorpay Integration

File: `/pages/api/payments/create-order.ts`

```typescript

```

```ts
import Razorpay from "razorpay";
import { NextApiRequest, NextApiResponse } from "next";
import { getSession } from "next-auth/react";

const razorpay = new Razorpay({
  key_id: process.env.RAZORPAY_KEY_ID!,
  key_secret: process.env.RAZORPAY_KEY_SECRET!,
});

export default async function handler(
  req: NextApiRequest,
  res: NextApiResponse
) {
  if (req.method !== "POST") {
    return res.status(405).json({ error: "Method not allowed" });
  }

  const session = await getSession({ req });
  if (!session) {
    return res.status(401).json({ error: "Unauthorized" });
  }

  try {
    const { plan } = req.body; // 'monthly' or 'annual'

    const amount = plan === "annual" ? 4990 : 499;

    const order = await razorpay.orders.create({
      amount: amount * 100, // Convert to paise
      currency: "INR",
      receipt: `order_${Date.now()}`,
      notes: {
        userId: session.user.id,
        plan: plan,
      },
    });

    return res.status(200).json({ orderId: order.id, amount });
  } catch (error) {
    console.error("Razorpay order creation failed:", error);
    return res.status(500).json({ error: "Failed to create order" });
  }
}
```

File: `/pages/api/payments/verify-payment.ts`

typescript

typescript

```typescript
import crypto from "crypto";
import { NextApiRequest, NextApiResponse } from "next";
import { createClient } from "@supabase/supabase-js";

const supabase = createClient(
  process.env.NEXT_PUBLIC_SUPABASE_URL!,
  process.env.SUPABASE_SERVICE_ROLE_KEY!
);

export default async function handler(
  req: NextApiRequest,
  res: NextApiResponse
) {
  if (req.method !== "POST") {
    return res.status(405).json({ error: "Method not allowed" });
  }

  try {
    const {
      razorpay_order_id,
      razorpay_payment_id,
      razorpay_signature,
      userId,
      plan,
    } = req.body;

    // Verify signature
    const body = razorpay_order_id + "|" + razorpay_payment_id;
    const expectedSignature = crypto
      .createHmac("sha256", process.env.RAZORPAY_KEY_SECRET!)
      .update(body.toString())
      .digest("hex");

    if (expectedSignature !== razorpay_signature) {
      return res.status(400).json({ error: "Invalid signature" });
    }

    // Payment verified - update user subscription
    const expiresAt =
      plan === "annual"
        ? new Date(Date.now() + 365 * 24 * 60 * 60 * 1000)
        : new Date(Date.now() + 30 * 24 * 60 * 60 * 1000);

    await supabase
      .from("users")
      .update({
```
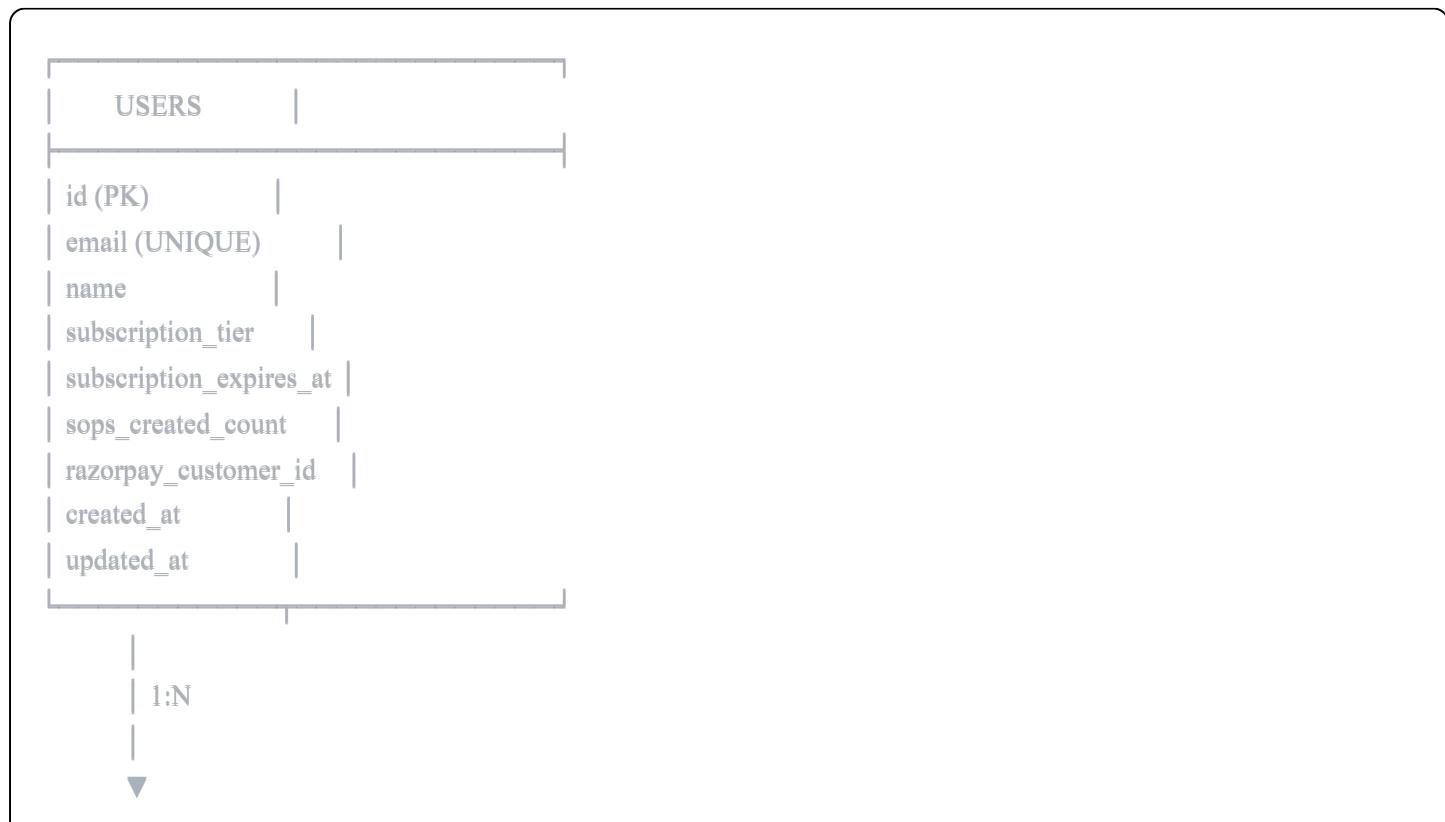
```javascript
        subscription_tier: "pro",
        subscription_expires_at: expiresAt.toISOString(),
      })
      .eq("id", userId);

    // Record payment
    await supabase.from("payments").insert({
      user_id: userId,
      razorpay_order_id,
      razorpay_payment_id,
      amount: plan === "annual" ? 4990 : 499,
      currency: "INR",
      status: "success",
      subscription_tier: "pro",
    });

    return res.status(200).json({ success: true });
  } catch (error) {
    console.error("Payment verification failed:", error);
    return res.status(500).json({ error: "Verification failed" });
  }
}
```
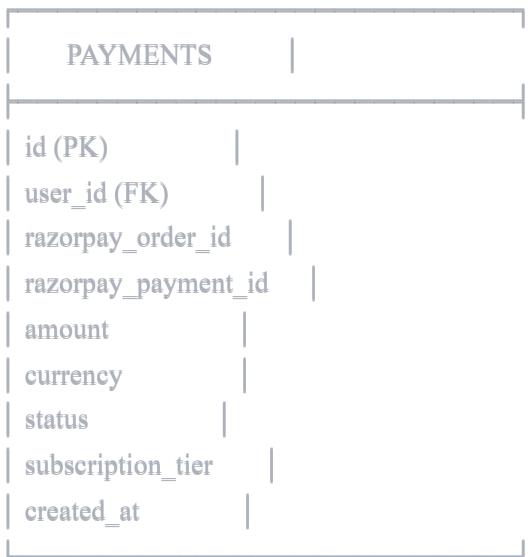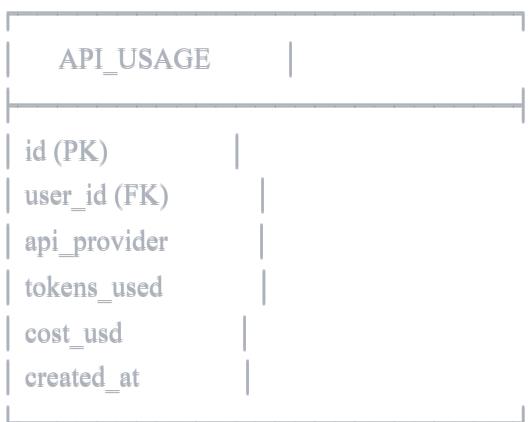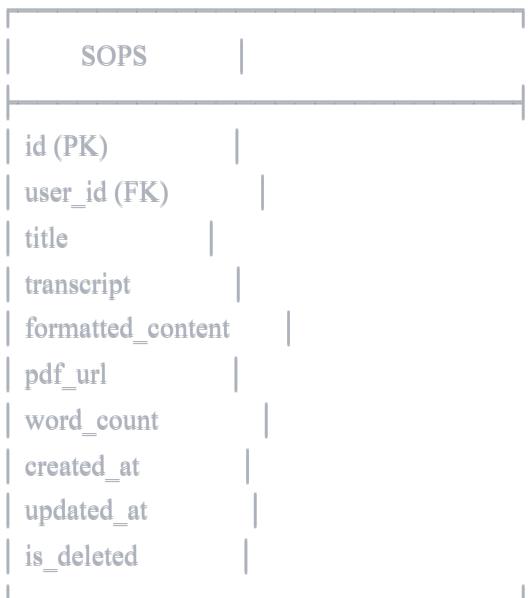
---

9. Database Schema

9.1 Entity Relationship Diagram

```
┌─────────────────────────┐
│        USERS            │
├─────────────────────────┤
│ id (PK)            │
│ email (UNIQUE)       │
│ name               │
│ subscription_tier     │
│ subscription_expires_at │
│ sops_created_count    │
│ razorpay_customer_id  │
│ created_at          │
│ updated_at          │
└─────────────────────────┘
           │
           │ 1:N
           │
           ▼
```

```
┌─────────────────────────┐
│      SOPS          │    │
├─────────────────────────┤
│ id (PK)            │
│ user_id (FK)          │
│ title           │
│ transcript         │
│ formatted_content     │
│ pdf_url           │
│ word_count         │
│ created_at         │
│ updated_at         │
│ is_deleted         │
└─────────────────────────┘


┌─────────────────────────┐
│    API_USAGE       │    │
├─────────────────────────┤
│ id (PK)          │
│ user_id (FK)        │
│ api_provider        │
│ tokens_used        │
│ cost_usd         │
│ created_at         │
└─────────────────────────┘


┌─────────────────────────┐
│    PAYMENTS       │    │
├─────────────────────────┤
│ id (PK)          │
│ user_id (FK)        │
│ razorpay_order_id     │
│ razorpay_payment_id    │
│ amount          │
│ currency         │
│ status          │
│ subscription_tier     │
│ created_at        │
└─────────────────────────┘
```

9.2 Sample Queries

Get user's SOPs with pagination:

```sql

```

```sql
SELECT
  id,
  title,
  word_count,
  created_at,
  updated_at
FROM sops
WHERE user_id = $1
  AND is_deleted = FALSE
ORDER BY created_at DESC
LIMIT 20 OFFSET $2;
```

Check if user can create more SOPs (free tier):

```sql
sql

SELECT
  u.subscription_tier,
  COUNT(s.id) as sops_this_month
FROM users u
LEFT JOIN sops s ON s.user_id = u.id
  AND s.created_at >= date_trunc('month', CURRENT_TIMESTAMP)
  AND s.is_deleted = FALSE
WHERE u.id = $1
GROUP BY u.subscription_tier;
```

Get total API costs per user:

```sql
sql

SELECT
  user_id,
  SUM(cost_usd) as total_cost,
  COUNT(*) as api_calls
FROM api_usage
WHERE created_at >= CURRENT_DATE - INTERVAL '30 days'
GROUP BY user_id
ORDER BY total_cost DESC;
```

---

10. Marketing & Go-to-Market Strategy

10.1 Pre-Launch (Week -2 to 0)

Week -2: Build & Prepare

Development:

- ☐ Complete MVP features
- ☐ Test on 10 beta users
- ☐ Fix critical bugs
- ☐ Optimize performance

Marketing Assets:

- ☐ Record 30-second demo video
- ☐ Take screenshots of key features
- ☐ Write Product Hunt description
- ☐ Create social media graphics (Canva)
- ☐ Design email templates

Content:

- ☐ Write 3 blog posts (publish on launch day)
  - "Why Your Business Needs SOPs"
  - "How to Create SOPs 10x Faster"
  - "21 SOP Templates for Agencies"
- ☐ Prepare launch announcement posts for:
  - Twitter/X
  - LinkedIn
  - Reddit
  - IndieHackers

Week -1: Beta Testing & Hype

Beta Testing:

- ☐ Recruit 20 beta testers (friends, agency owners, Reddit)
- ☐ Send beta invites
- ☐ Collect feedback
- ☐ Get 5 testimonials with photos
- ☐ Fix any critical issues

Hype Building:

- ☐ Create Twitter thread teasing features
- ☐ Post "Coming soon" on LinkedIn
- ☐ Add email signup to landing page

☐ Target: 50 email signups before launch

Product Hunt Prep:

☐ Schedule launch for Tuesday 12:01 AM PST (best day)

☐ Prepare hunter (find someone with PH followers)

☐ Write first comment (detailed explanation)

☐ Notify supporters to upvote at launch

10.2 Launch Day (Week 0)

Hour-by-Hour Plan

12:00 AM PST (1:30 PM IST) - Go Live

☐ Submit to Product Hunt

☐ Post launch announcement on Twitter

☐ Share on LinkedIn with personal story

☐ Post in Reddit: r/Entrepreneur, r/SaaS, r/smallbusiness

☐ Post on IndieHackers

☐ Email beta testers asking for upvotes

Morning (8 AM - 12 PM IST)

☐ Reply to every comment within 10 minutes

☐ Share updates on Twitter every 2 hours

☐ Monitor analytics

☐ Fix any bugs reported

Afternoon (12 PM - 6 PM IST)

☐ Continue engaging with comments

☐ Post updates: "We're #5 on Product Hunt!"

☐ Thank supporters publicly

☐ DM influencers asking for shares

Evening (6 PM - 12 AM IST)

☐ Final push for upvotes

☐ Share behind-the-scenes stats

☐ Thank everyone who supported

☐ Prepare post-mortem post

Success Metrics for Day 1:

- Product Hunt: Top 10 ranking

- Signups: 50+ users

- Paying customers: 2-5

- Social media reach: 10,000+ impressions

10.3 Post-Launch (Week 1-4)

Week 1: Momentum

Content Marketing:

☐ Publish 1 blog post per week
☐ Guest post on agency blogs
☐ Create 5 YouTube tutorials

- "How to use VoiceSOP"

- "Creating your first SOP"

- "Best practices for process documentation"

Social Media:

☐ Post daily on Twitter
☐ Share user success stories
☐ Behind-the-scenes metrics
☐ Tips for creating better SOPs

Outreach:

☐ Cold email 50 agency owners
☐ DM 20 potential customers on LinkedIn
☐ Comment on relevant Reddit threads
☐ Join 5 Slack communities for business owners

Week 2-4: Sustained Growth

SEO Optimization:

☐ Optimize blog posts for target keywords
☐ Build backlinks (guest posts, directory listings)
☐ Submit to SaaS directories:

- Capterra

- G2

- Product Hunt (permanent listing)
- AlternativeTo

Paid Advertising (Test with ₹15,000):

☐ Google Ads: ₹10,000
☐ Facebook/Instagram: ₹5,000
☐ Track conversions closely
☐ Pause what doesn't work

User Activation:

☐ Email sequence for new users:

- Day 0: Welcome + quick start guide
- Day 1: "Create your first SOP" reminder
- Day 3: Tips for better SOPs
- Day 7: Upgrade prompt (show value)

☐ In-app onboarding tooltips
☐ Personal outreach to inactive users

10.4 Content Calendar (Month 1)

Week	Blog Post	Social Media Focus	Outreach
1	"21 SOP Templates for Agencies"	Launch announcements	Beta testers
2	"How One Restaurant Cut Training Time 60%"	User success stories	Agency owners
3	"The Real Cost of NOT Having SOPs"	ROI calculator share	Consultants
4	"SOP vs Work Instruction: What's Different?"	Educational threads	YouTube creators

---

10.5 Partnerships & Affiliates

Partner with Business Coaches

Pitch Email Template:

Subject: Partnership opportunity - Help your clients document processes

Hi [Name],

I'm building VoiceSOP - a tool that converts voice notes into professional SOPs in 60 seconds.

I noticed you work with [agency owners/consultants/small businesses]. Process documentation is always a pain point, right?

I'd love to offer your clients an exclusive 30% discount + you earn 30% revenue share on every signup.

Your clients get:
- Faster process documentation
- More consistent operations
- Time savings

You get:
- Recurring commission (₹150 per customer per month)
- Value-add for your coaching program
- No work required (just share your link)

Would you be open to a 10-minute call to discuss?

Best,
[Your Name]

P.S. Here's a sample SOP we generated: [Link]

Target 20 Coaches in Month 1

10.6 Viral Growth Loops

Loop 1: Branded PDFs

- Every exported PDF has "Created with VoiceSOP" footer

- Includes website link

- When shared internally, exposes brand to team members

Loop 2: Referral Program (Phase 2)

- Give user 1 month free for every referral who upgrades

- Referred user gets 50% off first month

- Track with unique referral links

Loop 3: Template Marketplace (Phase 3)

- Users can publish their SOPs as templates

- Templates include creator credit

- Viral coefficient: One user creates value for many

---

11. Revenue Model

11.1 Pricing Tiers

Free Tier

Price: ₹0 forever

Limits:

- 3 SOPs per month

- 15-minute max recording

- PDF export only

- Basic editing

- Email support (48-hour response)

Purpose:

- Acquisition funnel

- Product validation

- Viral growth (free users share)

Pro Tier (Monthly)

Price: ₹499/month (~$6/month)

Features:

- ✅ **Unlimited SOPs**

- ✅ Unlimited recording length

- ✅ PDF + Markdown export

- ✅ Company logo on exports
- ✅ Priority AI processing (faster queue)
- ✅ Advanced editing tools
- ✅ Email support (4-hour response)
- ✅ Access to SOP templates

Target Customer: Solo business owners, consultants, small agencies (1-5 people)

Pro Tier (Annual)

Price: ₹4,990/year (~$60/year) **Savings:** ₹1,000 (2 months free)

Same features as monthly Pro

Benefits:

- Improved cash flow for business
- Lower churn (committed for year)
- Better unit economics

Enterprise Tier (Custom)

Price: Starting at ₹9,999/month

Features:

- Everything in Pro
- Team collaboration (5+ seats)
- Custom branding (remove VoiceSOP logo)
- API access
- Dedicated account manager
- SSO (Single Sign-On)
- SLA guarantee (99.9% uptime)
- Custom integrations
- Priority feature requests

Target Customer: Mid-size companies (50-200 employees), consulting firms, franchises

---

11.2 Revenue Projections

Conservative Scenario (Year 1)

Month	Free Users	Paid Users	MRR (₹)	Total Revenue (₹)
1	50	2	998	998
2	80	5	2,495	3,493
3	120	10	4,990	8,483
4	180	16	7,984	16,467
5	250	25	12,475	28,942
6	320	35	17,465	46,407
7	380	42	20,958	67,365
8	440	50	24,950	92,315
9	500	58	28,942	121,257
10	560	65	32,435	153,692
11	620	72	35,928	189,620
12	680	80	39,920	229,540

Year 1 Total Revenue: ₹2,29,540 (~~$2,750)~~ **~~Month 12 MRR: ₹39,920~~** (~~$480)~~ **Average MRR Growth:** 40% month-over-month (first 6 months)

Assumptions:

- 15% free-to-paid conversion
- 5% monthly churn
- 70% monthly, 30% annual plans
- Organic growth + ₹20K/month marketing spend

Optimistic Scenario (Year 1)

Month	Free Users	Paid Users	MRR (₹)	Total Revenue (₹)
1	80	5	2,495	2,495
2	150	12	5,988	8,483
3	250	25	12,475	20,958
4	380	45	22,455	43,413
5	520	70	34,930	78,343
6	680	95	47,405	125,748
7	850	120	59,880	185,628
8	1,020	145	72,355	257,983
9	1,200	170	84,830	342,813
10	1,380	195	97,305	440,118
11	1,560	220	109,780	549,898
12	1,750	250	124,750	674,648

Year 1 Total Revenue: ₹6,74,648 ($8,100) ~~**Month 12 MRR:** ₹1,24,750~~ ($1,500)

Triggers for Optimistic Scenario:

- Product Hunt Top 3 ranking

- Viral blog post or social media moment

- Partnership with major business coach

- Press coverage (YourStory, Inc42, Economic Times)

11.3 Unit Economics

Customer Acquisition Cost (CAC)

Marketing Spend Breakdown (Monthly):

```
Google Ads:        ₹10,000
Facebook Ads:      ₹5,000
Content Creation:  ₹3,000
Tools & Software:  ₹2,000
-------------------------
Total:             ₹20,000/month
```

New Paying Customers per Month: 8-12 (average 10)

CAC = ₹20,000 / 10 = ₹2,000

Lifetime Value (LTV)

Average Customer Lifetime: 12 months (SaaS benchmark for SMB) **Monthly ARPU (Average Revenue Per User):** ₹499 **Gross Margin:** 85% (typical for SaaS)

LTV Calculation:

```
LTV = ARPU × Lifetime × Gross Margin
LTV = ₹499 × 12 × 0.85
LTV = ₹5,091
```

LTV:CAC Ratio = ₹5,091 / ₹2,000 = 2.5:1

✅ Acceptable (target is 3:1, can improve with better retention)

Payback Period

```
Payback = CAC / (Monthly ARPU × Gross Margin)
Payback = ₹2,000 / (₹499 × 0.85)
Payback = 4.7 months
```

✅ Good (under 12 months)

Break-Even Analysis

Monthly Fixed Costs:

```
Infrastructure (Vercel, Supabase): ₹1,000 (minimal)
Domain & Email:          ₹500
Marketing:            ₹20,000
Tools (PostHog, etc.):     ₹1,000
--------------------------------------------
Total Fixed Costs:       ₹22,500
```

Break-Even Customers:

```
₹22,500 / ₹499 = 46 paying customers
```

Target: Reach break-even by Month 5-6

11.4 Revenue Optimization Strategies

1. Reduce Churn

Tactics:

- Send "You haven't created an SOP in 14 days" email

- Quarterly "Update your SOPs" reminders

- Feature releases to re-engage users

- Personal check-in calls with high-value customers

Goal: Reduce monthly churn from 5% to 3% **Impact:** Increases LTV by 50%

---

2. Increase ARPU

Tactics:

- Upsell annual plans (save ₹1,000)

- Add-ons: Logo library (₹199/month), Team seats (₹299/month per seat)

- Enterprise tier for bigger customers

- Usage-based pricing for power users

Goal: Increase average ARPU from ₹499 to ₹650 **Impact:** 30% revenue increase with same customers

---

3. Improve Conversion

Tactics:

- A/B test pricing page

- Improve onboarding (get users to first SOP in 5 minutes)

- Targeted emails based on user behavior

- Limited-time offers for fence-sitters

Goal: Increase free-to-paid from 15% to 20% **Impact:** 33% more paying customers

---

12. Development Roadmap

12.1 MVP Phase (Weeks 1-4)

Week 1: Foundation

Goal: Set up infrastructure

Tasks:

☑ Initialize Next.js project
☑ Configure Tailwind CSS + shadcn/ui
☑ Set up Supabase database
☑ Create database tables and RLS policies
☑ Implement NextAuth with Google OAuth
☑ Build landing page layout
☑ Deploy to Vercel (staging environment)

Deliverables:

- Landing page accessible at voicesop.com

- Authentication working (sign up/login)

- Database ready for SOPs

Blockers to Watch:

- OAuth configuration issues

- Database permission problems

Week 2: Core Functionality

Goal: Voice recording + AI generation

Tasks:

- ☑ Build recording interface UI
- ☑ Integrate Web Speech API
- ☑ Display live transcript
- ☑ Set up Gemini API integration
- ☑ Create and test SOP generation prompt
- ☑ Build SOP display page
- ☑ Save SOPs to database
- ☑ Handle errors gracefully

Deliverables:

- Users can record voice
- AI generates formatted SOP
- SOPs saved and retrievable

Testing:

- Test with 10 different recording scenarios
- Verify AI output quality
- Test error handling (API failures, network issues)

Week 3: Exports & Dashboard

Goal: Complete user workflow

Tasks:

- ☑ Implement PDF generation (jsPDF)
- ☑ Design professional PDF template
- ☑ Build dashboard to list SOPs
- ☑ Add search functionality
- ☑ Implement delete (soft delete)
- ☑ Add inline editing capability
- ☑ Create onboarding email flow
- ☑ Set up PostHog analytics

Deliverables:

- Users can export as PDF
- Dashboard shows all SOPs

- Basic editing works

- Analytics tracking key events

Testing:

- PDF renders correctly on all devices

- Search works with special characters

- Delete confirmation prevents accidents

Week 4: Polish & Payments

Goal: Production-ready + monetization

Tasks:

- ☑ Integrate Razorpay
- ☑ Implement free tier limits (3 SOPs/month)
- ☑ Build upgrade flow
- ☑ Add subscription management
- ☑ Bug testing on multiple browsers
- ☑ Mobile responsive fixes
- ☑ Create demo video
- ☑ Write Product Hunt description
- ☑ Performance optimization

Deliverables:

- Payment processing works

- Free tier restrictions enforced

- MVP ready to launch

- Marketing materials prepared

Pre-Launch Checklist:

- ☐ All critical bugs fixed
- ☐ Tested by 10 beta users
- ☐ Demo video recorded
- ☐ Product Hunt submission ready
- ☐ Social media posts drafted

12.2 Growth Phase (Months 2-3)

Focus: Improve retention & conversion

Month 2 Features:

- [ ] Markdown export
- [ ] SOP templates library
- [ ] Company logo upload
- [ ] Email notifications (SOP created, ready to export)
- [ ] In-app tutorial/tooltips
- [ ] Referral program
- [ ] Mobile app (PWA)

Month 3 Features:

- [ ] Manual text input option
- [ ] Duplicate SOP as template
- [ ] Share SOP via public link
- [ ] Dark mode
- [ ] Notion integration (direct export)
- [ ] Advanced analytics dashboard

Success Metrics:

- Free-to-paid conversion: 10% → 15%

- Monthly churn: 8% → 5%

- NPS score: >40

12.3 Scale Phase (Months 4-6)

Focus: Enterprise features & integrations

Team Collaboration:

- [ ] Multi-user workspaces
- [ ] Assign SOPs to team members
- [ ] Comments on SOPs
- [ ] Activity history
- [ ] Role-based permissions

Advanced AI:

- [ ] Video upload → SOP generation

- ☐ Multi-language support (Hindi, Spanish)
- ☐ AI-powered SOP improvement suggestions
- ☐ Auto-detect missing steps

Integrations:

- ☐ Slack bot
- ☐ Google Drive sync
- ☐ Zapier
- ☐ Public API for developers

Success Metrics:

- Land 1-2 enterprise customers (₹10K+/month each)
- Reduce CAC by 30% (better conversion)
- Increase LTV to ₹8,000+

12.4 Enterprise Phase (Months 7-12)

Focus: High-touch sales & custom solutions

Enterprise Features:

- ☐ White-label (custom branding)
- ☐ SSO (Single Sign-On)
- ☐ Advanced analytics
- ☐ Compliance mode (audit logs)
- ☐ Dedicated account manager portal
- ☐ SLA guarantees
- ☐ Custom integrations

Business Development:

- ☐ Hire sales person (commission-based)
- ☐ Create enterprise sales materials
- ☐ Attend industry conferences
- ☐ Partner with consulting firms

Success Metrics:

- 3-5 enterprise customers
- Enterprise contributes 40%+ of revenue
- Expand to international markets

13. Risk Analysis & Mitigation

13.1 Technical Risks

Risk 1: Speech-to-Text Accuracy Issues

Probability: HIGH
Impact: MEDIUM

Description: Browser speech API struggles with:

- Non-native English accents

- Background noise

- Technical jargon

- Multiple speakers

Mitigation Strategies:

1. Add manual text input as backup option

2. Allow users to edit transcript before AI processing

3. Provide "Speak clearly" tips on recording page

4. Add re-recording feature if quality is poor

5. Future: Integrate better STT (Whisper API)

Risk 2: Gemini API Rate Limits

Probability: MEDIUM
Impact: HIGH

Description:

- Free tier: 1,500 requests/day

- Viral growth could exceed limits quickly

- Would block all new SOP creation

Mitigation Strategies:

1. Implement OpenAI GPT-4o-mini as automatic fallback

2. Cache common SOP structures to reduce API calls

3. Upgrade to Gemini paid tier proactively (when approaching 1,000/day)

4. Implement request queue system for high traffic

5. Monitor usage daily and set up alerts at 80% capacity

Cost if Switching to Paid:

- OpenAI GPT-4o-mini: $0.150 per 1M input tokens

- Average SOP: 1,000 tokens input, 1,500 tokens output

- Cost per SOP: ~$0.004 (₹0.35)

- At 100 SOPs/day: ₹35/day = ₹1,050/month

Risk 3: PDF Generation Failures

Probability: LOW
Impact: MEDIUM

Description:

- Complex formatting might break PDF layout

- Very long SOPs (20+ pages) could timeout

- Special characters/emojis might not render

Mitigation Strategies:

1. Test with 100+ real SOPs before launch

2. Set maximum SOP length (10,000 words)

3. Add "Generating PDF..." progress indicator

4. Offer Markdown as always-working alternative

5. Implement retry logic with exponential backoff

13.2 Business Risks

Risk 4: Low Free-to-Paid Conversion

Probability: HIGH
Impact: HIGH

Description:

- Users create 3 free SOPs and never return

- "Create and churn" behavior

- Free tier provides enough value

Mitigation Strategies:

1. **Reduce free tier to 2 SOPs/month** (force decision sooner)

2. **Add premium-only features:**
   - Custom templates
   - Logo branding
   - Team sharing

3. **Email automation:**
   - Day 3: "You've created 2 SOPs! Upgrade to continue"
   - Show ROI: "You saved ₹8,000 in consultant fees"

4. **In-app prompts:**
   - "Professional agencies use Pro"
   - Social proof from similar businesses

5. **Free trial strategy:**
   - Change to 7-day Pro trial instead of forever-free
   - Require credit card (refundable)

Target: 15-20% free-to-paid conversion

Risk 5: High Churn Rate

Probability: MEDIUM
Impact: HIGH

Description:

- Users document all processes in Month 1

- No ongoing need for the tool

- Cancel after initial documentation sprint

Mitigation Strategies:

1. **Build habit loops:**

- Weekly email: "What did you explain this week? Document it"
- In-app: "Document today's learnings"

2. **SOP maintenance features:**
   - Quarterly review reminders
   - "This SOP is 6 months old - time to update?"
   - Version control shows changes needed

3. **Add continuous value:**
   - New templates every month
   - AI suggests improvements to existing SOPs
   - Team collaboration creates network effects

4. **Annual plans:**
   - Push annual heavily (harder to cancel)
   - Offer 20% discount

5. **Exit surveys:**
   - "Why are you leaving?"
   - Address top 3 reasons in product roadmap

Target: <5% monthly churn

Risk 6: Competitor Clones Product

Probability: MEDIUM
Impact: MEDIUM

Description:

- Idea is simple to replicate
- Bigger players (Notion, Confluence) could add this feature
- Well-funded competitor launches similar tool

Mitigation Strategies:

1. **Speed:** Launch fast, iterate faster
   - Ship MVP in 4 weeks
   - Weekly feature releases

2. **Niche focus:**

- "Best SOP tool for agencies" beats "generic docs tool"
  - Deep vertical integration

3. **Build moats:**
   - Superior AI prompts (quality advantage)
   - Integrations competitors don't have
   - Community (template marketplace)

4. **Brand:**
   - Become synonymous with "voice SOPs"
   - SEO domination for related keywords

5. **Network effects:**
   - Team features create lock-in
   - Templates users contribute

Strategy: Be the best in a narrow niche before expanding

Risk 7: Negative Product Hunt Launch

Probability: LOW
Impact: MEDIUM

Description:

- Critical bugs during launch
- Negative comments hurt credibility
- Fail to gain traction (no top 10 ranking)

Mitigation Strategies:

1. **Beta test thoroughly:**
   - 20+ beta users test for 2 weeks
   - Fix all reported bugs

2. **Launch day prep:**
   - Monitor every 30 minutes
   - Respond to comments within 1 hour
   - Have team ready to upvote/engage

3. **Backup plan:**

   - If launch flops, focus on SEO + outbound

   - Product Hunt isn't only channel

4. **Be helpful:**

   - Answer every question thoughtfully

   - Admit limitations honestly

   - Offer free Pro accounts for detailed feedback

5. **Have support ready:**

   - Live chat available all day

   - Fix bugs in real-time

13.3 Market Risks

Risk 8: Target Audience Won't Pay

Probability: MEDIUM
Impact: HIGH

Description:

- Small businesses expect free tools

- "I can just use ChatGPT/Google Docs for free"

- Price sensitivity in Indian market

Mitigation Strategies:

1. **Reframe value proposition:**

   - Not selling "SOP creation" but "time savings"

   - "Your time is worth ₹2,000/hour. This saves 4 hours = ₹8,000 value"

2. **Target businesses, not individuals:**

   - B2B pays for productivity tools

   - B2C expects free

3. **Prove ROI immediately:**

   - First SOP must deliver obvious value

   - Show time saved in dashboard

4. **Case studies:**

- "Agency X onboards staff 60% faster"
- "Restaurant Y reduced training costs by ₹50K/year"

5. **Pivot pricing if needed:**

- If SMBs won't pay ₹499, target enterprises at ₹10K+
- Or usage-based (₹50 per SOP, no subscription)

Validation: Talk to 50 potential customers before scaling marketing

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Risk 9: Demand Doesn't Exist

Probability: LOW
Impact: CRITICAL

Description:

- People don't actually need/want SOPs
- Pain point isn't strong enough to pay for solution
- Market too small to be viable

Mitigation Strategies:

1. **Pre-validate before building:**

- Interview 30 target customers
- Ask: "Would you pay ₹500/month for this?"
- Need >50% to say yes

2. **MVP waitlist:**

- Gauge interest before coding
- Target: 100 signups from cold traffic

3. **Pivot quickly:**

- If no traction after 3 months:
  - Change target audience
  - Change problem being solved
  - Change pricing model

4. **Test messaging:**

- A/B test different value props

- "Save time" vs "Scale faster" vs "Reduce errors"

Kill switch: If <20 paying customers by Month 4, pivot or shut down

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14. Success Criteria & Milestones

14.1 Monthly Goals

Month 1: Successful Launch

- ✅ MVP deployed and live
- ✅ 50+ free signups
- ✅ 2-5 paying customers
- ✅ Product Hunt launch completed (Top 10 ideally)
- ✅ First ₹1,000 in revenue
- ✅ <5 critical bugs
- ✅ 3+ positive testimonials

Key Metric: Prove people will use the product

Month 2: Product Validation

- ✅ 100+ total users
- ✅ 8-12 paying customers
- ✅ ₹4,000+ MRR
- ✅ First case study published
- ✅ <10% churn
- ✅ NPS >30

Key Metric: Prove people will pay and stay

Month 3: Product-Market Fit Signals

- ✅ 150+ total users
- ✅ 15-20 paying customers
- ✅ ₹7,500+ MRR

- ✅ 10-15% free-to-paid conversion
- ✅ Organic traffic: 200+ visits/month
- ✅ 3+ organic signups per day

Key Metric: Early signs of product-market fit

Month 6: Sustainable Growth

- ✅ 400+ total users
- ✅ 40-50 paying customers
- ✅ ₹20,000+ MRR
- ✅ Break-even or near break-even
- ✅ <5% monthly churn
- ✅ SEO traffic: 800+ visits/month
- ✅ 1-2 enterprise customers

Key Metric: Business is sustainable

Month 12: Scale Achieved

- ✅ 800+ total users
- ✅ 80-100 paying customers
- ✅ ₹40,000+ MRR
- ✅ Profitable
- ✅ Team expansion (hire part-time support/marketing)
- ✅ International customers
- ✅ Planning Series A fundraise OR continue bootstrapping

Key Metric: Ready to scale to ₹1 Cr ARR

14.2 Leading Indicators (Track Weekly)

Metric	Target	Red Flag
Weekly Signups	15+	<5
Activation Rate	60% (create first SOP)	<30%
Free-to-Paid	15%	<8%
Weekly Churn	<1.5%	>3%
Support Tickets	<10/week	>30/week
NPS Score	>40	<20

14.3 Pivot Criteria

Consider pivoting if by Month 4:

1. **Low Signups:** <100 total users

    - **Action:** Revisit marketing channels or ICP

2. **Low Conversion:** <5% free-to-paid

    - **Action:** Revisit pricing or product value

3. **High Churn:** >15% monthly churn

    - **Action:** Product doesn't solve problem well enough

4. **No Engagement:** <40% activation rate

    - **Action:** Onboarding is broken or product is confusing

5. **No Product Love:** NPS <10

    - **Action:** Fundamental product issues

Pivot Options:

- Change target audience (agencies → restaurants)
- Change pricing model (subscription → pay-per-SOP)
- Change problem (SOPs → training videos)
- Shut down and try new idea

15. Tools & Resources

15.1 Development Tools

Tool	Purpose	Cost	Link
VS Code	Code editor	Free	code.visualstudio.com
GitHub	Version control	Free	github.com
Cursor AI	AI coding assistant	Free tier	cursor.sh
v0.dev	UI generation	Free tier	v0.dev
Lovable	Full app generation	Free tier	lovable.dev
Vercel	Hosting	Free (Hobby)	vercel.com
Supabase	Database + Auth	Free (500MB)	supabase.com
Gemini API	AI processing	Free (1500/day)	ai.google.dev
Razorpay	Payments	2% fee	razorpay.com

Total MVP Cost: ₹500/month (domain + email only)

15.2 Marketing Tools

Tool	Purpose	Cost
PostHog	Product analytics	Free (1M events)
Mailchimp	Email marketing	Free (500 contacts)
Canva	Graphics design	Free
OBS Studio	Screen recording	Free
Buffer	Social scheduling	Free (3 channels)
Google Analytics	Web analytics	Free

15.3 Learning Resources

Prompt Engineering:

- Anthropic Claude Prompt Engineering Guide

- Google Gemini Cookbook (GitHub)

- OpenAI Prompt Engineering Guide

SaaS Metrics:

- "SaaS Metrics 2.0" by David Skok

- Baremetrics Academy

- ChartMogul Blog

Indie Hacking:

- IndieHackers.com

- "The Minimalist Entrepreneur" by Sahil Lavingia

- "Start Small, Stay Small" by Rob Walling

- Microconf talks (YouTube)

Marketing:

- "Traction" by Gabriel Weinberg

- Growth.design case studies

- Demand Curve resources

15.4 Communities to Join

Slack/Discord:

- Indie Worldwide

- MicroConf Connect

- SaaS Growth Hacks

- Agency Hackers

Reddit:

- r/SaaS

- r/Entrepreneur

- r/smallbusiness
- r/indiehackers

Twitter/X Lists:

- Follow indie makers
- SaaS founders
- Agency owners

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16. Next Steps (Your Action Plan)

Week 1: Validate & Prepare

Days 1-2:

☐ Interview 10 potential customers (agency owners, consultants)
☐ Validate they'd pay ₹499/month
☐ Refine product based on feedback

Days 3-5:

☐ Set up development environment
☐ Initialize Next.js project
☐ Set up Supabase database
☐ Configure authentication

Days 6-7:

☐ Build landing page
☐ Deploy to Vercel
☐ Start collecting email signups

Week 2: Core Features

Days 8-10:

☐ Build voice recording interface
☐ Integrate Web Speech API
☐ Test recording quality

Days 11-14:

☐ Set up Gemini API

- [ ] Build SOP generation
- [ ] Test with 20 different transcripts
- [ ] Refine prompts for quality

Week 3: Complete MVP

Days 15-18:

- [ ] Build dashboard
- [ ] Add PDF export
- [ ] Implement basic editing
- [ ] Add search and delete

Days 19-21:

- [ ] Integrate Razorpay
- [ ] Add free tier limits
- [ ] Test payment flow
- [ ] Bug fixes

Week 4: Polish & Launch

Days 22-25:

- [ ] Beta test with 20 users
- [ ] Fix critical bugs
- [ ] Create demo video
- [ ] Write Product Hunt description

Days 26-28:

- [ ] Prepare launch assets
- [ ] Schedule Product Hunt launch
- [ ] Write social media posts
- [ ] **LAUNCH!**

Month 2-3: Iterate & Grow

- [ ] Ship new features based on feedback
- [ ] Content marketing (blog posts)
- [ ] Cold outreach to agencies
- [ ] Optimize conversion funnel

- [ ] Hit ₹10,000 MRR

Conclusion

You have everything you need to build VoiceSOP:

✅ **Clear Problem:** Small businesses need SOPs but hate writing them
✅ **Simple Solution:** Voice → AI → Professional PDF
✅ **Validated Market:** 5M+ small businesses in India alone
✅ **Low Technical Risk:** Proven APIs, simple tech stack
✅ **Fast MVP:** 4 weeks to launch
✅ **Sustainable Business Model:** SaaS with good unit economics

The only question left is: Will you start?

90% of people who read this will do nothing.
9% will start but quit after 2 months.
1% will ship, iterate, and build a real business.

Be in the 1%.

Start building Week 1 tomorrow.
Ship MVP in 4 weeks.
Reach ₹10,000 MRR in 6 months.

Good luck! 🚀

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