PITCHCRAFT - COMPLETE PROJECT DOCUMENTATION

Built at SMIT Hackathon 2025

Developer: [Your Name]

Duration: 7 Days

Date: [Hackathon Date]

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1. PROJECT OVERVIEW

What is PitchCraft?

PitchCraft is an AI-powered startup pitch generator that transforms rough business ideas into professional, investor-ready pitches in minutes. The platform leverages Google Gemini AI for content generation and Reve AI for logo design, providing entrepreneurs with a complete branding package.

Problem Statement

Aspiring entrepreneurs face three major challenges:

- Lack of professional copywriting skills for pitches
- Cannot afford expensive designers for logos and branding
- No technical knowledge to build landing pages
- Limited time to prepare for investor meetings

Solution

PitchCraft democratizes startup pitch creation by:

- Generating comprehensive pitches using AI
- Creating professional logos automatically
- Producing landing page content with brand colors
- Exporting everything to PDF format
- Enabling easy sharing via public links

Target Users

- First-time founders
- Hackathon participants
- Student entrepreneurs
- Startup accelerator members
- Anyone with a business idea

2. TECH STACK

Frontend Technologies

- React.js UI library for building interactive interfaces
- Vite Next-generation frontend tooling for fast builds
- TailwindCSS Utility-first CSS framework
- Lucide React Beautiful icon library
- React Router DOM v6 Client-side routing

Backend & Database

- Supabase Backend-as-a-Service platform
 - PostgreSQL Database
 - Authentication & Authorization
 - Cloud Storage
 - o Real-time subscriptions

Al Integration

- Google Gemini 2.0 Flash Natural language generation
- Reve AI Image generation for logos

Additional Libraries

- **jsPDF** PDF generation
- html2canvas HTML to canvas conversion
- React Hot Toast Toast notifications

Development Tools

- Git & GitHub Version control
- VS Code Code editor
- Postman API testing
- Chrome DevTools Debugging

3. PROJECT STRUCTURE

```
hackathon-project/
   - src/

    components/
    Sidebar.jsx
    TopBar.jsx
    # Reusable UI Components
    # Left navigation sidebar
    # Top action bar

        — ChatArea.jsx # Main content display
— InputArea.jsx # User input section
— PitchCard.jsx # Pitch display cards
       LandingPageModal.jsx # Landing page preview index.js # Component exports
       Pages/ # Main application pages
       Login.jsx # User login
Signup.jsx # User registration
        — ForgotPassword.jsx # Password reset request
        — UpdatePassword.jsx # New password entry
        — Dashboard.jsx # Main application
       SharedPitch.jsx # Public pitch view
       – hooks/ # Custom React Hooks
       —— usePitchGenerator.js # Pitch generation logic
       — useLogoGenerator.js # Logo creation logic
       usePitchManagement.js# CRUD operations
       – utils/ # Helper Functions
       — authHelper.js # Authentication utilities
          — pitchParser.js # Response parsing
       pdfExporter.js # PDF generation
       — lib/
       upabaseClient.js # Supabase configuration
                       # Root component
       App.jsx
      — main.jsx # Application entry point
                 # Environment variables
    - .env
```

— vercel.json # Deployment configuration

Project documentation

4. APPLICATION FLOW

4.1 Authentication Flow

Step 1: User Registration

- 1. User opens application
- 2. Clicks "Sign up here" on login page
- 3. Navigates to /signup
- 4. Enters: Full Name, Phone, Email, Password
- 5. Submits form
- 6. Supabase creates user account
- 7. User metadata stored: Display name, Phone
- 8. Success: Redirects to login page

Step 2: User Login

- 1. User enters email and password
- 2. Supabase validates credentials
- 3. JWT token generated
- 4. User object stored in localStorage
- 5. Navigates to /dashboard

Step 3: Password Reset

- 1. User clicks "Forgot password"
- 2. Enters email address
- 3. Supabase sends reset link to email
- 4. User clicks link in email
- 5. Redirects to /update-password?token=...
- 6. Enters new password twice
- 7. Supabase updates password
- 8. User signed out and redirected to login

Code Example:

```
// Login Handler
const handleLogin = async (e) => {
 e.preventDefault();
 setLoading(true);
```

```
const { data, error } = await supabase.auth.signInWithPassword({
   email,
   password,
});

if (error) {
   setError(error.message);
} else {
   localStorage.setItem("user", JSON.stringify(data.user));
   navigate("/dashboard");
}

setLoading(false);
};
```

4.2 Dashboard Initialization Flow

Step 1: Check Authentication

```
javascript
useEffect(() => {
 const checkAuth = async () => {
  // Check Supabase session
  const { data: { session } } = await supabase.auth.getSession();
  if (session?.user) {
   setUser(session.user);
   localStorage.setItem("user", JSON.stringify(session.user));
   // Fetch user's saved pitches
   fetchSavedPitches(session.user.id);
   // Initialize or restore conversation
   const savedConvId = localStorage.getItem("currentConversationId");
   if (savedConvId) {
    setCurrentConversationId(savedConvId);
    fetchConversationHistory(savedConvId);
   } else {
    const newConvId = `conv ${Date.now()} ${Math.random().toString(36).substr(2, 9)}`;
    setCurrentConversationId(newConvId);
    localStorage.setItem("currentConversationId", newConvId);
   }
  } else {
   navigate("/");
 };
```

```
checkAuth();
}, []);
```

Step 2: Fetch Saved Pitches

```
javascript
const fetchSavedPitches = async (userId) => {
 const { data, error } = await supabase
  .from("pitches")
  .select("*")
  .eq("user_id", userId)
  .order("created_at", { ascending: false });
 if (!error) {
  setSavedPitches(data);
 }
};
### **4.3 Pitch Generation Flow**
**Complete Flow Diagram:**
User Input
Validation Check
Build Al Prompt
Call Gemini API
Receive Response
Parse Response
Save to Database
Update UI
 \downarrow
```

Step-by-Step Implementation:

Save to Conversation History

Step 1: User Input

```
javascript
// InputArea.jsx
<textarea
 placeholder="Describe your startup idea..."
 value={prompt}
 onChange={(e) => setPrompt(e.target.value)}
 onKeyDown={(e) => {
  if (e.key === "Enter" && !e.shiftKey) {
   e.preventDefault();
   generatePitch();
}}
/>
Step 2: Validation
javascript
// usePitchGenerator.js
const isValidStartupPrompt = (text) => {
 const lowerText = text.toLowerCase().trim();
 if (!lowerText) return false;
 // If previous pitch exists, allow follow-up questions
 if (responseData?.name) return true;
 // Reject general knowledge questions
 const rejectedPatterns = [
  /^who is (donald trump|elon musk)/i,
  /^what is the capital of/i,
  /^tell me a joke/i,
 1;
 const isRejected = rejectedPatterns.some(pattern =>
  pattern.test(lowerText)
 );
 if (isRejected) return false;
 // Check for startup keywords
 const startupKeywords = [
  "startup", "app", "idea", "product", "business",
  "service", "platform", "build", "create", "solve"
 1;
 const hasKeyword = startupKeywords.some(keyword =>
  lowerText.includes(keyword)
 );
```

```
// Allow long descriptions
 const isLongDescription = text.trim().length > 40;
 return hasKeyword || isLongDescription;
};
Step 3: Build Prompt for Gemini
javascript
const fullPrompt = `
You are a startup pitch assistant.
Task: Generate a startup name, tagline, pitch, target audience,
landing page content, brand colors, and logo concept.
Format your response EXACTLY in this structure:
Startup Name: [name]
Tagline: [tagline]
Pitch: [2-3 sentence elevator pitch]
Target Audience: [describe ideal customers]
Landing Page Content:
Hero Section: [content]
Problem Statement: [content]
Solution: [content]
Key Features:
- [feature 1]
- [feature 2]
- [feature 3]
Call to Action: [content]
Brand Colors: [#hex1, #hex2, #hex3, #hex4, #hex5]
Logo Concept: [description]
Business Idea: ${prompt}
Tone: $\{\text{tone}\}
Step 4: Call Gemini API
javascript
const generatePitch = async () => {
 setLoading(true);
 const API_KEY = import.meta.env.VITE_GEMINI_API_KEY;
 const url =
`https://generativelanguage.googleapis.com/v1beta/models/gemini-2.0-flash:generateConten
t?key=${API_KEY}`;
```

```
const res = await fetch(url, {
  method: "POST",
  headers: { "Content-Type": "application/json" },
  body: JSON.stringify({
    contents: [{ parts: [{ text: fullPrompt }] }],
  }),
});

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

// Continue to parsing...
  setLoading(false);
};
```

Step 5: Parse Response

```
const parsePitchResponse = (text) => {
 const lines = text.split("\n").map((I) => I.trim());
 const sections = {
  name: "",
  tagline: "",
  pitch: "",
  audience: "",
  landing: "",
  colors: [],
  logoldea: "",
 };
 let currentKey = null;
 let landingContent = "";
 lines.forEach((line) => {
  if (/^Startup Name:/i.test(line)) {
    currentKey = "name";
    sections.name = line.replace(/^(Startup Name:|Name:)\s*/i, "");
  } else if (/^Tagline:/i.test(line)) {
    currentKey = "tagline";
    sections.tagline = line.replace(/^Tagline:\s*/i, "");
  } else if (/^Pitch:/i.test(line)) {
    currentKey = "pitch";
    sections.pitch = line.replace(/^Pitch:\s*/i, "");
  // ... continue for other sections
 });
```

```
sections.landing = landingContent.trim();
return sections;
};
```

Step 6: Save to Database

```
javascript
```

```
const { data: insertedData, error } = await supabase
 .from("pitches")
 .insert([{
  user_id: user.id,
  conversation_id: currentConversationId,
  idea: prompt,
  tone,
  name: parsed.name,
  tagline: parsed.tagline,
  pitch: parsed.pitch,
  audience: parsed.audience,
  landing: parsed.landing,
  colors: parsed.colors.join(","),
  logo idea: parsed.logoldea,
  is_latest_pitch: true,
 }])
 .select();
if (!error) {
 setCurrentChatId(insertedData[0].id);
 fetchSavedPitches(user.id);
 toast.success("Pitch generated and saved!");
}
### **4.4 Logo Generation Flow**
**Complete Flow:**
User Clicks "Generate Al Logo"
Extract Logo Concept from Pitch
Build Prompt for Reve Al
Call Reve API
  \downarrow
```

```
Receive Base64 Image
Convert Base64 to Blob
Upload to Supabase Storage
Get Public URL
  1
Save URL to Database
  \downarrow
Display Logo in UI
Implementation:
Step 1: Initiate Generation
javascript
const generateLogo = async () => {
 if (!responseData?.logoldea) {
 toast.error("Logo concept not found. Generate a pitch first.");
  return;
 setLogoGenerating(true);
 // Continue...
};
Step 2: Call Reve Al
javascript
const API_URL = "https://api.reve.com/v1/image/create";
const API KEY = import.meta.env.VITE REVE API KEY;
const res = await fetch(API_URL, {
 method: "POST",
 headers: {
  Authorization: `Bearer ${API KEY}`,
  "Content-Type": "application/json",
  Accept: "application/json",
 },
 body: JSON.stringify({
  prompt: `Professional startup logo: ${responseData.logoldea}. Modern, clean, minimalist
design for ${responseData.name}`,
  aspect_ratio: "1:1",
  version: "latest",
```

}),

```
});
const data = await res.json();
const base64Image = `data:image/png;base64,${data.image}`;
Step 3: Convert to Blob
javascript
const uploadLogoToSupabase = async (base64Image, logoName) => {
 // Extract base64 data
 const base64Data = base64Image.split(',')[1];
 const byteCharacters = atob(base64Data);
 const byteNumbers = new Array(byteCharacters.length);
 for (let i = 0; i < byteCharacters.length; i++) {
  byteNumbers[i] = byteCharacters.charCodeAt(i);
 }
 const byteArray = new Uint8Array(byteNumbers);
 const blob = new Blob([byteArray], { type: 'image/png' });
 // Continue to upload...
};
Step 4: Upload to Storage
javascript
const timestamp = Date.now();
const fileName = `${logoName.replace(/[^a-zA-Z0-9]/g, '-')}-${timestamp}.png`;
const filePath = `logos/${user.id}/${fileName}`;
const { data, error } = await supabase.storage
 .from('hackathon-images')
 .upload(filePath, blob, {
  contentType: 'image/png',
  upsert: false
 });
if (error) throw error;
// Get public URL
const { data: urlData } = supabase.storage
 .from('hackathon-images')
 .getPublicUrl(filePath);
return urlData.publicUrl;
```

Step 5: Save to Database

```
javascript
```

```
const publicUrl = await uploadLogoToSupabase(base64Image, responseData.name);
setGeneratedLogoUrl(publicUrl);
toast.success("Logo generated and saved successfully!");

if (currentChatId) {
    await supabase
    .from("pitches")
    .update({ generated_logo_url: publicUrl })
    .eq("id", currentChatId);

fetchSavedPitches(user.id);
}
```

4.5 Landing Page Preview Flow

Step 1: Parse Landing Content

```
javascript
```

```
const formatLandingPage = (content) => {
 const sections = {
  hero: "",
  problem: "",
  solution: "",
  features: [],
  cta: "",
 };
 const lines = content.split("\n");
 let currentSection = null;
 lines.forEach((line) => {
  const trimmed = line.trim();
  if (!trimmed) return;
  if (/^Hero Section:/i.test(trimmed)) {
   currentSection = "hero";
   sections.hero = trimmed.replace(/^Hero Section:\s*/i, "");
  } else if (/^Problem Statement:/i.test(trimmed)) {
   currentSection = "problem";
   sections.problem = trimmed.replace(/^Problem Statement:\s*/i, "");
  }
  // ... continue for other sections
```

```
});
 return sections;
};
Step 2: Render Modal
javascript
// LandingPageModal.jsx
const LandingPageModal = ({ showLandingPage, setShowLandingPage, responseData })
=> {
 const sections = formatLandingPage(responseData.landing);
 const colors = responseData.colors;
 return (
  <div className="fixed inset-0 bg-black/80 z-50 overflow-y-auto">
   {/* Hero Section */}
   <div style={{
    background: `linear-gradient(135deg, ${colors[0]}, ${colors[1]})`
   }}>
    <h1>{responseData.name}</h1>
    {sections.hero}
   </div>
   {/* Problem Section */}
   <div>
    <h2>The Problem</h2>
    {sections.problem}
   </div>
   {/* Solution Section */}
   <div>
    <h2>Our Solution</h2>
    {sections.solution}
   </div>
   {/* Features Section */}
    {sections.features.map((feature, idx) => (
      <div key={idx}>{feature}</div>
    ))}
   </div>
   {/* CTA Section */}
   <div>
    <h2>Ready to Get Started?</h2>
```

{sections.cta}

```
</div>
</div>
);
```

4.6 PDF Export Flow

Step 1: Initialize PDF

```
javascript
```

```
const handleExportPDF = async (responseData, generatedLogoUrl) => {
  const doc = new jsPDF();
  const pageWidth = doc.internal.pageSize.getWidth();
  const pageHeight = doc.internal.pageSize.getHeight();
  const margin = 20;
  let yPos = 20;

// Add header
  doc.setFillColor(6, 182, 212);
  doc.rect(0, 0, pageWidth, 30, "F");
  doc.setTextColor(255, 255, 255);
  doc.text("PitchCraft", margin, 18);

yPos = 45;

// Continue...
};
```

Step 2: Add Text Content

```
// Startup Name
doc.setTextColor(0, 0, 0);
doc.setFontSize(22);
doc.setFont("helvetica", "bold");
doc.text(responseData.name, margin, yPos);
yPos += 15;
// Tagline
doc.setFontSize(14);
doc.setFont("helvetica", "italic");
doc.text(responseData.tagline, margin, yPos);
yPos += 20;
// Elevator Pitch
```

```
doc.setFont("helvetica", "bold");
doc.setTextColor(6, 182, 212);
doc.text("Elevator Pitch", margin, yPos);
yPos += 8;
doc.setFont("helvetica", "normal");
doc.setTextColor(0, 0, 0);
const pitchLines = doc.splitTextToSize(responseData.pitch, maxWidth);
doc.text(pitchLines, margin, yPos);
yPos += pitchLines.length * 6 + 12;
Step 3: Capture Landing Page
iavascript
// Create temporary container
const tempContainer = document.createElement("div");
tempContainer.style.position = "absolute";
tempContainer.style.left = "-9999px";
tempContainer.style.width = "1200px";
document.body.appendChild(tempContainer);
// Generate HTML
const sections = formatLandingPage(responseData.landing);
tempContainer.innerHTML = `
 <div style="width: 1200px; background: white;">
  <!-- Hero Section -->
  <div style="background: linear-gradient(135deg, ${colors[0]}, ${colors[1]});">
   <h1>${responseData.name}</h1>
   ${sections.hero}
  </div>
  <!-- Other sections... -->
 </div>
// Capture as image
const canvas = await html2canvas(tempContainer, {
 scale: 2,
 useCORS: true.
 backgroundColor: '#ffffff'
});
document.body.removeChild(tempContainer);
// Add to PDF
const imgData = canvas.toDataURL("image/png");
const imgWidth = pageWidth - 2 * margin;
const imgHeight = (canvas.height * imgWidth) / canvas.width;
```

Step 4: Add Logo

```
javascript
if (generatedLogoUrl) {
 const logoImg = await loadImageAsBase64(generatedLogoUrl);
 const logoSize = 60;
 doc.addlmage(logolmg, "PNG", margin, yPos, logoSize, logoSize);
}
// Helper function
const loadImageAsBase64 = (url) => {
 return new Promise((resolve, reject) => {
  const img = new Image();
  img.crossOrigin = "anonymous";
  img.onload = () => {
   const canvas = document.createElement("canvas");
   canvas.width = img.width;
   canvas.height = img.height;
   const ctx = canvas.getContext("2d");
   ctx.drawlmage(img, 0, 0);
   resolve(canvas.toDataURL("image/png"));
  };
  img.onerror = reject;
  img.src = url;
});
}:
```

Step 5: Add Footer & Download

javascript

// Download

```
doc.save(`PitchCraft-${responseData.name}.pdf`);
toast.success("PDF downloaded successfully!");
```

4.7 Share Pitch Flow

Step 1: Generate Share Link

```
javascript
const handleShare = async () => {
    if (!currentChatId) {
        toast.error("No pitch to share");
        return;
    }

    const shareUrl = `${window.location.origin}/pitch/${currentChatId}`;
    await navigator.clipboard.writeText(shareUrl);
    toast.success("Share link copied to clipboard!");
};
```

Step 2: Public View Page

```
// SharedPitch.jsx
const SharedPitch = () => {
 const { id } = useParams();
 const [pitch, setPitch] = useState(null);
 const [loading, setLoading] = useState(true);
 useEffect(() => {
  const fetchPitch = async () => {
    const { data, error } = await supabase
     .from("pitches")
     .select("*")
     .eq("id", id)
     .single();
    if (error) {
    toast.error("Pitch not found");
   } else {
     setPitch({
      name: data.name,
      tagline: data.tagline,
      pitch: data.pitch,
      audience: data.audience,
      colors: data.colors.split(","),
```

```
logoldea: data.logo_idea,
      generatedLogoUrl: data.generated_logo_url,
    });
   }
   setLoading(false);
  };
  fetchPitch();
 }, [id]);
 if (loading) return <div>Loading...</div>;
 if (!pitch) return <div>Pitch not found</div>;
 return (
  <div>
   {/* Display pitch content */}
   <h1>{pitch.name}</h1>
   {pitch.tagline}
   {/* ... other content */}
  </div>
 );
};
```

4.8 Edit & Save Flow

Step 1: Enable Edit Mode

```
javascript
```

```
const handleEdit = (field) => {
  if (!editedData) {
    setEditedData({ ...responseData });
  }
  setEditMode({ ...editMode, [field]: true });
};
```

Step 2: Handle Input Changes

javascript

```
const handleInputChange = (field, value) => {
  setEditedData({ ...editedData, [field]: value });
};
```

Step 3: Save to Database

```
const handleSave = async (field) => {
  setEditMode({ ...editMode, [field]: false });
  setResponseData({ ...editedData });

if (currentChatId) {
  const { error } = await supabase
    .from("pitches")
    .update({ [field]: editedData[field] })
    .eq("id", currentChatId);

if (error) {
  toast.error("Failed to save changes");
  } else {
    toast.success("Changes saved!");
    fetchSavedPitches(user.id);
  }
};
```

Step 4: UI Implementation

```
javascript
// PitchCard.jsx
{editMode.name ? (
 <input
  type="text"
  value={editedData?.name || ""}
  onChange={(e) => handleInputChange("name", e.target.value)}
  onBlur={() => handleSave("name")}
  autoFocus
  className="text-3xl font-bold text-white bg-slate-700/50 border border-cyan-500
rounded-lg px-3 py-2 w-full"
/>
):(
 <h3
  className="text-3xl font-bold text-white cursor-pointer hover:text-cyan-400"
  onClick={() => handleEdit("name")}
 {responseData.name}
 </h3>
)}
```

5. DATABASE SCHEMA

5.1 Supabase Tables

Table 1: pitches

```
sql
CREATE TABLE pitches (
id SERIAL PRIMARY KEY,
user_id UUID NOT NULL REFERENCES auth.users(id) ON DELETE CASCADE,
 conversation id TEXT,
 idea TEXT NOT NULL,
 tone TEXT DEFAULT 'Formal',
 name TEXT NOT NULL,
 tagline TEXT,
 pitch TEXT,
 audience TEXT,
 landing TEXT,
 colors TEXT,
 logo idea TEXT,
 generated logo url TEXT,
 is_latest_pitch BOOLEAN DEFAULT true,
 created at TIMESTAMP WITH TIME ZONE DEFAULT NOW().
 updated at TIMESTAMP WITH TIME ZONE DEFAULT NOW()
);
-- Indexes for performance
CREATE INDEX idx pitches user id ON pitches(user id);
CREATE INDEX idx pitches created at ON pitches(created at DESC);
CREATE INDEX idx_pitches_conversation_id ON pitches(conversation_id);
```

Field Descriptions:

- id Unique identifier (auto-increment)
- user_id Foreign key to auth.users
- conversation_id Groups related pitches
- idea Original user input
- tone Selected tone (Formal, Fun, Professional, Casual)
- name Generated startup name
- tagline Generated tagline
- pitch Elevator pitch
- audience Target audience description
- landing Landing page content
- colors Comma-separated hex colors
- logo_idea Al-generated logo concept
- generated_logo_url Public URL of uploaded logo
- is_latest_pitch Flag for latest version

- created_at Timestamp of creation
- updated_at Timestamp of last update

Table 2: pitch_conversations

```
sql
```

```
CREATE TABLE pitch_conversations (
    id SERIAL PRIMARY KEY,
    conversation_id TEXT NOT NULL,
    user_id UUID NOT NULL REFERENCES auth.users(id) ON DELETE CASCADE,
    pitch_id INTEGER REFERENCES pitches(id) ON DELETE SET NULL,
    message_type TEXT CHECK (message_type IN ('user_prompt', 'user_question',
    'ai_response')),
    user_message TEXT NOT NULL,
    response_data JSONB,
    created_at TIMESTAMP WITH TIME ZONE DEFAULT NOW()
);
-- Indexes
CREATE INDEX idx_conversations_user_id ON pitch_conversations(user_id);
CREATE INDEX idx_conversations_conv_id ON pitch_conversations(conversation_id);
CREATE INDEX idx_conversations_created_at ON pitch_conversations(created_at DESC);
```

Field Descriptions:

- id Unique identifier
- conversation_id Groups messages in same conversation
- user_id Foreign key to auth.users
- pitch_id Optional reference to pitch
- message_type Type of message (prompt, question, response)
- user_message User's input text
- response_data Al response stored as JSON
- created_at Timestamp

5.2 Row Level Security (RLS) Policies

Pitches Table Policies: