

# **Product Requirements Document (PRD)**

## **AI-Powered Business Name Generator for Trademarkia**

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### **1. Executive Summary**

Trademarkia, a leader in online trademark services, is developing an AI-powered Business Name Generator to revolutionize how entrepreneurs and small business owners create and protect their brand identities. This innovative tool will combine advanced artificial intelligence with Trademarkia's extensive legal expertise and trademark database to offer a unique, comprehensive solution for business naming.

**Key Objectives:**

1. Provide a user-friendly, AI-driven platform for generating creative and legally viable business names.
2. Integrate real-time trademark availability checks to ensure legal compliance from the outset.
3. Streamline the journey from name ideation to trademark registration, enhancing Trademarkia's service offering.
4. Capture potential customers earlier in their business journey, increasing conversion rates for trademark services.
5. Establish Trademarkia as an innovative leader in the intersection of AI and legal tech.

### **Strategic Alignment:**

This tool aligns with Trademarkia's mission to simplify and democratize the trademark process. By offering value at the crucial naming stage, we position ourselves as a trusted partner throughout the business lifecycle, from conception to protection.

## **2. Market Research**

### **2.1 Industry Analysis**

The global brand management market size was valued at \$16.47 billion in 2023 and is expected to grow at a CAGR of 13.5% from 2024 to 2030 (Grand View Research, 2024). This growth is driven by increasing digital entrepreneurship and the rising importance of brand protection.

### **2.2 Target Market**

- Primary: Small business owners and startups in the United States
- Secondary: Marketing agencies, business consultants, and serial entrepreneurs
- Estimated market size: 31.7 million small businesses in the US (SBA, 2023)

## 2.3 Existing Tools Analysis

Tool	Key Features	Pricing	Strengths	Weaknesses
Namelix	AI-powered, logo creation	Freemium (\$0-\$49/month)	Visual appeal, AI sophistication	No legal checks, limited customization
Shopify Business Name Generator	Keyword-based, domain check	Free	Large user base, e-commerce focus	Basic algorithm, no trademark check
Oberlo	Name ideas, domain check	Free	Integrated with Shopify, business resources	Limited to e-commerce, basic suggestions
Brandroot	Curated domains, logo included	Premium (\$300-\$5000+)	Pre-vetted names, complete packages	Expensive, limited customization
SquadHelp	Crowdsourced names, trademark check	Contest-based (\$299-\$1199)	Human creativity, comprehensive services	Time-consuming, expensive for startups

## 2.4 Gaps and Opportunities

1. **Lack of Integrated Legal Checks:** Most tools focus on creativity without addressing legal viability.
2. **Limited AI Sophistication:** Existing AI tools often produce generic results without industry-specific understanding.
3. **Disconnected Services:** Users often need to use multiple platforms for naming, domain registration, and trademark filing.

4. **Insufficient Education:** Limited guidance on the importance and process of trademark protection.
5. **Customization Limitations:** Many tools offer limited options for tailoring name suggestions to specific brand attributes.

## 2.5 Competitive Advantage

1. **Legal Expertise Integration:** Leverage Trademarkia's extensive legal knowledge and trademark database for real-time availability checks.
2. **Advanced AI Algorithm:** Develop a proprietary AI model that understands industry-specific naming conventions and trends.
3. **End-to-End Service:** Offer a seamless journey from name generation to trademark registration within a single platform.
4. **Educational Component:** Incorporate interactive learning modules on branding and trademark law throughout the tool.
5. **Customization Capabilities:** Provide advanced options for users to fine-tune AI suggestions based on specific brand attributes and preferences.

## 3. User Personas

### 3.1 Startup Founder Sarah

#### Demographics:

- Age: 32
- Location: Austin, TX
- Education: MBA from UT Austin
- Tech Savvy: High

#### Psychographics:

- Values sustainability and innovation
- Active on social media, particularly Instagram and LinkedIn
- Attends startup events and follows tech blogs

#### Goals:

- Launch an eco-friendly home goods e-commerce business

- Establish a unique brand identity that resonates with environmentally conscious consumers
- Secure necessary legal protections for her brand

**Main Points:**

- Limited time and resources to devote to the naming process
- Concerns about inadvertently infringing on existing trademarks
- Wants a name that's both creative and aligned with her brand values
- Needs to ensure the chosen name is available across all platforms (business, domain, social media)

**Scenario:**

Sarah has been developing her eco-friendly product line for months and is ready to launch, but she's stuck on finding the perfect brand name. She needs a solution that can quickly generate creative, environmentally-themed names while ensuring they're legally available to use.

**How Our Tool Helps:**

- Provides AI-generated names tailored to the eco-friendly home goods industry
- Offers real-time trademark and domain availability checks
- Suggests names that align with specified brand values (e.g., sustainability, innovation)
- Streamlines the process from name selection to trademark filing

## **3.2 Small Business Owner Mike**

### **Demographics:**

- Age: 45
- Location: Asheville, NC
- Education: Culinary Arts Diploma
- Tech Savvy: Moderate

### **Psychographics:**

- Values tradition and community
- Prefers face-to-face interactions over digital communication
- Active in local business associations

### **Goals:**

- Rebrand and expand his local bakery to appeal to a wider audience
- Protect his business identity as he grows
- Maintain connection to local roots while attracting new customers

### **Pain Points:**

- Limited experience with digital tools and online processes
- Concerned about losing loyal customers with a dramatic rebrand
- Unsure about the legal implications of changing his business name
- Limited budget for branding and legal services

**Scenario:**

Mike's bakery has been a local favorite for 15 years, but as Asheville grows, he sees an opportunity to expand. He wants to rebrand to appeal to both locals and tourists but is overwhelmed by the process and concerned about making costly mistakes.

**How Our Tool Helps:**

- Provides a user-friendly interface with clear, jargon-free explanations
- Offers name suggestions that can incorporate elements of his existing brand
- Provides clear information on trademark status and the importance of protection
- Offers affordable packages that combine naming and basic trademark services

**3.3 Serial Entrepreneur Alex****Demographics:**

- Age: 38
- Location: Digital Nomad (currently in Bali)
- Education: Self-taught, multiple online certifications
- Tech Savvy: Very High

**Psychographics:**

- Thrives on innovation and fast-paced environments
- Active on multiple social media platforms and online entrepreneur forums
- Constantly exploring new business ideas and technologies

**Goals:**

- Quickly launch multiple ventures across various industries

- Create memorable brand names that can grow into strong trademarks
- Streamline the business setup process to maximize efficiency

**Main Points:**

- Needs to rapidly generate and validate business names for multiple projects
- Requires names that are globally appealing and legally viable in multiple markets
- Wants to avoid potential legal issues that could slow down or complicate launches
- Needs a tool that can keep up with their fast-paced, idea-to-execution workflow

**Scenario:**

Alex has simultaneously identified opportunities in the wellness app space and sustainable fashion. They need to quickly generate, validate, and secure names for both ventures, ensuring each name works across multiple platforms and international markets.

**How Our Tool Helps:**

- Provides rapid name generation with options to save and compare across multiple projects
- Offers comprehensive checks (trademark, domain, social media) across multiple countries
- Allows for quick iteration and refinement of name ideas based on real-time feedback
- Integrates seamlessly with Trademarkia's global trademark registration services for fast protection



## 4. Feature List & Prioritization

Feature	Priority	Impact	Feasibility	Alignment	Description
AI-Powered Name Generation	High	High	Medium	High	Utilize advanced NLP models to generate creative, relevant business names based on user inputs
Real-time Trademark Availability Check	High	High	High	High	Integrate with Trademarkia's database for instant trademark availability results
Industry-Specific Suggestions	Medium	High	Medium	High	Tailor name suggestions to specific industries and business types
Domain Availability Check	High	Medium	High	Medium	Real-time domain name availability check across multiple TLDs
Social Media Handle Check	Medium	Medium	Medium	Medium	Verify availability of handles on major social media platforms
Name Customization Options	Medium	Medium	High	Medium	Allow users to set preferences for name length, style, use of prefixes/suffixes

Saved Names and Comparison	Low	Medium	High	Low	Enable users to save favorite names and compare them side-by-side
Integration with Trademarkia Services	High	High	Medium	High	Seamless transition from name selection to trademark filing process
Educational Content on Trademarks	Medium	Medium	High	High	Incorporate interactive tutorials and tips on trademark law and branding
User Accounts and History	Low	Low	High	Medium	Allow users to create accounts to save progress and view history
Multilingual Support	Low	Medium	Low	Medium	Offer name generation and interface in multiple languages
AI-Powered Logo Suggestions	Low	High	Low	Low	Generate basic logo ideas based on selected business names
Collaboration Tools	Low	Medium	Medium	Low	Allow teams to collaborate on name selection process
Name Story Generator	Low	Medium	Medium	Medium	AI-generated brand stories or

					explanations for suggested names
Industry Trend Insights	Medium	High	Medium	High	Provide data on naming trends within specific industries

### Minimum Viable Product (MVP) Features:

1. AI-Powered Name Generation
2. Real-time Trademark Availability Check
3. Domain Availability Check
4. Basic Name Customization Options
5. Integration with Trademarkia Services

## 5. User Flow & Wireframes

### 5.1 Detailed User Flow

#### 1. Entry Point

- User arrives at Trademarkia homepage
- Clicks on "Business Name Generator" tool

#### 2. Welcome/Intro Screen

- Brief explanation of the tool
- Option to watch a quick tutorial
- "Get Started" button

#### 3. Business Details Input

- Industry selection (dropdown)

- Keywords input (at least 3)
- Brand attributes selection (checkboxes: Modern, Traditional, Playful, Serious, etc.)
- Preferred name length (slider)

#### **4. AI Generation Process**

- Loading screen with tips about naming and trademarks
- Option to view more detailed educational content while waiting

#### **5. Name Suggestions Display**

- List of generated names (10-15 per page)
- Each name shows:
  - Trademark availability indicator
  - Domain availability
  - Social media handle availability
- Option to regenerate or load more names

#### **6. Name Selection and Refinement**

- User can star/save favorite names
- Option to customize or tweak selected names
- Side-by-side comparison of saved names

#### **7. Detailed Name View**

- Expanded information on selected name
- Trademark status details

- Available domains list
- Social media availability breakdown
- AI-generated brand story or name explanation

## **8. Decision and Actions**

- User selects final name
- Options presented:
  - Proceed to trademark registration
  - Save name and continue exploring
  - Purchase domain

## **9. Transition to Trademarkia Services**

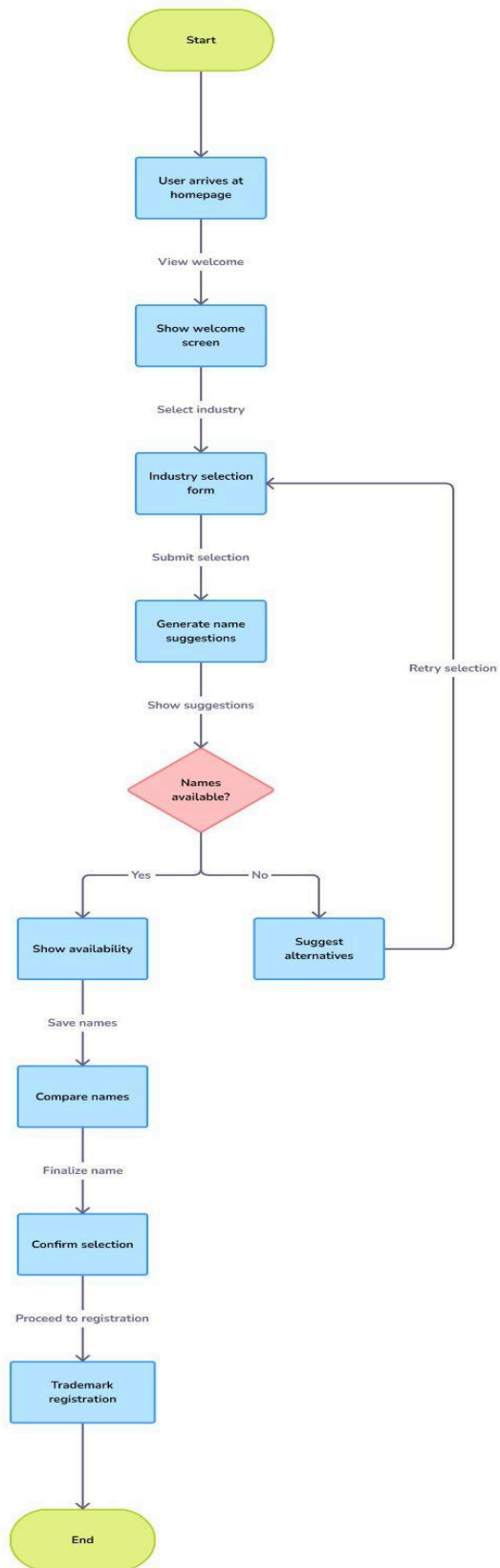
- If proceeding to trademark registration:
  - Smooth handoff to Trademarkia's trademark filing process
  - Pre-filled information from the naming tool

## **10. Account Creation/Login (Optional)**

- Prompt to create account or login to save progress
- Option to continue as guest

## **11. Feedback and Follow-up**

- Brief survey on tool experience
- Option to receive updates or branding tips newsletter



## **5.2 Wireframes**

### **1. Welcome/Intro Screen**

- Clean, minimalist design with clear CTA
- Optional video tutorial in top corner

### **2. Business Details Input Form**

- Intuitive form with dropdown, text inputs, and sliders
- Progress indicator at the top

### **3. Name Suggestions List**

- Grid or list view of names with clear availability indicators
- Filtering and sorting options on the side

### **4. Name Comparison Page**

- Side-by-side view of selected names
- Detailed metrics for each name

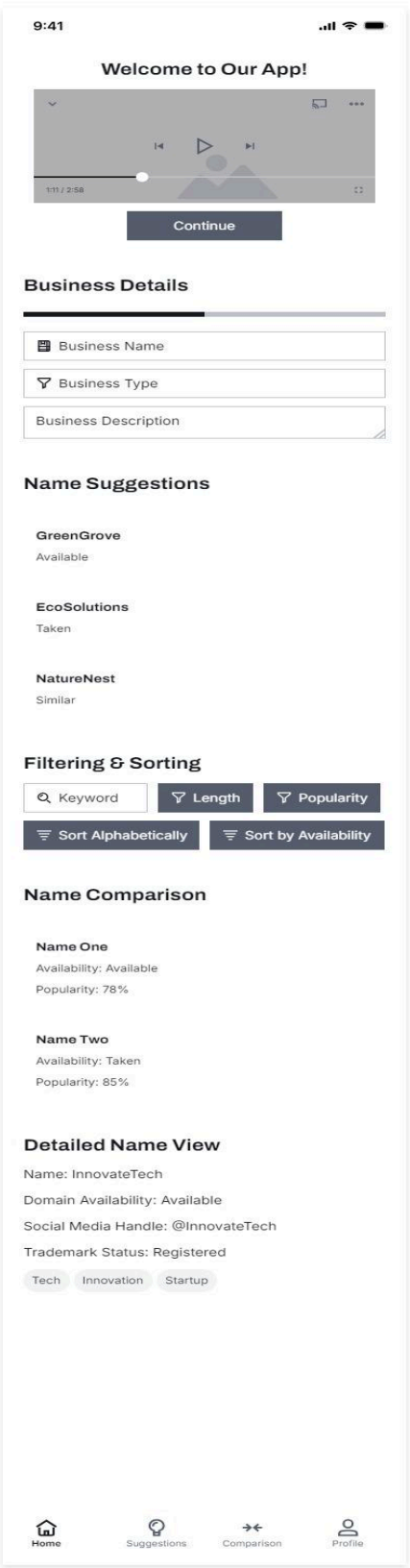
### **5. Detailed Name View**

- Central focus on the name with surrounding information panels
- Clear CTAs for next steps (register, save, explore more)

### **6. Transition to Trademark Registration**

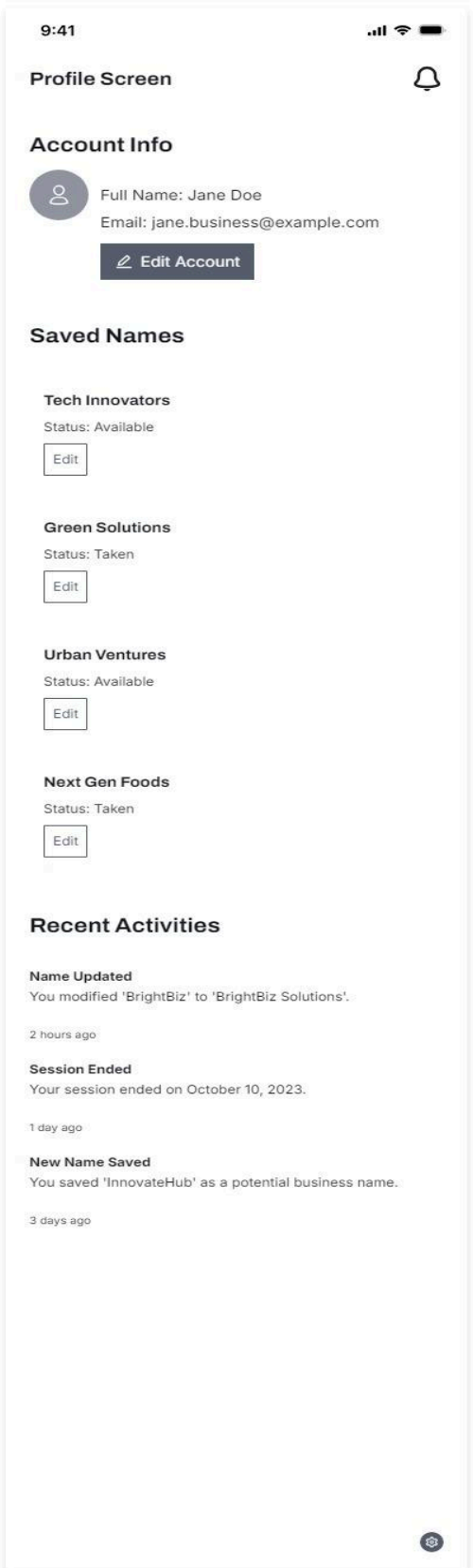
- Seamless UI transition from naming tool to Trademarkia's main service
- Summary of selected name and next steps

# App Design:

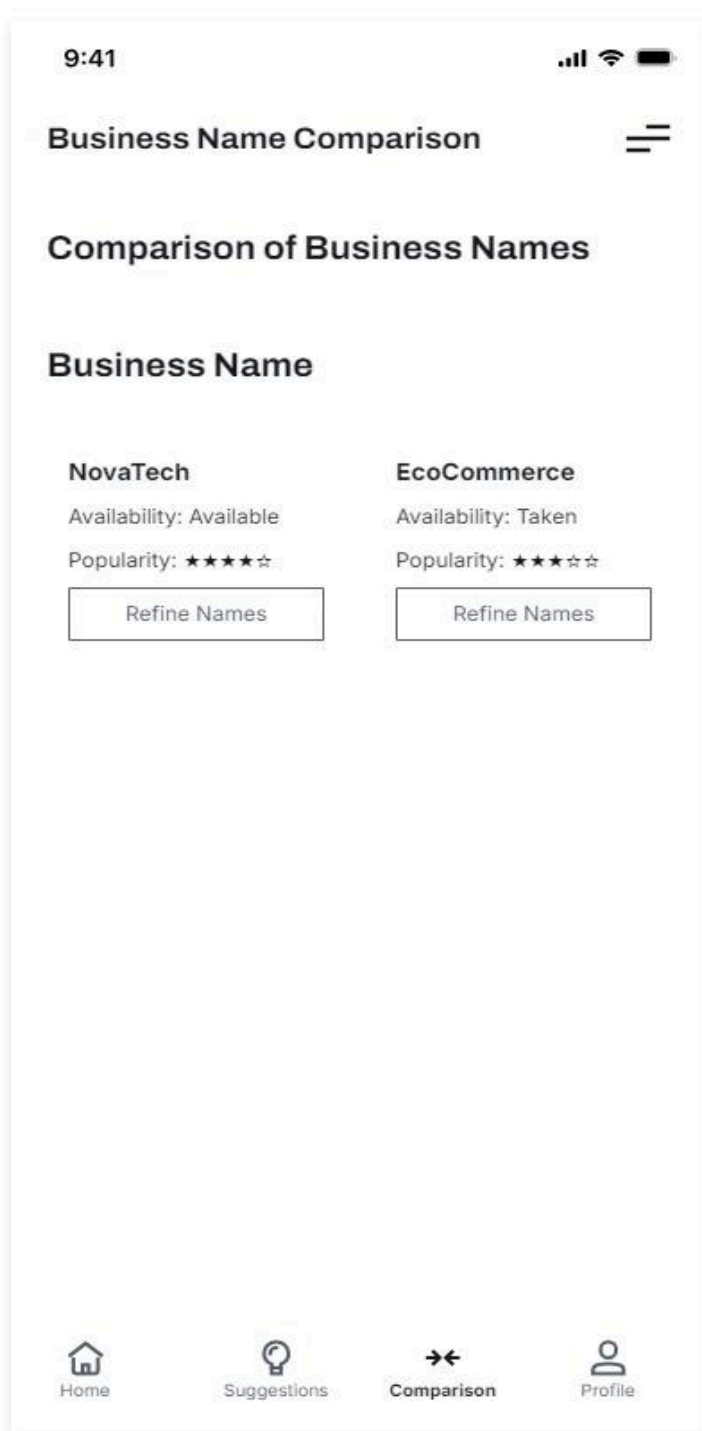




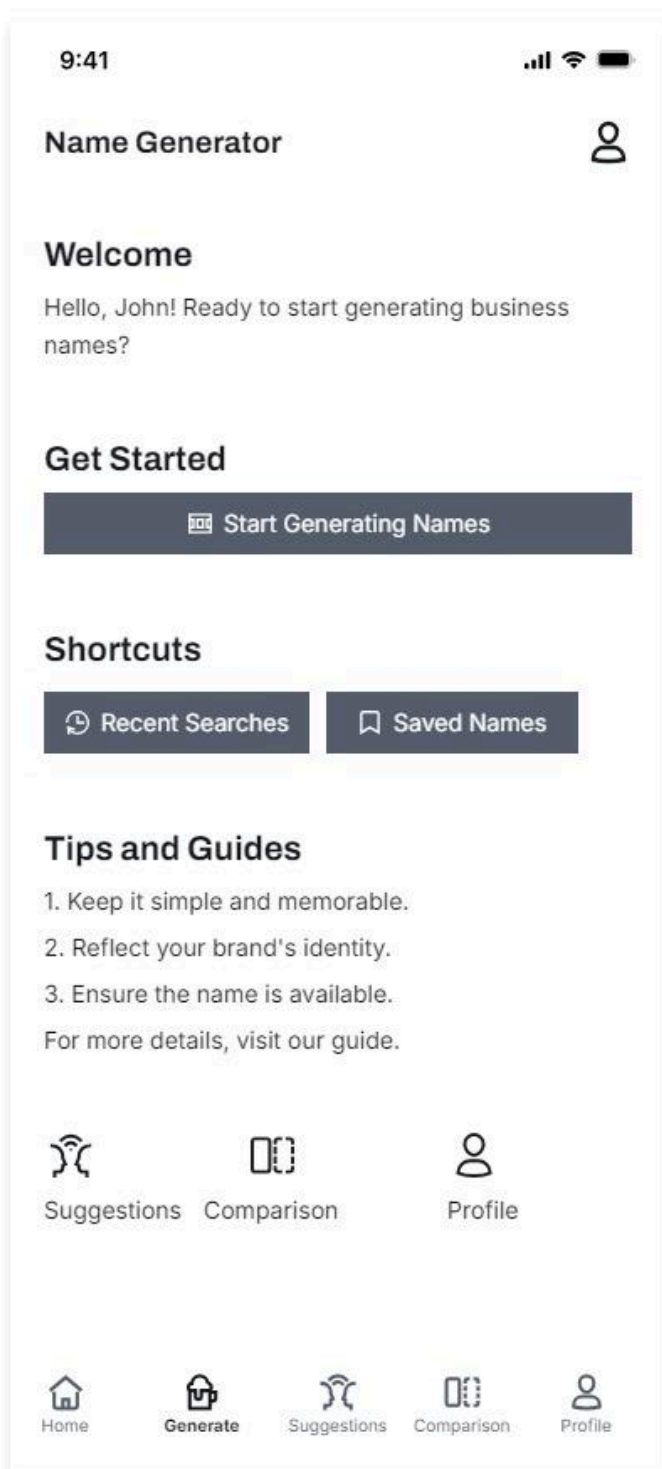
Profile Interface:



## Comparison Interface:



## Home Interface:



## 6. Technical Specifications

### 6.1 Technology Stack

#### Frontend:

- **Framework:** React.js with Next.js for server-side rendering and optimal performance
- **State Management:** Redux for complex state management
- **UI Components:** Material-UI for consistent, responsive design
- **Styling:** Styled-components for component-based styling
- **Data Visualization:** D3.js for any complex data visualizations or charts

#### Backend:

- **Primary Language:** Node.js with Express.js framework
- **API Architecture:** RESTful API design with GraphQL for complex data queries
- **Authentication:** JSON Web Tokens (JWT) for secure authentication

#### Database:

- **Primary Database:** MongoDB for flexible schema design and scalability
- **Caching Layer:** Redis for high-performance caching of frequent queries

#### AI/ML:

- **Framework:** TensorFlow.js for browser-based machine learning
- **NLP Model:** Custom-trained model based on GPT-3 or similar for name generation
- **Cloud AI Services:** Google Cloud AI or AWS SageMaker for more complex AI tasks

#### Cloud Infrastructure:

- **Primary Platform:** AWS (Amazon Web Services)

- **Compute:** AWS EC2 for application servers, AWS Lambda for serverless functions
- **Storage:** Amazon S3 for static assets and backups
- **CDN:** Amazon CloudFront for global content delivery

#### **DevOps:**

- **Containerization:** Docker for consistent development and deployment environments
- **Orchestration:** Kubernetes for container orchestration and scaling
- **CI/CD:** Jenkins or GitLab CI for automated testing and deployment
- **Monitoring:** ELK Stack (Elasticsearch, Logstash, Kibana) for log management and analysis

## **6.2 Integrations**

1. Trademarkia's existing trademark database
2. Domain registrar APIs (e.g., GoDaddy, Namecheap)
3. Social media platforms APIs for handle checks
4. Payment gateway for premium features or trademark filing

## **Scalability Considerations**

6. Implement serverless architecture using AWS Lambda for cost-effective scaling
7. Utilize Amazon ElastiCache for improved performance on repeated queries
8. Design with microservices architecture for easier scaling of individual components

## **Security Measures**

9. Implement OAuth 2.0 for secure authentication
10. Use HTTPS for all data transmissions
11. Regular security audits and penetration testing
12. Compliance with data protection regulations (GDPR, CCPA)

## **Performance Optimization**

13. Implement efficient caching strategies for frequently accessed data
14. Optimize database queries for faster retrieval of trademark information
15. Use content delivery networks (CDN) for static assets

## **7. Metrics & KPIs**

### **1. User Engagement**

Daily/Monthly Active Users (DAU/MAU)

Average session duration

Number of names generated per session

### **2. Conversion Metrics**

Conversion rate from tool usage to trademark filing

Percentage of users creating Trademarkia accounts

### **3. Business Impact**

Revenue attributed to tool-initiated trademark filings

Reduction in Customer Acquisition Cost (CAC)

### **4. Product Performance**

Name suggestion relevance score (user feedback)

System uptime and response time

Error rate in trademark availability checks

### **5. User Satisfaction**

Net Promoter Score (NPS)

User ratings and reviews

### **6. Market Penetration**

Market share in business name generation tools

Growth in new user segments

## 8. Product Strategy

### Go-to-Market Strategy

1. **Soft Launch:** Release to select Trademarkia customers for initial feedback
2. **Beta Program:** Invite small business associations and incubators to participate
3. **Full Launch:** Wide release with marketing campaign

### Marketing Channels

1. **Content Marketing:** Blog posts, infographics on naming best practices
2. **Email Marketing:** Introduce to existing Trademarkia users
3. **Social Media:** Targeted ads on LinkedIn, Instagram, Twitter
4. **Partnerships:** Collaborate with business formation services and startup platforms
5. **SEO Optimization:** Target keywords related to business naming and trademarks

### Leveraging Trademarkia's Assets

1. Utilize email list for direct marketing and beta testing invitations
2. Integrate tool prominently on Trademarkia's homepage
3. Offer exclusive features/discounts to existing Trademarkia customers

### Pricing Strategy

1. **Freemium model:** Basic name generation free, premium features for payment
2. Bundle with trademark filing services for discounted rate

## 9. Challenges & Risks

Challenge/Risk	Mitigation Strategy
AI accuracy in name generation	Continuous model training, user feedback loop
Integration complexity with existing systems	Phased approach, dedicated integration team
User adoption and trust	Transparent AI process, clear value proposition
Competitive response	Continuous innovation, focus on unique legal expertise
Scalability issues	Cloud-native architecture, load testing
Data privacy concerns	Strict data handling policies, user consent management
Trademark database accuracy	Regular updates, disclaimer on preliminary nature of checks



## **10. Timeline & Roadmap**

### **Phase 1: Planning and Design (2 months)**

1. Market research finalization
2. Detailed technical planning
3. UI/UX design

### **Phase 2: MVP Development (3 months)**

4. Core AI engine development
5. Basic UI implementation
6. Integration with trademark database

### **Phase 3: Beta Testing (2 months)**

7. Closed beta with select users
8. Feedback collection and iterations

### **Phase 4: Full Development (3 months)**

9. Feature completion
10. Performance optimization
11. Security audits

### **Phase 5: Launch Preparation (1 month)**

12. Marketing material preparation
13. User documentation

14. Final QA and testing

### **Phase 6: Go-Live and Iteration (Ongoing)**

15. Public launch

16. Continuous monitoring and improvements

17. Regular feature updates

### **Estimated Timeline:**

18. Project Start: November 1, 2024

19. Beta Launch: April 1, 2025

20. Full Public Launch: August 1, 2025