

Product Requirements Document (PRD)

California Experiences Discovery Platform

Document Information

- **Product Name:** California Experiences Discovery Platform
 - **Version:** 1.0
 - **Date:** December 2024
 - **Document Owner:** Product Team
 - **Stakeholders:** Development Team, Design Team, Marketing Team
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1. Executive Summary

1.1 Product Vision

Create a comprehensive, user-friendly platform that helps travelers discover and plan unique experiences across California, from popular tourist destinations to hidden gems, with intelligent date-based recommendations and special event detection.

1.2 Product Mission

To be the go-to platform for discovering authentic California experiences, making trip planning effortless through intelligent recommendations, comprehensive information, and seamless user experience.

1.3 Success Metrics

- User engagement: Average session duration > 5 minutes
- Conversion rate: > 15% of users click on experience links
- User satisfaction: > 4.5/5 rating

- Geographic coverage: 50+ California locations
 - Experience database: 500+ curated experiences
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2. Product Overview

2.1 Target Audience

Primary Users:

- Domestic and international tourists planning California trips
- Local residents seeking weekend getaways
- Travel bloggers and content creators
- Event planners and travel agents

Secondary Users:

- California tourism boards and local businesses
- Travel influencers and marketers

2.2 User Personas

Persona 1: Sarah, the Adventure Seeker

- 28-year-old solo traveler
- Loves outdoor activities and photography
- Plans trips 2-3 months in advance
- Values authentic, off-the-beaten-path experiences

Persona 2: The Johnson Family

- Parents with two children (ages 8 and 12)
- Plans family vacations during school breaks
- Needs family-friendly activities
- Budget-conscious but willing to pay for quality experiences

Persona 3: Mike, the Business Traveler

- 35-year-old frequent business traveler
 - Has limited free time during trips
 - Interested in local culture and food
 - Uses mobile devices extensively
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3. Core Features

3.1 Location Discovery & Search

3.1.1 Interactive California Map

Requirements:

- Visual map interface with clickable location pins
- Two interaction modes: dropdown search and map pin placement
- Real-time location suggestions with autocomplete
- Responsive design for mobile and desktop

User Stories:

- As a user, I want to click on a map to select my destination
- As a user, I want to search for locations with autocomplete suggestions

- As a user, I want to see visual feedback when I select a location

Acceptance Criteria:

- Map loads within 3 seconds
- Pin placement is accurate within 5% margin
- Autocomplete shows 5-10 relevant suggestions
- Works on all major browsers and devices

3.1.2 Location Database

Requirements:

- Support for 50+ California locations
- Include major cities, national parks, and hidden gems
- Categorized locations (coastal, mountain, desert, urban)
- Regular updates with new locations

Current Coverage:

- Major Cities: San Francisco, Los Angeles, San Diego
- Wine Country: Napa Valley, Sonoma
- Coastal: Monterey, Big Sur, Mendocino, Santa Cruz
- Desert: Palm Springs, Joshua Tree, Death Valley
- National Parks: Yosemite, Lake Tahoe
- Hidden Gems: Lost Coast, Channel Islands, Point Reyes

3.2 Experience Discovery

3.2.1 Experience Database

Requirements:

- 500+ curated experiences across California
- Detailed information for each experience:
 - Name and description
 - Duration and time recommendations
 - Pricing information
 - User ratings (4.0+ average)
 - Category classification
 - External links to official websites
 - High-quality images

Experience Categories:

- Nature & Outdoors
- Food & Wine
- Arts & Culture
- Entertainment & Attractions
- Adventure & Sports
- Wellness & Spa
- Historic & Landmarks
- Hidden Gems

3.2.2 Search & Filtering**Requirements:**

- Location-based search
- Category filtering
- Price range filtering
- Duration filtering
- Rating-based sorting
- Special event highlighting

User Stories:

- As a user, I want to find experiences in my chosen location
- As a user, I want to filter experiences by category
- As a user, I want to see experiences within my budget
- As a user, I want to sort experiences by rating

3.3 Date-Based Recommendations

3.3.1 Intelligent Planning

Requirements:

- Start and end date selection
- Duration-based recommendations (1-14 days)
- Seasonal activity suggestions
- Weather-appropriate recommendations
- Special event detection during stay

User Stories:

- As a user, I want to plan activities for specific dates

- As a user, I want to see special events during my stay
- As a user, I want recommendations based on my trip duration

3.3.2 Special Events Integration

Requirements:

- National holiday detection (July 4th, Christmas, Thanksgiving)
- Local event database (festivals, concerts, sports)
- Event-specific recommendations
- Real-time event updates

Current Events:

- Independence Day fireworks across California
- Christmas celebrations and activities
- Thanksgiving events and runs
- Local festivals (Comic-Con, Wine Festivals, Art Shows)

3.4 Visual Experience Presentation

3.4.1 Experience Cards

Requirements:

- Rich visual presentation with high-quality images
- Clear information hierarchy
- Category icons and color coding
- Rating display with star system
- Price and duration prominently displayed

- External link integration

Design Requirements:

- Consistent card layout
- Responsive grid system
- Hover effects and animations
- Accessibility compliance (WCAG 2.1)

3.4.2 Image Integration

Requirements:

- Unsplash API integration for dynamic images
- Local image fallback system
- Category-based default images
- Image optimization for performance
- Alt text for accessibility

3.5 Interactive Map Visualization

3.5.1 Experience Mapping

Requirements:

- Visual representation of experiences on map
- Color-coded pins by category
- Interactive pin hover effects
- Experience count display
- Legend with category explanations

Technical Requirements:

- Custom map implementation
- Pin positioning algorithm
- Responsive design
- Smooth animations

3.6 AI-Powered Chatbot Assistant**3.6.1 Travel Assistant****Requirements:**

- 24/7 availability
- Location-specific recommendations
- Experience type suggestions
- Travel tips and advice
- Weather and seasonal information
- Budget-friendly options

Conversation Capabilities:

- Greeting and introduction
- Location-specific guidance
- Experience type recommendations
- Travel planning assistance
- Help and support

User Stories:

- As a user, I want to ask questions about California experiences
 - As a user, I want to get personalized recommendations
 - As a user, I want travel tips and advice
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4. Technical Requirements

4.1 Frontend Architecture

Technology Stack:

- React 18 with TypeScript
- React Router for navigation
- Axios for API communication
- React Icons for UI elements
- CSS3 for styling

Performance Requirements:

- Page load time < 3 seconds
- Image optimization and lazy loading
- Responsive design for all devices
- Cross-browser compatibility

4.2 Backend Architecture

Technology Stack:

- Node.js with Express

- RESTful API design
- CORS support
- Static file serving

API Endpoints:

- `GET /api/locations` - Location database
- `GET /api/experiences/:location` - Location-specific experiences
- `GET /api/search?q=query` - Search functionality
- `GET /api/recommendations` - Date-based recommendations
- `GET /api/images/:query` - Unsplash image integration

4.3 Data Management

Experience Data Structure:

```
interface Experience {  
  id: number;  
  name: string;  
  duration: string;  
  price: string;  
  rating: number;  
  timeRecommendation: string;  
  description: string;  
  externalLink: string;  
  category: string;  
  location?: string;  
  latitude?: number;  
  longitude?: number;  
  imageUrl?: string;  
  date?: string;  
  eventType?: string;  
}
```

Data Sources:

- Curated experience database
- Special events calendar
- Unsplash API for images
- External website links

4.4 External Integrations

Unsplash API:

- Dynamic image search
 - California-specific queries
 - Fallback image system
 - Attribution compliance
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5. User Experience Requirements

5.1 User Interface Design

Design Principles:

- Clean, minimalist aesthetic
- Intuitive navigation
- Visual hierarchy
- Consistent branding
- Accessibility first

Color Scheme:

- Primary: California-inspired colors
- Secondary: Neutral grays and whites
- Accent: Highlight colors for special events
- Category-specific color coding

5.2 User Journey

Primary User Flow:

1. **Landing:** User arrives at homepage
2. **Location Selection:** User chooses destination via map or search
3. **Date Planning:** User selects travel dates (optional)
4. **Experience Discovery:** User browses curated experiences
5. **Information Gathering:** User clicks on experiences for details
6. **External Engagement:** User visits official websites

Secondary User Flow:

1. **Chatbot Interaction:** User asks questions via AI assistant
2. **Special Event Discovery:** User learns about events during stay
3. **Category Exploration:** User filters by interests

5.3 Responsive Design

Device Support:

- Desktop (1920px+)
- Tablet (768px - 1024px)
- Mobile (320px - 767px)

- Touch-friendly interactions

Breakpoint Strategy:

- Mobile-first approach
 - Flexible grid system
 - Optimized images for each device
 - Touch-optimized interface elements
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6. Performance & Quality Requirements

6.1 Performance Metrics

Load Times:

- Initial page load: < 3 seconds
- Image loading: < 2 seconds
- API responses: < 1 second
- Search results: < 500ms

User Experience:

- Smooth scrolling and animations
- Responsive interactions
- No layout shifts during loading
- Fast navigation between pages

6.2 Quality Assurance

Testing Requirements:

- Unit tests for core functionality
- Integration tests for API endpoints
- Cross-browser testing
- Mobile device testing
- Accessibility testing

Error Handling:

- Graceful fallbacks for API failures
- User-friendly error messages
- Image loading fallbacks
- Network error recovery

6.3 Security Requirements

Data Protection:

- Secure API endpoints
- Input validation
- XSS prevention
- CORS configuration
- Environment variable management

7. Content & Data Requirements

7.1 Experience Content

Content Quality Standards:

- Accurate and up-to-date information
- Engaging descriptions (50-150 words)
- High-quality images
- Verified external links
- Regular content updates

Content Categories:

- Tourist attractions
- Local experiences
- Outdoor activities
- Cultural experiences
- Food and dining
- Entertainment
- Wellness and relaxation

7.2 Special Events Content

Event Types:

- National holidays
- Local festivals
- Seasonal events
- Cultural celebrations
- Sports events
- Art and music festivals

Event Information:

- Event dates and times
- Location details
- Pricing information
- Special requirements
- Booking information

7.3 Image Requirements

Image Standards:

- High resolution (minimum 1200x800px)
 - Professional quality
 - California-specific content
 - Diverse representation
 - Optimized file sizes
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8. Future Enhancements

8.1 Phase 2 Features

User Accounts:

- User registration and profiles
- Favorite experiences
- Trip planning and itineraries
- Personal recommendations

- Review and rating system

Advanced Search:

- Multi-location trips
- Advanced filtering options
- Price comparison tools
- Duration-based planning
- Accessibility filters

Social Features:

- User reviews and ratings
- Experience sharing
- Trip photos and stories
- Community recommendations
- Social media integration

8.2 Phase 3 Features

Booking Integration:

- Direct booking capabilities
- Payment processing
- Reservation management
- Cancellation policies
- Booking confirmations

Mobile App:

- Native iOS and Android apps
- Offline functionality
- Push notifications
- Location-based alerts
- Augmented reality features

AI Enhancements:

- Personalized recommendations
 - Natural language search
 - Voice interaction
 - Predictive planning
 - Smart notifications
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9. Success Criteria & KPIs

9.1 User Engagement Metrics

- **Session Duration:** Average > 5 minutes
- **Page Views:** > 10 pages per session
- **Bounce Rate:** < 40%
- **Return Users:** > 30% within 30 days

9.2 Conversion Metrics

- **Experience Clicks:** > 15% of users click on experiences

- **External Link Clicks:** > 10% conversion rate
- **Date Selection:** > 20% of users use date-based planning
- **Chatbot Usage:** > 25% of users interact with chatbot

9.3 Content Performance

- **Experience Coverage:** 50+ locations, 500+ experiences
- **Image Quality:** > 90% of experiences have high-quality images
- **Content Accuracy:** > 95% of information is current
- **External Link Health:** > 98% of links are functional

9.4 Technical Performance

- **Page Load Speed:** < 3 seconds average
- **API Response Time:** < 1 second average
- **Uptime:** > 99.5% availability
- **Error Rate:** < 1% of requests

10. Implementation Timeline

10.1 Phase 1 (Current - MVP)

Duration: 3 months

Deliverables:

- Core location search functionality
- Basic experience database
- Interactive map interface

- Date-based recommendations
- Special events integration
- AI chatbot assistant
- Responsive web design

10.2 Phase 2 (Enhancement)

Duration: 2 months

Deliverables:

- User accounts and profiles
- Advanced search and filtering
- Review and rating system
- Enhanced content management
- Performance optimizations

10.3 Phase 3 (Advanced Features)

Duration: 3 months

Deliverables:

- Booking integration
- Mobile applications
- Advanced AI features
- Social features
- Analytics and insights

11. Risk Assessment & Mitigation

11.1 Technical Risks

Risk: API dependencies and rate limits

Mitigation: Implement fallback systems and caching

Risk: Image loading performance

Mitigation: Optimize images and implement lazy loading

Risk: Mobile compatibility issues

Mitigation: Extensive testing across devices and browsers

11.2 Content Risks

Risk: Outdated information

Mitigation: Regular content audits and update processes

Risk: Broken external links

Mitigation: Automated link checking and monitoring

Risk: Content quality consistency

Mitigation: Content guidelines and review processes

11.3 Business Risks

Risk: User adoption challenges

Mitigation: User research and iterative design improvements

Risk: Competition from established platforms

Mitigation: Focus on unique features and California expertise

Risk: Revenue model sustainability

Mitigation: Diversified monetization strategies

12. Conclusion

The California Experiences Discovery Platform represents a comprehensive solution for travelers seeking authentic California experiences. With its intelligent recommendation system, comprehensive content database, and user-friendly interface, the platform is positioned to become the leading resource for California travel planning.

The phased implementation approach ensures steady progress toward the vision while allowing for user feedback and market validation. The focus on quality content, performance, and user experience will drive long-term success and user satisfaction.

Next Steps:

1. Finalize technical architecture
 2. Begin Phase 1 development
 3. Establish content creation processes
 4. Plan user testing and feedback collection
 5. Prepare for launch and marketing activities
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Appendix A — MVP Cut & JIRA-Ready Backlog Snapshot

A1. MVP Scope (8 weeks)

- **Core:** Location search, experience feed (cards), basic filters, date range, special events badge, 1–2 data sources, Unsplash integration, Trip-less browsing, basic email capture for updates.
- **Tech:** React 18 + TS, Node/Express API, GA4, error logging (Sentry), image optimization, SSR/ISR for SEO.
- **Quality:** A11y AA pass, P95 TTI < 2.5s mobile.

A2. Epics → Sample User Stories → Acceptance Criteria

Epic 1: Location & Dates

- **US1:** As a user, I can search for a California destination with autocomplete.
 - **AC:** Top 5 relevant suggestions shown within 300ms; keyboard accessible; works offline with cached top cities.
- **US2:** As a user, I can set a start/end date to filter results.
 - **AC:** Only events within the range are displayed; empty state if < 6 items.

Epic 2: Experience Feed & Cards

- *US3*: As a user, I can browse a grid of experiences with image, price, duration, rating.
 - **AC**: 12+ results above the fold on desktop; cards lazy-load; CLS < 0.1.
- *US4*: As a user, I can open an experience detail to see when/where and click out.
 - **AC**: External links open in new tab with UTM tags; 404s display a friendly fallback.

Epic 3: Search & Filters

- *US5*: As a user, I can filter by category and budget.
 - **AC**: Applying filters updates results < 500ms; “Clear filters” restores prior state.

Epic 4: Special Events

- *US6*: As a user, I see a badge when my dates include a major holiday or festival.
 - **AC**: Badge appears on relevant cards; clicking shows a curated list.

Epic 5: Content & Images

- *US7*: As an editor, I can add/update experiences via a JSON schema.
 - **AC**: Schema validation rejects missing name/description/link; images optimized < 200KB avg.

Epic 6: Analytics & Feedback

- *US8*: As a PM, I can track onboarding_complete, card_view, outbound_click.
 - **AC**: Events fire once, with city/date params; GA4 dashboard template provided.
- *US9*: As a user, I can rate usefulness on a detail page.
 - **AC**: One-click vote, debounced, persists anonymously.

A3. Analytics Spec (GA4 Events & Params)

- **onboarding_complete** {city, start_date, end_date}
- **card_view** {item_id, category, city}
- **filter_apply** {category[], price_tier}
- **detail_open** {item_id}
- **outbound_click** {item_id, provider}
- **special_event_view** {event_type}
- **feedback_vote** {item_id, vote}

A4. Tech Checklist (Go/No-Go)

- SEO slugs: `/sf/experiences` and `/experiences/yosemite` render on server
- Image CDN + lazy-load in place
- 95th percentile latency < 800ms for `/api/experiences/:location`
- A11y audit passes (axe) with no critical issues

A5. Risks & Mitigations (MVP)

- **Sparse inventory** → seed evergreen collections per region
- **Event data drift** → nightly verifier + broken-link monitor
- **Performance regressions** → CI Lighthouse budget, fail build if > 2.5s TTI

A6. Out-of-Scope (MVP)

- Auth, reviews, payment, calendar export, deep itinerary builder, vendor portal