**Apex Webs - Product Requirements Document (PRD) v2.1**

*Updated with Domain Acquisition & Simplified MVP Strategy*

**1. Executive Summary**

**Company Overview**

Apex Webs is a Kenyan tech startup focused on providing comprehensive web solutions to businesses across Kenya. We aim to bridge the digital gap by offering innovative, user-centric web solutions that address critical business challenges in the Kenyan market.

**Product Vision**

Create a professional, conversion-focused company website that serves as the primary marketing channel, project showcase, and customer acquisition platform for Apex Webs' web services.

**MVP Strategy Update**

**Phase 1 MVP (Months 1-3)**: Launch with Vercel free tier, focusing on 3 core services and lead generation **Phase 2 MVP (Months 4-6)**: Scale with paid hosting, expand service offerings, and implement advanced features

**2. Company Identity**

**Mission Statement**

Provide innovative, user-centric web solutions that solve critical challenges for businesses in Kenya.

**Vision Statement**

Be the catalyst for digitally empowered, globally competitive Kenyan business environment.

**Rallying Call/Motto**

"Pamoja Tunaweza" - Together We Can

**Brand Values**

* Innovation in simplicity
* Local market understanding
* Affordable technology solutions
* Customer-centric approach
* Community empowerment

**3. Target Market & User Personas**

**Primary Target Market**

* Small to Medium Enterprises (SMEs) in Kenya
* Educational institutions (schools, colleges)
* Local businesses seeking digital transformation
* Startups requiring web presence and digital solutions

**User Personas**

**Persona 1: SME Business Owner**

* Demographics: 28-45 years, business owner/manager
* Pain Points: Limited digital presence, manual processes, lack of technical expertise
* Goals: Increase online visibility, streamline operations, reach more customers
* Tech Savviness: Moderate to low

**Persona 2: School Administrator**

* Demographics: 35-55 years, education sector
* Pain Points: Manual record keeping, communication challenges, fee management
* Goals: Digitize school operations, improve parent-teacher communication
* Tech Savviness: Low to moderate

**Persona 3: Startup Founder**

* Demographics: 25-40 years, tech-aware entrepreneur
* Pain Points: Limited budget, need for scalable solutions, time constraints
* Goals: Professional web presence, cost-effective solutions, quick deployment
* Tech Savviness: Moderate to high

**4. Product Objectives**

**Primary Objectives**

* **Lead Generation**: Generate 25+ qualified leads per month within 6 months
* **Brand Establishment**: Position Apex Webs as a trusted web solutions provider
* **Service Showcase**: Effectively demonstrate capabilities and past work
* **Customer Acquisition**: Convert 8% of website visitors to inquiries
* **Market Education**: Educate Kenyan businesses on digital transformation benefits

**Success Metrics (KPIs) - Updated for Vercel Free Tier**

* **Traffic**: 1,500+ monthly unique visitors by month 6
* **Conversion Rate**: 2-3% visitor-to-lead conversion
* **Engagement**: Average session duration >2.5 minutes
* **Bounce Rate**: <65%
* **Contact Form Submissions**: 10+ per week
* **Service Page Views**: 35% of total page views

**5. MVP Service Portfolio Strategy**

**Phase 1 Core Services (Months 1-3)**

**3 Core Services with Full Implementation:**

1. **Custom Web Applications**
   * Description: Bespoke web applications tailored to specific business needs
   * Target: SMEs, startups requiring unique functionality
   * Examples: Inventory management systems, customer portals, booking platforms
   * MVP Implementation: Full service page, case studies, contact integration
2. **Web Hosting & Security**
   * Description: Reliable hosting solutions with robust security measures
   * Target: All business types requiring online presence
   * Features: SSL certificates, regular backups, malware protection, 99.9% uptime
   * MVP Implementation: Service details, pricing tiers, security features
3. **API Integration Services**
   * Description: Integration with popular Kenyan payment and government systems
   * Key Integrations: M-PESA (Safaricom Daraja API), Banking APIs, Government systems
   * MVP Implementation: Service details, integration capabilities, contact forms

**Phase 1 Placeholder Services (Coming Soon Pages)**

**3 Services with "Coming Soon" Implementation:**

1. **Progressive Web Apps (PWAs)**
   * Status: Service page with detailed description + "Available in Phase 2" message
   * Implementation: Contact form for early interest registration
2. **SEO & Digital Marketing**
   * Status: Service overview + "Launching Q3 2025" message
   * Implementation: Newsletter signup for service launch notification
3. **Cybersecurity Solutions**
   * Status: Service description + "Enterprise solutions coming soon" message
   * Implementation: Contact form for enterprise inquiry

**6. Technical Architecture - MVP Strategy**

**Phase 1 MVP Stack (Vercel Free Tier)**

Frontend: Next.js 14 + React 18 + Tailwind CSS

Hosting: Vercel (Hobby/Free Tier)

Database: Vercel Postgres (pay-per-use)

Storage: Vercel KV (Redis-compatible, pay-per-use)

Authentication: NextAuth.js (if needed for admin)

Analytics: Google Analytics 4 + Vercel basic analytics

Email: Resend (3,000 emails/month free)

Error Tracking: Sentry (5,000 errors/month free)

Domain: apexwebs.co.ke ✅ ACQUIRED

SSL: Let's Encrypt (free via Vercel)

**Phase 2 Scale Stack (Months 4-6)**

Hosting: Vercel Pro ($20/month) or GCP migration

Database: Upgraded Postgres with higher limits

CDN: Cloudflare Pro (if not migrated to GCP)

Advanced Analytics: Vercel Pro analytics

Email: Upgraded Resend or dedicated email service

Monitoring: Upgraded Sentry + custom dashboards

CRM Integration: HubSpot or custom solution

Payment Processing: M-PESA integration for service payments

**MCP Servers Configuration**

**Phase 1 Essential MCP Servers:**

1. **File System MCP Server**: Handle project files, client uploads, content management
2. **SEO MCP Server**: Meta tags, sitemaps, keyword optimization
3. **GitHub MCP Server**: Version control, automated deployments
4. **Email MCP Server**: Contact form processing, automated responses
5. **Database MCP Server**: Contact forms, lead tracking, client communications

**7. MVP Implementation Strategy**

**Phase 1 MVP (Months 1-3) - Vercel Free Tier**

**Core Features to Implement:**

* ✅ Responsive website with all 6 service cards
* ✅ Functional contact form with email notifications
* ✅ Lead tracking and scoring with Vercel KV
* ✅ Google Analytics 4 integration
* ✅ SEO optimization for local keywords
* ✅ 3 core service detail pages
* ✅ "Coming soon" pages for 3 placeholder services
* ✅ Basic blog setup (3-5 articles)
* ✅ Professional email handling system

**Technical Limitations Accepted:**

* Limited to ~1,500 monthly visitors (bandwidth constraints)
* Basic analytics (no advanced demographics)
* Simple lead tracking (no advanced CRM)
* Manual processes for some admin tasks
* Limited email automation

**Workarounds Implemented:**

// Custom analytics tracking

const trackEvent = (event, data) => {

// Store in Vercel KV + send to GA4

analytics.track(event, data);

kv.lpush('events', { event, data, timestamp: Date.now() });

};

// Lead scoring system

const calculateLeadScore = (formData) => {

let score = 0;

if (formData.budget > 50000) score += 20;

if (formData.timeline === 'urgent') score += 15;

if (formData.company) score += 10;

if (formData.projectType === 'custom') score += 15;

return score;

};

// Email notification system

const sendLeadNotification = async (leadData) => {

// Send to team email

// Store in database

// Set up follow-up reminders

};

**Phase 2 Scale (Months 4-6)**

**Upgrade Triggers:**

* Monthly traffic approaching 80GB bandwidth
* Contact forms > 100/month
* Need for team collaboration
* Advanced analytics requirements
* Revenue justifies upgrade costs

**Phase 2 Enhancements:**

* ✅ Vercel Pro upgrade or GCP migration
* ✅ Advanced analytics and conversion tracking
* ✅ Full CRM integration
* ✅ Complete service portfolio launch
* ✅ Team collaboration features
* ✅ Advanced email automation
* ✅ A/B testing implementation
* ✅ Performance optimization
* ✅ M-PESA payment integration for services

**8. Lead Generation Strategy**

**Contact Form Implementation**

**Primary Contact Form Fields:**

const contactFormFields = {

name: { required: true, validation: 'text' },

email: { required: true, validation: 'email' },

company: { required: false, validation: 'text' },

phone: { required: true, validation: 'kenyan-phone' },

projectType: {

required: true,

options: ['website', 'web-app', 'hosting', 'api-integration', 'other']

},

budget: {

required: false,

options: ['<50k', '50k-200k', '200k-500k', '500k+']

},

timeline: {

required: false,

options: ['urgent', '1-month', '2-3-months', 'flexible']

},

message: { required: true, validation: 'text' }

};

**Lead Qualification Process:**

1. **Immediate Response**: Automated email within 5 minutes
2. **Lead Scoring**: Automatic calculation based on form data
3. **Team Notification**: Slack/email notification to team
4. **Follow-up Schedule**: 24-hour manual follow-up for high-score leads
5. **CRM Integration**: Store in Vercel KV with status tracking

**Response Time Goals**

* **Automated Response**: <5 minutes
* **Personal Follow-up**: <24 hours for high-priority leads
* **First Meeting**: Within 3-5 days of initial contact

**9. Security & Compliance Strategy**

**Legal Documents (Required for Launch)**

## Essential Legal Pages

- Privacy Policy: Kenya Data Protection Act compliant

- Terms of Service: Service agreements, liability, intellectual property

- Cookie Policy: Google Analytics and tracking compliance

**Security Implementation**

**Vercel Configuration:**

{

"headers": [

{

"source": "/(.\*)",

"headers": [

{"key": "X-Content-Type-Options", "value": "nosniff"},

{"key": "X-Frame-Options", "value": "DENY"},

{"key": "X-XSS-Protection", "value": "1; mode=block"},

{"key": "Strict-Transport-Security", "value": "max-age=31536000"},

{"key": "Referrer-Policy", "value": "strict-origin-when-cross-origin"}

]

}

]

}

**Form Security:**

* CSRF protection
* Rate limiting on submissions
* Input validation and sanitization
* Spam protection with hCaptcha

**10. Budget Analysis - Updated MVP Strategy**

**Phase 1 Monthly Costs (Free Tier Focus)**

Domain (.co.ke): ✅ ACQUIRED - apexwebs.co.ke

Vercel Hosting: $0 (Hobby tier)

Vercel KV Storage: ~KES 650/month (pay-per-use)

Vercel Postgres: ~KES 1,300/month (pay-per-use)

Resend Email: $0 (3,000 emails free)

Sentry: $0 (5,000 errors free)

Google Analytics: $0

Legal Templates: KES 3,250 one-time (~$25)

Total Monthly: ~KES 1,950 ($15)

Total Setup: ~KES 5,200 ($40)

**Phase 2 Scale Costs (Months 4-6)**

Vercel Pro: KES 2,600/month ($20)

Advanced Tools: KES 1,950/month ($15)

Marketing Budget: KES 19,500/month ($150)

Content Creation: KES 13,000/month ($100)

Total Monthly: ~KES 37,050 ($285)

**Cost Efficiency Analysis**

**Phase 1 ROI Projection:**

* Investment: KES 1,950/month
* Target: 10 leads/week = 40 leads/month
* Cost per lead: KES 49 (~$0.38)
* If 5% convert at avg KES 150,000: KES 300,000 revenue potential
* ROI: 15,300% (theoretical maximum)

**11. Risk Mitigation - Updated**

**Technical Risks - Phase 1**

**Risk**: Vercel free tier limitations **Mitigation**:

* Monitor usage via Vercel dashboard
* Implement caching strategies
* Optimize images and assets
* Plan upgrade triggers

**Risk**: Form submission failures **Mitigation**:

* Multiple form validation layers
* Backup email system
* Error logging with Sentry
* Manual form backup process

**Business Risks - Phase 1**

**Risk**: Low lead quality **Mitigation**:

* Implement comprehensive lead scoring
* Qualify leads through detailed forms
* Quick response time to show professionalism
* Clear service descriptions to attract right clients

**Risk**: Competition from established players **Mitigation**:

* Focus on personalized service
* Highlight local market knowledge
* Competitive pricing transparency
* Strong portfolio development

**12. Success Metrics & KPIs - Updated**

**Phase 1 KPIs (Vercel Free Tier Optimized)**

Traffic Metrics:

- Monthly unique visitors: 1,500+ (realistic for bandwidth)

- Page views per session: 3.5+

- Session duration: 2.5+ minutes

- Bounce rate: <65%

Conversion Metrics:

- Contact form submissions: 10+ per week

- Qualified leads: 6+ per week

- Service inquiry rate: 3% of visitors

- Email newsletter signups: 15+ per week

Business Metrics:

- Lead quality score: 15+ average

- Response time: <24 hours during business hours

- Client meeting conversion: 25%+ of qualified leads

- Revenue pipeline: KES 300,000+ monthly potential

**Phase 2 Scale KPIs**

Traffic Metrics:

- Monthly unique visitors: 3,000+

- Advanced demographics tracking

- User journey optimization

- A/B testing implementation

Business Metrics:

- Conversion rate optimization: 4-6%

- Advanced lead scoring: 20+ average

- CRM integration metrics

- Team productivity tracking

**13. Implementation Timeline - Updated**

**Phase 1 MVP (Months 1-3)**

**Month 1: Foundation & Development**

* Week 1: ✅ Domain acquired (apexwebs.co.ke), development environment setup
* Week 2: Core website structure, contact form implementation
* Week 3: Service pages development, legal documents
* Week 4: Testing, SEO setup, content creation

**Month 2: Launch & Optimization**

* Week 1: Soft launch, internal testing, bug fixes
* Week 2: Public launch, initial marketing, analytics setup
* Week 3-4: Content creation, lead tracking optimization, user feedback

**Month 3: Growth & Analysis**

* Week 1-2: Performance analysis, conversion optimization
* Week 3-4: Content expansion, lead nurturing, Phase 2 planning

**Phase 2 Scale (Months 4-6)**

**Month 4: Platform Enhancement**

* Week 1-2: Usage analysis, upgrade decision
* Week 3-4: Platform migration (if needed), advanced features

**Month 5-6: Full Service Launch**

* M-PESA payment integration
* Complete service portfolio launch
* Advanced analytics implementation
* Team scaling and process optimization

**14. Competitive Advantage**

**Unique Value Propositions**

1. **Local Market Focus**: Deep understanding of Kenyan business needs
2. **Transparent Communication**: Clear pricing, honest timelines, regular updates
3. **Rapid Response**: <24 hour response time to all inquiries
4. **Quality Portfolio**: Focus on delivering exceptional work to build reputation
5. **Affordable Expertise**: Professional solutions at SME-friendly rates

**Market Positioning**

* **Premium Quality, Fair Pricing**: Professional solutions without premium markup
* **Local Expertise, Global Standards**: International best practices, local implementation
* **Customer Success Focus**: Long-term partnerships over one-time transactions

**15. Next Steps & Action Items - Updated**

**Immediate Actions (Week 1-2)**

* [x] Domain acquisition: apexwebs.co.ke ✅ COMPLETED
* [ ] Vercel account setup and GitHub integration
* [ ] Legal document preparation (Privacy Policy, Terms)
* [ ] Google Analytics 4 setup
* [ ] Sentry account and error tracking setup
* [ ] Contact form and email system architecture

**Development Sprint (Week 3-4)**

* [ ] Next.js 14 project initialization
* [ ] Homepage development with all 6 service cards
* [ ] Contact form with Vercel KV integration
* [ ] Email notification system with Resend
* [ ] Lead scoring and tracking implementation
* [ ] SEO optimization and meta tags

**Pre-Launch (Week 5-6)**

* [ ] Content creation for all service pages
* [ ] Blog setup with initial articles
* [ ] Security headers configuration
* [ ] Performance optimization
* [ ] Mobile responsiveness testing
* [ ] Form submission testing across devices

**Launch Week (Week 7)**

* [ ] Production deployment to apexwebs.co.ke
* [ ] DNS configuration
* [ ] Lead generation system testing
* [ ] Analytics verification
* [ ] Soft launch to network
* [ ] Feedback collection and iteration

**16. Conclusion**

This updated PRD reflects the acquisition of apexwebs.co.ke domain and removes the consultation fee complexity, focusing on a cleaner lead generation approach. The streamlined MVP strategy allows for:

1. **Faster Time to Market**: Simpler implementation without payment processing
2. **Lower Costs**: Reduced monthly expenses (KES 1,950 vs KES 2,366)
3. **Better Focus**: Concentration on lead quality and conversion
4. **Scalability**: Clear path to add payment processing in Phase 2

The removal of upfront consultation fees positions Apex Webs as more accessible to potential clients while focusing on converting leads through professional service delivery rather than payment barriers.

**Success Metrics Focused**: Targeting quality lead generation with 10+ weekly submissions and 25%+ meeting conversion rates.

**Pamoja Tunaweza** - Together, we can build a sustainable, profitable web solutions business that serves the Kenyan market effectively through excellent service and strong client relationships.

**Document Version**: 2.1  
**Last Updated**: July 2025  
**Domain**: apexwebs.co.ke ✅ ACQUIRED  
**MVP Strategy**: Simplified Lead Generation + Vercel Free Tier  
**Review Schedule**: Weekly during Phase 1, bi-weekly during Phase 2  
**Success Criteria**: Consistent lead generation within 60 days, revenue generation within 120 days