

## AI Digital Marketing Head - SaaS Platform Challenge

### PROBLEM OVERVIEW

#### The Challenge

Modern digital marketing agencies and businesses struggle with fragmented workflows, manual processes, and the complexity of managing multiple AI tools across different marketing tasks. Teams waste countless hours switching between platforms, manually analyzing data, and creating strategies without intelligent automation.

**Your mission:** Build an AI-powered SaaS platform that revolutionizes how marketing teams work by providing intelligent automation, unified workflows, and AI orchestration capabilities.

### PROBLEM STATEMENT

#### Current State (Pain Points)

1. **Fragmented Tool Ecosystem:** Marketing teams use 15+ different tools for analytics, content creation, social media, and reporting
2. **Manual Strategy Creation:** Marketing strategies are created manually without AI assistance or data-driven insights
3. **No AI Integration:** Teams can't easily integrate their preferred AI models (GPT-4, Claude, etc.) into workflows
4. **Time-Consuming Audits:** Website SEO and social media audits take days to complete manually
5. **Inefficient Team Collaboration:** No centralized platform for task management and performance tracking
6. **Generic Content:** Content creation lacks personalization and brand voice consistency
7. **Poor Reporting:** Monthly reports are created manually and lack actionable insights

## Desired Future State

An intelligent SaaS platform where marketing agencies can:

- **Automate comprehensive audits** of websites and social media accounts
- **Generate AI-powered strategies** with actionable tasks and timelines
- **Create consistent content** using brand-specific AI models
- **Track team performance** and project progress in real-time
- **Connect any AI model** (BYOM - Bring Your Own Model) for different tasks
- **Generate automated reports** with month-over-month comparisons

## WHAT YOU NEED TO BUILD

### Core MVP Features (Must Have)

#### 1. Multi-Tenant SaaS Platform

- User authentication and agency/client management
- Role-based access control (Admin, Manager, Team Member)
- Basic tenant isolation and data security

#### 2. Automated Audit Engine

- Website technical SEO analysis (broken links, page speed, mobile-friendliness)
- Social media account performance analysis
- Competitor research and insights
- Integration with Google Analytics and Search Console

#### 3. AI Strategy Generator

- AI-powered monthly marketing strategy creation
- Task generation with priorities and effort estimates
- Content calendar creation (30-day plan)

- RAG (Retrieval Augmented Generation) for context-aware recommendations

#### **4. BYOM Integration**

- Allow users to connect their AI models (OpenAI, Anthropic, local models)
- Model selection for different tasks (strategy, content, analysis)
- Usage tracking and cost estimation

#### **5. Content Generation**

- AI-powered blog post and social media content creation
- SEO optimization suggestions
- Brand voice consistency
- Multiple content variations for A/B testing

#### **Advanced Features (Bonus Points)**

#### **6. Team Collaboration**

- Task assignment and tracking (Kanban board)
- Team performance analytics
- Real-time collaboration features

#### **7. Automated Reporting**

- PDF report generation with insights
- Month-over-month comparison charts
- Client-ready white-label reports

#### **8. Integrations**

- Social media platforms (Facebook, Instagram, LinkedIn)
- Content management systems (WordPress)
- Project management tools (Asana, Trello)

## TECHNICAL REQUIREMENTS

### Technology Stack Suggestions

**Frontend:** React.js/Next.js, Vue.js, or Angular

**Backend:** Node.js, Python (FastAPI/Django), or PHP

**Database:** PostgreSQL, MongoDB, or MySQL

**AI Integration:** OpenAI API, Hugging Face, LangChain

**Vector Database:** Pinecone, Weaviate, or Qdrant (for RAG)

**Cloud:** AWS, GCP, or Azure

**Authentication:** Auth0, Firebase Auth, or JWT

### Architecture Requirements

- **Multi-tenant architecture** with proper data isolation
- **Microservices or modular monolith** design
- **API-first development** with proper documentation
- **Real-time features** using WebSockets or Server-Sent Events
- **Scalable design** supporting multiple concurrent users

## EVALUATION CRITERIA

### Technical Excellence (30%)

- Code quality, architecture, and scalability
- Proper implementation of multi-tenancy
- AI integration and BYOM functionality
- Database design and API structure

### Innovation & AI Implementation (25%)

- Creative use of AI technologies
- RAG implementation for context-aware generation

- Novel approaches to marketing automation
- BYOM integration sophistication

### **User Experience (20%)**

- Intuitive interface design
- Onboarding and user flow
- Mobile responsiveness
- Accessibility considerations

### **Business Impact (15%)**

- Real-world applicability
- Market potential and scalability
- Value proposition clarity
- Revenue model feasibility

### **Completeness & Demo (10%)**

- Feature completeness within time limit
- Quality of presentation and demo
- Documentation and code comments
- Deployment and live demo

### **Submission Requirements**

- **GitHub Repository:** Complete source code with documentation
- **Live Demo:** Deployed application with sample data
- **Presentation:** 10-minute pitch deck with technical demo
- **Documentation:** Architecture overview and setup instructions

## SUCCESS METRICS

Your solution will be considered successful if it demonstrates:

1. **Functional multi-tenant SaaS platform** with user authentication
2. **Working AI integrations** that generate meaningful marketing insights
3. **BYOM capability** allowing users to connect external AI models
4. **Automated audit functionality** for websites or social media
5. **Clean, intuitive user interface** with good user experience
6. **Scalable architecture** that can handle multiple users
7. **Proper data security** and tenant isolation

## IMPORTANT NOTES

### Judging Process

- **Initial Screening:** Technical functionality and feature completeness
- **Live Demo:** 10-minute presentation followed by 5-minute Q&A
- **Code Review:** Architecture, code quality, and innovation assessment
- **Final Deliberation:** Judges select winners based on evaluation criteria

### Submission Guidelines

- All code must be original work created during the event
- Use of provided APIs, libraries, and frameworks is encouraged
- Teams must be able to demonstrate their solution live
- Code repositories must be public and well-documented

### Mentorship Available

- **Industry Experts:** Available for architecture and business guidance
- **Design Mentors:** UI/UX professionals for interface guidance

## TEAM FORMATION TIPS

### Ideal Team Composition

- **Full-Stack Developer:** Backend APIs and database design
- **Frontend Developer:** React/Vue.js UI development
- **AI/ML Engineer:** AI integration and RAG implementation
- **Designer:** UI/UX design and user experience

**Ready to revolutionize digital marketing with AI? Let's build the future of marketing automation!**