**Website AI Chatbot - Digital Media Sapiens**

**Project Overview**

A sophisticated web-based chatbot integration that provides instant customer engagement on the Digital Media Sapiens website. Built with custom HTML/CSS/JavaScript frontend connected to n8n backend workflow, designed to capture and qualify website visitors for discovery call bookings.

**Technical Architecture**

**Frontend Components**

**1. Chat Widget Interface**

· **Purpose**: Floating chat button and modal window for website integration

· **Functionality**:

o Responsive design with mobile optimisation

o Custom DMS branding with company colours (#bb2426)

o Smooth animations and professional UI/UX

· **Features**: Auto-expanding textarea, typing indicators, link detection

**2. Session Management System**

· **Purpose**: Maintains conversation continuity and user identification

· **Functionality**: Generates unique session IDs for each website visitor

· **Format**: web\_[timestamp]\_[random] for platform identification

· **Benefits**: Enables conversation tracking and platform-specific handling

**3. Dynamic Initialisation Engine**

· **Purpose**: Fetches welcome messages dynamically from n8n workflow

· **Functionality**: Sends \_\_CHAT\_INIT\_\_ trigger to load personalized greetings

· **Advantage**: No hardcoded content, fully maintainable through reference sheets

· **Fallback**: Graceful degradation if backend unavailable

**Backend n8n Workflow Nodes**

**1. Webhook Trigger Node**

· **Purpose**: Receives messages from website chat widget

· **Functionality**: Processes both initialisation triggers and user messages

· **Data Structure**: Handles {message, sessionId, platform} format

· **Platform Detection**: Identifies website visitors vs. WhatsApp users

**2. Google Sheets (Reference Data) Node**

· **Purpose**: Loads conversational templates and business logic

· **Functionality**: Same reference system as WhatsApp bot for consistency

· **Content**: Greetings, questions, qualification rules, company information

· **Efficiency**: Single load per session maintains token economy

**3. AI Agent Node with Platform Logic**

· **Purpose**: Intelligent conversation management with website-specific handling

· **Functionality**:

o Detects \_\_CHAT\_INIT\_\_ for dynamic welcome messages

o Adapts flow for website visitors (includes mobile number collection)

o Applies same qualification logic as WhatsApp bot

o Platform-aware formatting and response selection

· **Integration**: Seamlessly works with existing reference sheet system

**4. Google Sheets (Lead Logging) Node**

· **Purpose**: Records website visitor interactions and qualifications

· **Functionality**: Captures additional website-specific data points

· **Integration**: Unified lead database across all platforms

· **Analytics**: Tracks website conversion rates and engagement metrics

**5. Response Handler Node**

· **Purpose**: Formats responses for web delivery

· **Functionality**: Returns JSON responses to the frontend chat widget

· **Format**: {reply: "message content"} structure

· **Error Handling**: Provides fallback responses for system failures

**Workflow Process**

**Phase 1: Website Engagement**

1. **Visitor Arrival**: User visits Digital Media Sapiens website

2. **Chat Availability**: Floating chat button visible in bottom-right corner

3. **Engagement Decision**: User clicks chat button to open the widget

4. **Dynamic Welcome**: System sends \_\_CHAT\_INIT\_\_ to fetch personalized greeting

5. **Instant Response**: AI delivers a contextually appropriate welcome message

**Phase 2: Information Discovery**

1. **Name Collection**: Gathers visitor's name for personalisation

2. **Business Inquiry**: Identifies visitor's business type and industry

3. **Mobile Collection**: Requests contact number for follow-up capabilities

4. **Goal Assessment**: Understands visitor's business objectives and challenges

5. **Service Matching**: Determines relevant DMS services (SEO, social media, web development)

**Phase 3: Qualification & Conversion**

1. **Budget Discussion**: Naturally introduces marketing budget conversation

2. **Qualification Logic**: Evaluates against 5,000 AED minimum threshold

3. **Timeline Assessment**: Determines project urgency and start timeline

4. **Booking Direction**:

o **Qualified Leads**: Direct calendar link for discovery call booking

o **Unqualified Visitors**: Polite education about service levels

5. **Data Capture**: Complete lead profile logged for sales team follow-up

**Key Features**

**Seamless Website Integration**

· **Zero-Impact Installation**: Single HTML embed with no dependencies

· **Brand Consistency**: Matches DMS website design and colour scheme

· **Mobile Responsive**: Optimised experience across all devices

· **Performance Optimised**: Minimal load impact on website speed

**Advanced User Experience**

· **Instant Engagement**: Welcome message appears within 500ms

· **Natural Conversation**: Adapts to formal/informal communication styles

· **Visual Feedback**: Typing indicators and smooth message animations

· **Smart Input**: Auto-expanding textarea with keyboard shortcuts

· **Link Intelligence**: Automatically formats and opens URLs

**Technical Excellence**

· **Session Persistence**: Maintains conversation state throughout interaction

· **Error Recovery**: Graceful handling of network issues or API failures

· **Cross-Browser Compatibility**: Works across all modern browsers

· **Security**: Secure HTTPS communication with n8n backend

· **Analytics Ready**: Session tracking for conversation insights

**Business Intelligence**

· **Lead Attribution**: Tracks website source and visitor behaviour

· **Conversion Tracking**: Monitors chat-to-booking conversion rates

· **Quality Metrics**: Measures response times and user satisfaction

· **Sales Integration**: Structured data format for CRM systems

**Innovation Highlights**

**Dynamic Content Architecture**

· **Reference Sheet Integration**: All content sourced from maintainable Google Sheets

· **No Hardcoded Messages**: Complete flexibility for marketing team updates

· **A/B Testing Ready**: Multiple greeting and response options available

· **Boss-Friendly Maintenance**: Non-technical team members can update content

**Platform-Intelligent Design**

· **Unified Backend**: Same AI logic serves both the website and WhatsApp

· **Platform Adaptation**: Automatically adjusts conversation flow by source

· **Consistent Branding**: Jennifer's persona is maintained across all touchpoints

· **Data Unification**: Single lead database regardless of contact method

**Advanced Conversation Management**

· **Context Awareness**: Remembers conversation history within session

· **Smart Recovery**: Handles unclear responses without conversation failure

· **Progressive Disclosure**: Reveals information needs naturally over time

· **Graceful Completion**: Smooth transition from chat to booking system

**Technical Specifications**

· **Frontend**: Vanilla HTML/CSS/JavaScript (no framework dependencies)

· **Backend**: n8n workflow automation platform

· **AI Engine**: Gemini-powered conversational agent

· **Data Storage**: Google Sheets for reference data and lead logging

· **Communication**: RESTful API via secure webhook

· **Session Management**: Client-side unique ID generation

· **Error Handling**: Multiple fallback layers for reliability

· **Performance**: < 2-second average response time

· **Security**: HTTPS encryption and data validation

**Business Impact**

· **24/7 Lead Capture**: Engages website visitors outside business hours

· **Qualification Efficiency**: Pre-screens prospects before sales contact

· **Conversion Optimisation**: Reduces friction in discovery call booking process

· **Cost Effectiveness**: Automated lead qualification saves manual effort

· **Brand Enhancement**: Professional chat experience improves website perception

· **Analytics Insight**: Detailed conversation data informs marketing strategy

· **Sales Pipeline**: High-quality leads delivered with complete context

· **Global Reach**: Serves international visitors across time zones

**Integration Benefits**

· **Unified Customer Journey**: Seamless experience from website to booking

· **Cross-Platform Consistency**: Same Jennifer persona across WhatsApp and website

· Centralised **Management**: Single reference sheet system for all platforms

· **Scalable Architecture**: Easy expansion to additional channels

· **Maintainable System**: Non-technical updates are possible through Google Sheets

· **Analytics Consolidation**: Unified reporting across all customer touchpoints