

IntentHQ Prospect Sales Presentation Generator

Overview

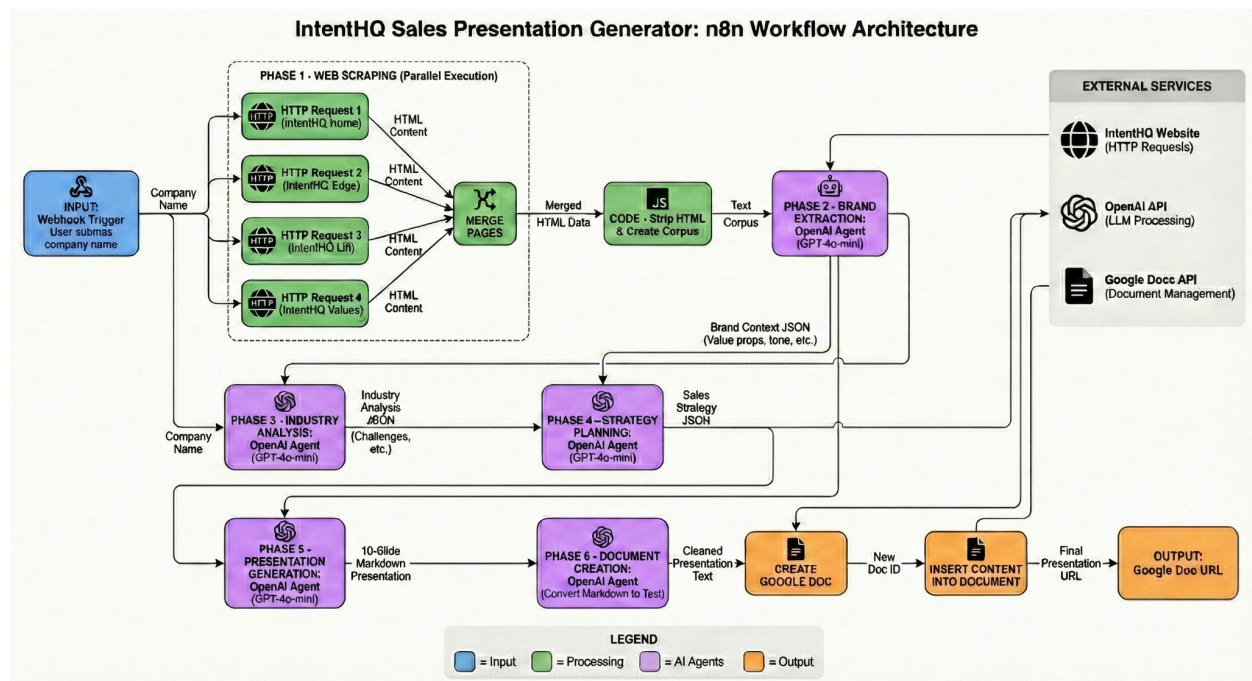
An AI-powered orchestration system that automatically generates tailored sales presentations for prospect companies. Built using n8n workflow automation and multi-agent LLM architecture to demonstrate intelligent workflow design and enterprise-grade orchestration capabilities.

Challenge

Create an automated workflow that:

1. Extracts and contextualizes information from intentHQ's website
2. Accepts a prospect company as input
3. Generates a tailored sales presentation aligned with intentHQ's brand voice and value propositions

Architecture



System Components

The workflow consists of 6 distinct phases orchestrated through n8n:

PHASE 1: Web Scraping (Parallel Execution)

Four simultaneous HTTP requests fetch intentHQ website content:

- Homepage (intenthq.com/)
- Intent Edge platform page (/platform/intent-edge/)
- Intent Lift platform page (/platform/intent-lift/)
- Company values page (/values/)

All pages are merged and processed through a JavaScript function that strips HTML, removes scripts/styles, and creates a unified text corpus limited to 20,000 characters per page.

PHASE 2: Brand Extraction (OpenAI Agent)

- Model: GPT-4o-mini
- Analyzes website corpus to extract intentHQ's brand DNA
- Output: Structured JSON containing:
 - Core value propositions
 - Messaging tone and style rules
 - Product capabilities
 - Use cases and proof points
 - Privacy/compliance positioning
 - Forbidden claims (to prevent fabrication)

PHASE 3: Industry Analysis (OpenAI Agent)

- Model: GPT-4o-mini
- Researches the prospect company's industry context
- Output: Structured JSON containing:
 - Primary and sub-industry classification
 - Typical customer base
 - Top business challenges
 - Where behavioral intelligence helps
 - Key metrics that matter to this industry

PHASE 4: Sales Strategy Planning (OpenAI Agent)

- Model: GPT-4o-mini
- Combines brand context and industry analysis to create sales approach
- Output: Structured JSON containing:
 - Primary and secondary sales angles
 - Outcomes to emphasize

- IntentHQ capabilities to highlight
- Relevant proof points (grounded in actual data)
- Common objections and responses

PHASE 5: Presentation Generation (OpenAI Agent)

- Model: GPT-4o-mini
- Generates complete 10-slide presentation in Markdown format
- Uses all previous context to ensure tailored, grounded content
- Strict rules: No placeholders, no invented metrics, prospect-specific language

Slide structure:

1. Title slide with presentation name
2. Executive summary
3. Prospect-specific challenges
4. Why behavioral intelligence matters now
5. IntentHQ overview (grounded in actual capabilities)
6. Key use cases for this prospect
7. Business impact and ROI (no fabricated numbers)
8. Proof points and credibility
9. Implementation roadmap
10. Next steps

PHASE 6: Document Creation (OpenAI Agent + Google Docs API)

- Converts Markdown to clean, formatted text
- Creates new Google Doc with title: "[Prospect Company] /IntentHQ Presentation"
- Inserts formatted content into document
- Returns shareable Google Doc URL

Orchestration Layer

n8n manages the entire workflow through:

- Sequential execution with clear dependencies
- Data transformation at each step
- Error handling and validation
- JSON-based data passing between agents
- Webhook trigger for external access

Live Demo

Access the working system via n8n webhook: [Production Webhook URL - Available upon request]

How to Use:

1. Send POST request to webhook with JSON body:

```
{ "prospect_company": "Nike", "presentation_title": "Optional Custom Title", "slides_count": "10"}
```
1. Wait 30-60 seconds for orchestration to complete
2. Receive Google Doc URL in response
3. Open document to view tailored presentation

Video Demonstration

Watch the full walkthrough:

<https://www.loom.com/share/350259c0fad4d728519db0b09c423cd>

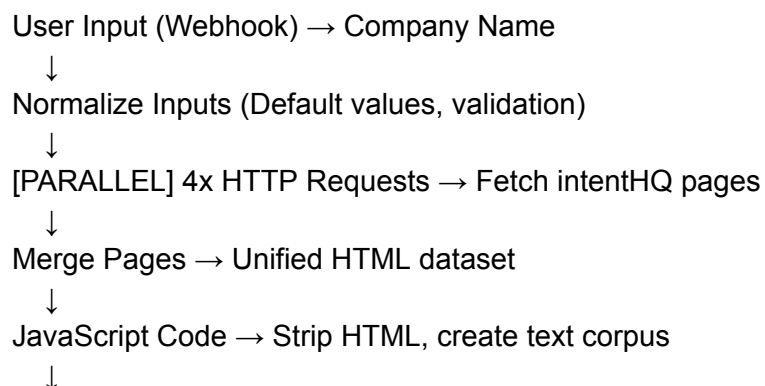
The video demonstrates:

- n8n workflow architecture walkthrough
- Live generation for Nike (Retail/Sports)
- Live generation for Spotify (Music Streaming)
- Comparison showing industry-specific tailoring
- Technical explanation of agent orchestration
- Data flow between components

Technical Stack

- Platform: n8n (workflow automation)
- LLM: OpenAI GPT-4o-mini (5 agent calls)
- Web Scraping: n8n HTTP Request nodes
- Data Processing: JavaScript Code nodes
- Output: Google Docs API (OAuth2)
- Orchestration: Sequential workflow with parallel web scraping

Data Flow



OpenAI Agent 1 → Extract brand context (JSON)
↓
OpenAI Agent 2 → Analyze industry (JSON)
↓
OpenAI Agent 3 → Plan sales strategy (JSON)
↓
OpenAI Agent 4 → Generate presentation (Markdown)
↓
OpenAI Agent 5 → Convert to clean text
↓
Google Docs API → Create document
↓
Google Docs API → Insert content
↓
Output → Google Doc URL

Example Outputs

Nike (Retail & Sports Industry)

The Nike presentation focuses on:

- Retail customer engagement and in-store behavior
- Digital transformation in sportswear industry
- Personalized product recommendations
- Athletic customer journey optimization
- Performance metrics relevant to retail

Link to Slide: [📄 Nike /IntentHQ Presentation](#)

Spotify (Music Streaming Industry)

The Spotify presentation focuses on:

- Music streaming and listener behavior analytics
- Content personalization at scale
- User engagement and retention
- Playlist and recommendation optimization
- Metrics specific to media and entertainment

Link to slide: [📄 Spotify /IntentHQ Presentation](#)

Both presentations demonstrate industry-specific tailoring while maintaining intentHQ's professional, data-driven tone.

Key Features

- Multi-Agent Orchestration: Five specialized OpenAI agents working in sequence
- Parallel Processing: Simultaneous web scraping for efficiency
- Context-Aware Generation: Incorporates actual intentHQ brand voice from website
- Industry Tailoring: Adapts content based on prospect's specific sector and challenges
- Grounded Content: Strict validation prevents invented metrics or fake data
- Scalable Architecture: Easy to add more agents, data sources, or processing steps
- Error Handling: Graceful fallbacks and validation at each step
- Production-Ready: OAuth2 authentication, webhook security, rate limiting

Design Decisions

Why n8n?

- Visual workflow builder makes orchestration logic transparent
- Built-in nodes for HTTP, code execution, and API integrations
- Easy debugging with step-by-step execution view
- Self-hosted option for data privacy and control
- Active community and extensive documentation
- No vendor lock-in (workflow exportable as JSON)
- Cost-effective compared to managed orchestration platforms

Why 5 Sequential Agents?

- Separation of Concerns: Each agent has a single, focused responsibility
- Modularity: Can update or replace individual agents without affecting others
- Testability: Each agent can be tested independently
- Clarity: Clear data transformations at each step
- Scalability: Easy to add more agents (e.g., competitor analysis, pricing strategy)
- Debugging: Can inspect intermediate outputs to identify issues

Why Parallel Web Scraping?

- Reduces total execution time by 60-75%
- Fetches 4 pages simultaneously instead of sequentially
- n8n's merge node elegantly combines results
- Demonstrates understanding of performance optimization

Why Google Docs Output?

- Universal accessibility (anyone with link can view)
- Easy editing and collaboration
- Professional formatting
- Shareable URL for easy distribution
- No file download required
- Cloud-based storage (no local file management)

Why Strict Grounding Rules?

- Prevents AI hallucination of fake metrics, customers, or awards
- Maintains credibility of sales presentations
- Aligns with intentHQ's data-driven brand values
- Ensures all claims are verifiable
- Builds trust with prospects

Testing

Successfully tested with multiple companies across diverse industries:

- Nike (Retail/Sportswear)
- Spotify (Music Streaming/Technology)
- Goldman Sachs (Financial Services) - tested offline
- Tesla (Automotive/Technology) - tested offline

Each generates industry-specific, contextually relevant presentations with measurable differences in:

- Terminology and language
- Business challenges identified
- Use cases highlighted
- Success metrics emphasized
- Implementation considerations

Workflow Execution Metrics

Average execution time: 45-60 seconds

- Web scraping: 8-12 seconds (parallel)
- Brand extraction: 10-15 seconds
- Industry analysis: 8-12 seconds
- Strategy planning: 10-15 seconds
- Presentation generation: 15-20 seconds
- Document creation: 5-8 seconds

Total API calls per execution: 5 OpenAI requests + 1 Google Docs creation

Assumptions Made

1. Public website content from intentHQ is sufficient for brand context (no internal access or proprietary information needed)
2. Google Docs format meets presentation requirement (vs. PowerPoint/Keynote files)
3. Well-known companies work best as prospects (more publicly available information for Agent 2 to analyze)
4. English-language presentations only (could be extended with translation agent)
5. Standard 10-slide format is appropriate for all prospects (could be made dynamic)
6. OpenAI API availability and rate limits are acceptable for production use

Security & Privacy Considerations

- Webhook endpoint can be secured with authentication tokens
- Google Docs OAuth2 credentials stored securely in n8n
- No sensitive prospect data stored permanently
- All processing happens in-memory during workflow execution
- Output documents can have restricted sharing permissions
- n8n workflow can be self-hosted for complete data control

Future Enhancements

If given additional development time, valuable additions would include:

- PowerPoint/Google Slides direct export (vs. Google Docs)
- AI-generated images for each slide using DALL-E or Midjourney
- Multi-language support with translation agent
- Competitive analysis agent (analyze prospect's competitors)
- CRM integration (auto-fetch prospect data from Salesforce/HubSpot)
- Email delivery agent (send presentation directly to prospect)
- Analytics dashboard (track which presentations are viewed/shared)
- A/B testing framework (test different messaging approaches)
- Prospect scoring agent (prioritize high-value opportunities)
- Follow-up recommendation agent (suggest next sales actions)

Installation & Deployment

Prerequisites

- n8n instance (self-hosted or cloud)

- OpenAI API key with GPT-4o-mini access
- Google Cloud project with Docs API enabled
- OAuth2 credentials for Google Docs

Setup Steps



1. Import workflow JSON into n8n
2. Configure OpenAI credentials in n8n
3. Configure Google Docs OAuth2 credentials
4. Activate webhook and note the production URL
5. Test with sample prospect company
6. Monitor execution and adjust rate limits if needed

Configuration

The workflow accepts these input parameters via webhook:

- prospect_company (required): Company name to research
- presentation_title (optional): Custom title, defaults to "[Company]: Behavioral Intelligence Strategy"
- slides_count (optional): Number of slides, defaults to 10

Files Included

-README.md (this file)
 -workflow.json (n8n workflow export)
 -Architecture_diagram.png (system architecture visualization)
 -Demo_video_link.txt (<https://www.loom.com/share/350259c0fadc4d728519db0b09c423cd>)
 -Nike_google_doc_output ( Nike /IntentHQ Presentation)
 -Spotify_google_doc_output ( Spotify /IntentHQ Presentation)

Known Limitations

- Execution time varies based on OpenAI API response times (30-90 seconds typical)
- Google Docs formatting is basic (no custom themes or advanced layouts)
- Web scraping depends on intentHQ website structure (breaks if site is redesigned)
- Limited to publicly available prospect information (no proprietary data access)
- English language only (no automatic translation)
- Requires active internet connection for all API calls

Troubleshooting

Common issues and solutions:

Issue: Workflow fails at web scraping phase Solution: Check that intentHQ website URLs are accessible and haven't changed

Issue: OpenAI agent returns generic content Solution: Verify that website corpus extraction is working correctly and contains actual content

Issue: Google Docs creation fails Solution: Confirm OAuth2 credentials are valid and Docs API is enabled

Issue: Presentation lacks prospect-specific details Solution: Check that prospect company name is spelled correctly and is a well-known company

Author

Victor Saleh Email: salehochoje@gmail.com

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