



## I Project Idea

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# **Web DevTAS: AI-Enhanced WordPress Plugins**

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**Jan 19 2024**

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# Web DevTAS: AI-Enhanced WordPress Plugins

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A collaboration with ITAS students to develop a WordPress plugin profile named “Web Devtas”. This initiative will first roll out as a suite of WordPress plugins energized by OpenAI's GPT-4 technology. These plugins are crafted to enhance and make a range of content management tasks something that people enjoy and save time doing so.

The initial offering will contain the following plugins:

1. **Quick Customized Quizzes:** Generate customized and styled quizzes tailored to post content.
2. **Tone-Matching Images:** Generate and Insert images with various tones to precisely match the content and viewership. (Eg. Memes for humorous content, or animated for children)
3. **Humanized Summaries:** Create content summaries that are not robotic.
4. **YouTube Video Handling:** Generate outlines or summaries of YouTube videos by providing URLs or find and embed matching youtube videos within the content.

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# Needs Analysis:

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## Market Necessity:

**WordPress Dominance:** WordPress remains the top choice for content websites, known for its SEO friendliness and popularity.

**Demand for Efficiency:** Website owners are on the lookout for more automated, efficient content management solutions.

**Our Solution:** We provide a user-friendly, AI-powered suite of tools designed to fill this need.

## Competitive Benchmarking

**Limitations of Current Solutions:** Existing individual solutions often miss out on comprehensive AI and styling customization.

**Common Practices:** Site owners typically use basic plugins for custom posts and ChatGPT for content generation.

**Our Automated Suite:** Our offering stands out by being automated, highly customized, and integrating multiple utilities into a single, GPT-4 powered suite. This meets bloggers' basic requirements, adds advanced features, and ensures smooth integration.

## Competitive Benchmarking

**Seamless WordPress Integration:** Integrates with Advanced Custom Fields for a flawless WordPress experience.

**Bulk Processing Capability:** Offers efficient bulk processing features.  
**Continuous Updates:** Regularly updated with the latest AI advancements from OpenAI.

**Enhanced Interactivity:** Adds interactive elements like quizzes, which save time and improve user engagement. Site owners can easily modify these through a simple wizard.

# Technology Background and Feasibility

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Utilizes the following:

**OpenAI's GPT-4 API for content and image generation** - Digging deeper into concepts taught in ITAS-185.

**WordPress Framework** - Applying ITAS-182 PHP concepts as we go.

**Flask Framework API on NGINX** - For keeping the API offshore, ensuring easy central maintenance. Implementing a central control API can help students maintain plugins with minimal weekly effort, often as little as an hour, due to streamlined updates and reduced debugging time. This can also leave some endpoints for students to potentially develop into a freemium service, thereby providing an incentive for creating valuable plugins and encouraging creativity.

## Costs and Budget:

**OpenAI's API usage fee for testing purposes** - Clients must enter their own Open AI API key which can be entered on the plugin settings page to use this for now.

**Cloud hosting for our suite of services** - and the setup to process API requests associated with the WordPress development environment. [Here's a link](#) for the current plan we're looking to use.

2 GiB	1 vCPU	2,000 GiB	50 GiB	\$0.01786	\$12.00
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**We expect to not exceed a budget of \$200-** That is, in an extreme case including all testing API calls and hosting for 12 months after which, either the project self sustains or becomes deprecated.

# Teams, Timelines & Tasks

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## Team Requirements:

We estimate needing 3-4 members skilled in WordPress plugin development, UI/UX design, and API integration.

Member	Tasks and Responsibilities
1.	Specializes in UI/UX design and Graphics (Frontend).
2.	Handles setting up accounts (email, hosting, Cloudflare) and managing progress.
3.	Responsible for API connections and (backend) plugin development.
4.	Also focuses on API connections and (backend) plugin coding.

However, if there's only three members, then Member 2 may carry a significant portion of the workload. If no one volunteers for this role, an alternative arrangement could be: to only work on three plugins and follow:

**Member 1:** Develops **Plugin 1**

**Member 2:** Develops on **Plugin 2**

**Member 3:** Develops on **Plugin 3**

## Stakeholders:

**Sponsors:** VIU/ITAS.

**Clients:** WordPress site administrators and digital content managers.

**Users:** End-users who interact with the content on WordPress sites.

**Developers:** ITAS students responsible for the development, maintenance, and enhancement of the suite.

## Key Tasks and Milestones:

**Brand Identity:** Developing initial graphics, homepage for the site/or github page, TLD email and online presence for the devTas project with a mission statement. And also a technical plan of attack. Once we have this set up, that would be our initial milestone ~ First Milestones ~ *One Week*

**MVP:** Once we have 1 MVP of plugins ready, that would be our second milestone. At this point, we will know if to work on the quality of this single plugin and increase features and launch as single pieces or to build the complete suite, depending upon complexity and quality of the plugins. ~ Second Milestone

**Engagement:** We will build Youtube videos showing use cases and how to's for the plugins, Instagram posts, and reddit posts or find ways to spread our plugins. If we get a single active installation, that would be our final milestone that marks the start of the start of the end of the project.

## Division of Labour/Resources:

1. **Backend Dev 1:** Focuses on incorporating the GPT-4 API into WordPress plugins and gets the best accurate responses in JSON format.
2. **Backend Dev 2:** Focuses on reading those responses and building the WordPress plugin around it.
3. **Front Dev:** Designs and tests user interfaces, ensuring ease of use and accessibility.
4. **Binder:** Manages the whole process, looks for shortcomings and takes any actions to fix them, coordinating team to lead to the end goal.

# Risks & Requirements

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## Potential Limitations and Risks:

**API Dependency:** Changes in OpenAI's GPT-4 API policies or pricing could significantly impact the suite.

**Market Adaptability:** WordPress users' uptake of advanced AI tools will vary due to AI misinformation concerns, reluctance in adopting these plugins.

**Technical Challenges:** Achieving seamless integration and consistent performance within the diverse WordPress ecosystem is a significant technical challenge in itself. However, we anticipate that a larger portion of our time will be devoted to fine-tuning and refining OpenAI's API requests to achieve the desired responses, rather than on the construction of the plugins themselves.

## Requirements for a Successful Solution/Product:

**Intuitive Design:** Creation of user-friendly interfaces that are in harmony with the WordPress user experience.

**Efficient API Consumption:** Utilization of the GPT-4 API in a manner that is cost-sensitive, easy to use, and reliable.

**Seamless WordPress Integration:** Compatibility and ease-of-use across a variety of WordPress themes and hosting contexts.

**Automation:** As long as it takes less keystrokes and clicks for the clients to get the result they want - we will keep increasing our active installations count and build a loyal clientele.

**Maintenance:** All team members are to review support threads and issues weekly (to be determined, eg. Thursday). If a plugin goes longer than 60 days unattended, prospective adopters are expected to step down from their role of maintaining the plugin leaving it "up for adoption" to any ITAS student (or other). If a plugin remains inactive over the period of four months it will be labeled as stale and our WordPress profile will be emptied from it. However, we'll securely archiving the code hoping it will still be vitalized later by another student. Other ITAS students can access this profile to launch their own plugins and add them to their portfolio.



End . . .

[Build an AI Assistant with OpenAI: A Beginner's Guide to Advanced Automation:](#)

<https://www.semanticscholar.org/reader/ec210beb754177147f8f2712fcff175ade326e76> A Research Manifesto:  
Discusses the enhancement of business processes with AI, relevant for understanding how AI can optimize content management in WordPress (Dumas et al., 2022).

[OpenAI's python QuickStart \(tutorial/first look\):](#)

[A Beginner's Guide to WordPress Plugin Development \(Blog Post\):](#)

[Master WordPress Plugin Development: Tutorial & Tips \(Blog Post\):](#)

[WordPress Plugin Development for Beginners: A Complete Tutorial Playlist:](#)

*Thank you for reading this plan.*  
*Raj Singh*