    - [LINK] Run Scenario
        - Action/Workflow: User clicks, sets parameters (e.g., "increase software licenses by 15%"), and clicks "Run."
        - [AI ANALYSIS]: Sends the current budget and the new parameters to the AI modeling service (POST /api/ai/budget-scenario). The AI returns a new projected profit margin and variance, allowing the user to make a strategic decision before submitting the budget.
- [COMPONENT] Budget Categories Analysis
    - Backend Logic: [DATA DRAW] Compares Actual Spend (from Expenses table) to Planned Budget (from the Budget table) for each category. The Status (under/over budget) is calculated.
    - [LINK] Analyze Link (on Overspend)
        - Action/Workflow: User clicks to investigate an overspend.
        - Backend Logic: Launches a focused [AI ANALYSIS] report showing the root cause of the variance (e.g., "The overspend is due to three specific software renewals that were 20% higher than last year").

# PROPOSAL MANAGEMENT MODULE:

# Proposal Management Module (PMM) - Technical & Functional Blueprint

## 1. Module Overview & Navigation

The PMM is a centralized workspace for the creation, management, and archival of business development assets.

- Module Entry: Triggered via the "Proposals" link on the Global Dashboard.
- Global Assets: Each sub-tab (Proposals, Brochures, Interviews, Campaigns) connects to a centralized Vector Database (Pinecone/Weaviate). This allows AI to "read" historical PDFs and Word docs to maintain brand voice and technical accuracy.

# 2. Main Dashboard & Predictive Analytics

## 2.1 Dashboard KPI Engine (Backend: AI Inference Layer)

- Win Probability %: AI analyzes historical outcomes from the Accounts Module vs. current pursuit criteria to generate a likelihood score.
- Weighted Pipeline Value: Pulls "Value" from Opportunities and multiplies by "Win Prob %".
- Confidence Level: Measures data completeness (e.g., "Are all resumes and project sheets attached?").
- Pending Issues: Scans for unresolved comments or legal exceptions.

## 2.2 Priority & Resource Analytics

- Take Action Link: Deep-links directly to the "Detail/Refine" tab of the specific proposal.
- Resource Utilization (Resources Module Sync): Visualizes the bandwidth of technical writers and SMEs.
- Bottleneck Detection: AI identifies if the "Graphics Team" is the delay point across all active proposals based on task completion timestamps.

# 3. The AI Agent Ecosystem

A dedicated management layer for autonomous workflows.

- Agent Creator Link: Opens the `AgentFactory` interface.
- Agent Logic: Agents are persistent background processes using Large Action Models (LAMs).
    - Data Analysis Agent: Monitors Opportunities for RFP updates.
    - Report Generation Agent: Drafts weekly pursuit status for the Finance Module.
- Autonomy Levels:
    - *Low:* Agent drafts and waits for approval.
    - *Medium:* Agent sends emails but flags legal issues.
    - *High:* Agent manages the entire pre-proposal schedule and alerts team members of missed deadlines.

# 4. Proposal Creation Workflow (5-Step Pipeline)

**Upon selecting an Opportunity from the Pipeline Integration, the system instantiates a `ProposalObject` that inherits all Client/Opportunity metadata.**

## Tab 1: Upload (Data Ingestion)

- **Sourcing:**
  - ***Client Docs:* RFP/Addendums are parsed by AI to build the Compliance Matrix.**
  - ***Firm Docs:* Pulls high-res logos and templates from the Accounts Module.**
  - ***Competition:* Scans external databases for competitor team structures.**
- **Backend Activity: Files are passed through an OCR/Parsing engine (Gemini 2.5 Flash) to identify "Requirements" and "Deadlines."**

## Tab 2: Plan (Strategy & Design)

- **Summarized RFP Mind Map: A visual graph showing the hierarchy of requirements. Users can click a node to see the specific RFP paragraph.**
- **Proposal Management Plan (PMP): Automatically populates roles based on Resources Module availability (e.g., "Assigned Lead: John Doe - 20% available").**
- **AI Pursuit Strategy: Generates "Win Themes" by comparing the firm's "Success Stories" (Firm Docs) with the Client's "Evaluation Criteria" (Client Docs).**
- **Dynamic Org Chart Tool: Users provide a prompt ("Show a flat structure with 3 subs"); AI generates an SVG chart, pulling staff photos and titles from the Resources Module.**

## Tab 3: Detail/Refine (Content Generation)

- **Compliance Score: A real-time audit. If the RFP requires "Section 4.2: Sustainability," and it is missing, the score drops.**
- **AI Content Refinement: Users use prompts to "Rewrite for a more technical audience" or "Shorten by 200 words to meet page limits."**
- **Legal Review (Contract Exceptions): AI scans the uploaded Contract vs. the firm's "Standard Risk Profile" (Finance Module) and flags problematic clauses (e.g., Unlimited Liability).**

## Tab 4: Layout/Print (Finalization)

- **Formatting Compliance: AI checks margins, font sizes, and image resolution against RFP constraints.**
- **Print Configuration: Integrates with local printer drivers and defines binding specs (e.g., GBC, Perfect Bind).**

- **Export Engine: Converts the dynamic web-object into flattened PDF/Word formats.**

### Tab 5: Schedule (Time Management)

- **Pre-RFP vs. Post-RFP Logic:**
  - ***Pre-RFP:* Focuses on "Capture Management" (site visits, teaming agreements).**
  - ***Post-RFP:* Focuses on "Production" (Pink/Red Team reviews).**
- **Automated Deadlines: Assigns tasks to specific users. If a user is late, the AI Agent sends an automated notification via Messaging Integration (Slack/Teams).**

## 5. Endpoints & Module Interconnectivity

- **Start Point:** `GET /opportunities/pipeline` **-> Select Opportunity.**
- **Data Pulls:**
  - `GET /accounts/{id}/assets` **(Logos, project photos).**
  - `GET /resources/staff/search` **(Resumes, availability).**
- **End Point:**
  - `POST /finance/revenue/backlog` **(If Proposal = Won).**
  - `POST /accounts/{id}/history` **(Archives final PDF for future AI training).**

**When the user clicks on the proposal link from the welcome dashboard, a new page opens. This page includes 4 tabs at the top - Proposals, Brochures, Interviews, and campaigns. Each of these tabs will need to include storage for current and existing firm files to be uploaded so the system can review and produce similar documents or use the information to produce new documents. The page opens up with the proposal tab that includes 3 boxes at the top - Create new, Open on-going and open completed. These boxes also show the information of the number of proposals that are currently on-going or completed. The create new box is powered by AI to help create new content or generate information as needed. Below these three boxes is the AI Predictive analytics with 4 boxes as a dashboard. The first box includes the % of win probability for proposals submitted. The second box includes the weighted value of the pipeline, the third box includes the confidence level for completing the proposals and the fourth box includes the number of issues in the proposals that are**

pending and unresolved. Below the dashboard is a priority box that shows the proposal that is currently being developed and requiring immediate attention as a deadline has passed. The user can click on the take action link to provide the information on review the required information. Below the priority action box is the resource and timeline analytics that indicates the resource utilization %, average time to complete a proposal and the common bottlenecks between the technical writer, graphics team and subject matter experts in terms of %. At the top right of the page is a chatbot AI assistant to ask any questions on how to use this module or the system. Next to the chatbot AI assistant is a agent creator link that takes the user into a new page of an AI agent management system. This page has a dashboard at the top that show the number of agents active, the number of tasks the agents have completed, the total number of agents (this could be different for the active agents) and the last box showing any idle agents. There is a link to create new agents. Below are the boxes for each agent that was created. Each box shows the agent name, what modules they are connected to, their high level capabilities and their current tasks (eg: monitor account health, generate insights, send email, etc.). Each agent shows the tasks completed and when they were last active. There is also a pause and delete link for the user to make changes. The agent box also indicates if the agent is active or idle. Once the user clicks on the create agent link, a new window opens. This page includes a questionnaire for the user to complete that includes - agent name, type(dropdown menu - data analysis report generation, etc.), agent avatar, modules to connect, tasks, capabilities, autonomy level (low, medium, high) and a link below to create the agent.

Once the user clicks on the open completed proposals box, a new page opens up with a dashboard with 4 boxes at the top. The dashboard boxes include information on total completed proposals, win rate in %, total project weighted value of proposals and AI accuracy prediction. Below is a smart filter and sorting box for the user to search proposals by won, lost, value and accuracy. The user can sort also by completion date. Below are a list of proposals that show the date submitted, value and win probability for the user to click on and access the proposal.

When the user clicks on the open on-going proposals, the smart filter and sorting box is at the top that allows the user to pick proposals that are on-going. They can search by schedule, risk and value and also sort by due date, win probability and progress. Below is a list of active proposals that the user can click on and open the proposal sections. The list of on-going proposals include information on the name of the opportunity, the owner, the value of the pursuit, date due, and the risk level.

Once the user clicks on the create new box, a new page - opens - “create new proposal” with the option for the user to pick the opportunity from the pipeline. The user can find the opportunity from the search box or pick an opportunity if it is listed below. This opportunity may have informational documents linked to it that will be transferred to the proposal stage where more documents can be added and created in multiple categories for AI to use to generate content for the proposal. The opportunity is linked to the account information as well that shows up and is listed on the right side of the page and has information about the client that can be used in the proposal. Once an opportunity is selected, the user can click on the “continue to proposal development” at the bottom right side of the page.

The continue to proposal development link opens up a new page that has 5 tabs - Upload, Plan, Detail/Refine, Layout/Print and Schedule. At the top of the page is a one bar schedule showing proposal progress to track the progress through the proposal creation process. It shows the % complete on the right. As the page opens up in the upload tab, below are 6 boxes that support document uploads. The top three boxes are specific to the categories - client documents, firm documents and competition analysis. The next three boxes are different ways to upload the documents, links and data into the first three box categories.

The first box is the ‘Client Documents” box that includes the RFP (client, project specific) with contract terms, Addendums, Past RFP’s for similar services, Available public data, project location (google maps) client discussion notes and strategy, client logo, project site pictures, team pictures, award pictures and any other data that is client related. The second box is related to information regarding the firm. Specifically - company logo, past proposals to this client or proposals with similar scope and project type to other clients, project data for qualifications section, past awards, reference and quotes, graphics and design examples, text templates and specific information for specific sections in the rfp, proposal design styles and themes, success stories and lessons learned, team/individual pictures, completed project photos, technical documentation and any other related information. The third box is related to the competition analysis that includes uploading data for past competitor proposals, list of competitors for this opportunity, competitor staffing information and competitor resumes and past performance documents and any other related information.

For the last three upload boxes, the first box is to upload files by dropping or selecting files on your computer to upload or attach. The files would be uploaded and included in any of the 3 categories - client documents, firm documents or competition analysis. The second box is to include any links of websites that have relevant information to the 3 categories. The last box is to type or paste text related to the three categories that is not on a document or website.

At the top right of the page, there is an AI chatbot for any support on using the system. There is also a save link that the user will click to save all documents

**uploaded. This should also be an autosave feature so as not to lose any files just in case the user does not click on the save link.**

**The next tab - "Plan" includes 3 boxes at the top of the page - 1. Summarized RFP mind map, 2. Proposal management plan, and 3. Pursuit strategy.**

**The user can click on the link - view the mind map and a new page will open. The page will include a breakdown of the rfp information in a mind map format similar to the notebook LM version of mind map. This should be helpful for the user to decipher the information of the rfp and also search any information the user may be looking for. The second box is the proposal management plan that the user can click on the link - view plan. This link will open up a new page that shows all the information from the rfp in a planned format of a proposal management plan. The proposal management plan will include information in the following format:**

**PROPOSAL MANAGEMENT PLAN CONTENTS (not limited to):**

**RFP outline, proposal contents and details, firm lead, page limit, evaluation criteria, criteria, comments, client, submission date, job #, client copies submittal requirements, PM, pursuit lead, proposal coordinator, graphics/layout approver, page limit, questions due, all sections and who will provide information needed, identify and finalize subcontractors, teaming agreements, strategy, client notes, organization charts, staffing, resumes needed, contract exceptions, cost proposal, required forms, proposal schedule, etc.**

**The third box is the Pursuit Strategy that AI will generate after reviewing all documents uploaded for this specific proposal.**

**PURSUIT STRATEGY CONTENTS - any notes from client meetings or any other meetings including documents uploaded are reviewed by AI to generate a document in a format that includes value propositions, key points to address, items needed to enhance proposal, key points to include to specifically address criteria, etc. The user has the option to review and accept or modify, or add to the information and finalize.**

**Below is the Proposal design box that includes the option for the user to select design elements for the proposal theme and layout. The user may select from multiple colors (key colors and accents - option to select several colors). Next, the user may select the cover page layout among a classic, modern or minimalist layout or a combination of the layouts depending on content. The AI will review the proposal requirements and generate the number of tabs required which the user may revise. The user can also select the design of the tabs - standard, colored or minimalist and also has the option to upload images or a design to include on the tabs or use similar or a version of the graphical theme used on the cover page.**

Further below is the window for the configuration of each section and the details that go into it. The system will review and include the total page limit required. This may be revised if the RFP does not require any page limit. Below, AI will include a list of all sections of the proposal with the number of pages allocated for each of these sections and if this section is required per the rfp requirements or if this is additional data the firm is including that may be supplemental information. Each section will also have visual elements option for the user to select and include in this section, eg.: graphics, matrices, tables, flow charts, infographics, images, charts, etc. The user can include any of these visual elements by checking the box and the pages allocated for the section will automatically update. If the pages for the proposal exceeds the page limit, AI will provide options for the user to make a decision. There is also a staffing section that will include an option for the user to identify the type of org chart they want and select from several options or by giving prompts for AI to generate a particular org chart. The user also has the option to upload a type of org chart, or picture of an org chart or even a sketch for the AI to take and formalize. The user then can provide instructions for the AI to modify the org chart and also include information through prompts.

Further below is the layout and design options box for the user to select the overall layout patterns for each of the proposal sections or this can be for the overall proposal. This can be either a standard (1 column layout), 2 column or mixed layouts throughout the proposal. The user will also need to select the header and footer style from minimal, standard and branded options. AI will put together options that the user can choose and modify based on prompts. AI will generate these options from multiple past proposals and the clients requirements and website including the information in the rfp. The user will need to finalize.

The third tab - Detail/Refine allows the user to review and refine AI-generated content, ensure compliance, and optimize proposal sections. A box below provides the proposal compliance and score which is an overall proposal assessment based on rfp criteria. The score is displayed with a % with the number of sections that are compliant and the total number of sections needing attention. Below this box is the list of all sections showing the score for each section and if there are any specific issues with a section that needs to be corrected. The user will have to click on each of these boxes to get into a specific section to make any changes via prompts or to add or delete anything from that particular section.

Below is another box with the contract exceptions & legal review that provides the user all AI-identified contract issues and recommended exceptions after reviewing the contract that was uploaded in the prior tab. The list of contract exceptions are identified below with recommendations to change or accept. Items that have been accepted are also highlighted with a status of the comments included at the bottom.

The next tab is the Layout/Print tab that provides the user a review of the final layout, and to check formatting compliance, and prepare for printing or digital submission. This page again shows a box highlighting the proposal layout compliance with the total number of pages and how many of those are compliant. Again, if there are any issues with any sections, they will need to be corrected and it will be shown here. The user will need to go to the previous tab to correct if there are still any issues identified on this page within a section.

Further below is the page layout preview box that allows the user to review individual pages and select for printing. All the pages of the proposal are listed below in a small graphic and the user can pick a page or multiple pages for review and print if needed. The user can adjust the print configuration and configure printing options in the box below. The submission may be in a digital format or print format or both. The user will need to select the number of copies for print, select the printer and binding type and paper type. The user will also need to select if the proposal will be printed one side or double sided. The user may also export the entire proposal as a pdf, word document or another format. As the proposal can be started prior to the release of the rfp, the schedule tab will include a window for the user to select if the proposal is being constructed in the pre-rfp phase or post rfp phase.

The last tab - Schedule tab will have AI review the rfp and create a detailed calendar schedule that will be visible through this tab. All dates of when the rfp was issued, pre-proposal dates, when questions are due, proposal advancement stages - pink team/ red team/ final reviews, holidays, proposal submission date, print, etc. will be listed on this schedule. For the pre-proposal phase schedule, the schedule may list items like site visit, sub consultant selection, questions for the client, etc. Also, if there are any sections that are required by any individual that is providing this information, a deadline will be included on the schedule with the individual's name and section details. The schedule may be modified by the lead admin for the proposal and no one else. At the bottom of the page is the option for the user to export the schedule to pdf format and email team members and to also add milestones to the schedule. The schedule will be tracked in real time so that all can see what is due by when. The user may set up agents to conduct tasks in preparation of the proposal.

The objective of this module is for AI to analyze all the requirements of the rfp or rfq, analyze all the data available related to this project, analyze all the data available related to the firm, ask for any missing data and generate a strong proposal that meets all the requirements and scores highly against the criteria included (if any) in the rfp. The quality of the proposal and the graphics and content should be of high quality and should be as good or better than proposals generated in the past by the firm. This all should be flexible enough for the user to modify as needed through

**prompts so that the proposal can be customized while also staying in compliance with rfp requirements.**

**This process is designed as a guided, step-by-step wizard for the new firm's administrator, ensuring that foundational data is established in the correct order to unlock the platform's interconnected features effectively.**

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## New Firm Onboarding: Developer Logic & Workflow

**Onboarding Philosophy:**

**The goal is to guide the new client's administrator through a logical sequence of data input that minimizes friction and demonstrates value quickly. The system must enforce dependencies (e.g., a user must exist before they can be assigned as an Account Lead). The flow is structured around the "Tier 1" (Foundational) and "Tier 2" (AI Enhancement) data we previously identified.**

**Initial State: A new company account is created in the system by your sales/support team, which generates a primary administrator user account. An automated welcome email is sent to this administrator with a unique, single-use link to begin the setup wizard.**

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## Onboarding Wizard: Step-by-Step Logic

**Upon first login, the administrator is immediately routed to the setup wizard (`/onboarding/step1`) instead of the main dashboard. They cannot exit the wizard until the foundational steps are complete.**

**Step 1: Company & System Configuration**

- **Objective: Establish the firm's core identity and settings within the platform.**
- **User Interface (UI): A clean, simple form titled "Welcome! Let's set up your company profile."**
- **Data Input Method: Direct form entry for the following fields:**
    1. **`Company Name` (pre-populated, editable)**