Drupal Website Design for Patent Search

Project Overview

Each project represents a patent search task, progressing through multiple stages. The **Project Node** is structured using the Paragraph module, while **Patent Nodes** are separate content types.

Stage 1: Search Term Generation

Process:

1. User inputs a general description of a feature (textarea).
2. AI suggests **patent classifications** and **keywords** for search terms.
3. The search terms appear in a list with checkboxes, allowing users to uncheck irrelevant terms.
4. AI refines the selected terms, generating an optimized **search string**.
5. A button links to **Google Patents search results** using the search string.
6. Unlocks Stage 2.

Potential Risks & Suggestions:

- **AI Accuracy:** AI-generated terms might be inaccurate. Implement a feedback mechanism for users to refine AI suggestions.
- **Search Overload:** If too many terms are included, results may be ineffective. Allow users to manually edit search strings.
- **Dependency on Google Patents:** If Google changes its URL structure or API rules, the search feature might break. Consider a backup search option via WIPO or other sources.

Stage 2: Data Upload & Storage

Process:

1. User uploads an **Excel file** after reviewing search results.
2. The system extracts and stores **patent number, applicant's name, and summary** (max 20 records).
3. Automatically creates **patent nodes** row by row.
4. Duplicate patents (same patent number & username) are ignored.

Potential Risks & Suggestions:

- **Excel File Validation:** Users might upload corrupted or incorrect files. Implement file validation before processing.
- **Data Redundancy:** Without a deduplication system, multiple users may store the same patent. Consider a shared repository for commonly searched patents.
- **Node Creation Errors:** If a row has missing or invalid data, the system should provide clear error messages instead of skipping records silently.

Stage 3: Patent Review & Comments

Process:

1. A dropdown list displays patent numbers stored in the **increment field inside the Project Node** from Stage 2.
2. Users select a patent and enter comments in a corresponding text area.

Potential Risks & Suggestions:

- **Data Linking Issues:** The dropdown should dynamically update and prevent selection of deleted or outdated patents.
- **Comment Storage Format:** Structure comments properly (e.g., timestamped logs) for better retrieval and reporting.
- **User Experience:** If users have many patents to review, adding pagination or a search function to the dropdown could improve usability.

Stage 4: Finalization & Report Generation

Process:

1. A button closes the project and opens a view displaying the **patent search report.**
2. Users can set the report's visibility to **private (self-read only)** or **public.**

Potential Risks & Suggestions:

- **Permission Enforcement:** Ensure privacy settings are strictly applied to avoid unauthorized access.
- **Incomplete Reports:** Some patents may lack comments, leading to misleading reports. A status indicator (e.g., "Pending review") could help.
- **Reopening Projects:** Once a project is closed, can it be reopened for edits? If not, provide a way to duplicate or reset searches.