**Survey Tracking Web Application Requirements Document**

**Purpose:**

The primary goal of the Survey Tracking Web Application is to provide an intuitive and efficient system for managing and tracking survey questions, options, and their versions, enabling easier documentation, comparison, search, and analysis.

**Functional Requirements:**

**1. Survey Question Management**

* Users must be able to enter survey questions and their corresponding options one at a time.
* Users must be able to assign question numbers manually.
* The web app must store all questions and options in a structured backend database.
* Users must be able to edit existing questions and options.
* After entering questions, the system should prompt the user to confirm whether all intended questions have been added.

**2. Survey Version Management**

* Users must be able to create and store multiple versions of surveys.
* Users should have the option to label versions clearly (e.g., Version 1.0, Version 2.0, etc.).
* Each survey version should clearly show its creation date and last updated timestamp.

**3. Survey Comparison**

* Users should be able to select any two stored survey versions to compare.
* The web app should display differences side-by-side, highlighting:
  + Questions that have been added, removed, or modified.
  + Changes in question numbering.
  + Differences in options provided for each question.

**4. NLP-based Search**

* The web app must allow users to search questions or options within a single survey or across multiple surveys using natural language queries.
* Integration with an open-source Large Language Model (LLM) to interpret user search queries, ensuring context-aware and semantic searches.
* Search results should clearly display the matched survey questions, their versions, and highlight the relevant search keywords.

**5. Survey Deletion**

* Users should have the option to delete entire surveys after a confirmation prompt.
* The web app must log all deletions for audit purposes.

**Additional Suggested Features:**

**6. User Access and Permissions**

* Implementation of role-based access control (e.g., admin, editor, viewer).
* Admin roles should have comprehensive control, including user management.
* Editors can manage survey questions, options, and versions.
* Viewers have read-only access to surveys and comparisons.

**7. Audit and Change History**

* The system should maintain an audit log tracking:
  + Who made the change.
  + What changes were made.
  + Timestamp of each change.
* The audit log should be easily accessible for review.

**8. Export Capability**

* Users should be able to export surveys, comparisons, and search results to PDF and Excel formats for documentation purposes.

**9. Notification System**

* Users can opt-in for email notifications when significant changes or updates are made to surveys they follow or manage.

**10. Dashboard and Analytics**

* Provide a dashboard summarizing survey activities, most modified surveys, recent changes, and survey usage statistics.

**User Experience Requirements:**

* The application must be intuitive and user-friendly, ensuring minimal training required.
* Responsive design, accessible from desktops, tablets, and smartphones.

**Security and Compliance:**

* Adherence to Kaiser Permanente's data privacy and security standards.
* Regular security audits and compliance checks should be planned.

This comprehensive documentation aims to clearly outline the functionality and usability expected from the Survey Tracking Web Application, enhancing the overall survey management workflow.