**Sammati Project Documentation**

**Executive Summary**

The Sammati Proposal Approval Automation Solution was developed to address critical inefficiencies in the university's proposal submission and approval process. This documentation outlines the project journey from problem identification through initial design to the final implementation, highlighting key design decisions, feedback incorporation, and workflow improvements that were made throughout the development process.

**Project Statement**

**Context**

The university previously attempted to streamline its proposal approval process through Microsoft SharePoint and Power Automate integration. While this initial solution improved efficiency by reducing manual processing time by approximately 60% and eliminating paper-based workflow bottlenecks, a critical gap remained in the proposal submission interface. Due to which the initial solution was not able to implement.

**Challenge**

The existing Microsoft Forms-based submission mechanism offered limited customization capabilities, creating a significant disconnect between proposal requirements and submission formats. This limitation manifested in two critical ways:

1. **Proposer Experience**: Faculty and staff submitting proposals lacked clear guidance on the specific information required for different proposal types. This resulted in submissions that were incomplete, incorrectly formatted, or missing critical elements, causing unnecessary revisions and delays.
2. **Administrative Burden**: The Registrar's Office continually received inadequately prepared proposals that did not meet their specific information requirements. This necessitated additional communication cycles, manual intervention, and extended processing times, undermining the efficiency gains achieved through workflow automation.

**Problem Definition**

Despite the successful automation of approval workflows, the university lacked a dynamically customizable user interface that could adapt to the diverse and specific requirements of different proposal types. The static nature of the submission form created an information gap between proposers and administrators, resulting in process inefficiencies that impacted institutional agility and resource utilization.

The project aimed to address this critical limitation by developing an enhanced, proposal-type-specific interface that provides an intuitive, guided submission experience that ensures comprehensive data collection aligned with administrative requirements.

**Initial Design**

The initial design focused on creating a unified interface that would serve three primary user roles while differentiating the content displayed to each:

1. **Proposer**: Faculty or staff submitting proposals
2. **Reporting Authority**: Supervisors who review proposals before they proceed
3. **Registrar Office (RO)**: Administrators who manage the proposal approval process

The interface was organized into three main sections:

* **My Proposals**: For tracking proposals created by the user
* **Approval Requested**: For reviewing proposals that require action
* **All Proposals**: For viewing the complete history of proposals

Each proposal displayed key information including:

* Title
* Proposer
* Supervisor
* Type
* Status

The design included action buttons for:

* Viewing proposal details
* Accepting/rejecting proposals (for reviewers)
* Creating new proposals (for proposers)

The initial workflow was limited to three stages:

1. Proposal creation by the Proposer
2. Review by the Reporting Authority
3. Final review by the Registrar Office

**Feedback Received**

During user testing and stakeholder reviews, several key pieces of feedback were received:

1. **Proposal Editing**: Users requested the ability to edit proposals, particularly after receiving feedback but before final submission or resubmission.
2. **Requirement Visibility**: Proposers needed to clearly see the specific requirements for each proposal type to ensure complete submissions.
3. **Comments on Approvals/Rejections**: Reviewers needed to provide detailed reasoning when accepting or rejecting proposals to facilitate communication and improvements.
4. **Limited Workflow**: The initial three-stage workflow was insufficient for complex proposals that required input from multiple departments.
5. **UI Enhancement**: The original interface was functional but lacked visual appeal and intuitive navigation.

**Changes Implemented**

Based on the feedback received, significant changes were made to both the design and functionality of the Sammati system:

**Design Overhaul**

The entire user interface was redesigned using Lovable.ai to create a more modern, intuitive, and visually appealing experience. The new design features:

* Clean, minimalist layout with improved information hierarchy
* Improved navigation with clear tabs and buttons
* Card-based proposal display with essential information
* Consistent styling throughout the application

**Extended Workflow**

The workflow was expanded beyond the initial three-stage process to include (because it seems like possible thing to do and the initial was very simple):

1. Proposal creation by Proposers
2. Review by Supervisors
3. Assessment by Registrar Office
4. Review by multiple Approvers (e.g., finance department, sports department)
5. Final decision by the Registrar

This expansion allows for more comprehensive reviews from relevant stakeholders while maintaining process efficiency.

**Communication Features**

Two communication features were implemented:

1. **Mandatory Comments**: Reviewers must provide comments when accepting or rejecting proposals, ensuring clarity and transparency in decision-making.
2. **Conversation Thread**: A WhatsApp-like comment box allows ongoing conversation between proposers and reviewers throughout the proposal lifecycle, facilitating clarifications and updates without requiring formal resubmission.

**Administrative Controls**

A new "Manage Types" feature was added specifically for administrative users, allowing the Registrar Office to:

* Create and define different proposal types
* Specify required fields for each proposal type
* Customize the information collected for different proposals
* Set specific requirements that proposers must meet

**User-Specific Views**

Different interfaces were created for regular users (proposers, supervisors, approvers) and administrators (registrar office, registrar):

1. **User View**:
   * Focus on proposal creation and tracking
   * Limited to proposals relevant to their role
   * Simplified interface for common tasks
2. **Admin View**:
   * Includes proposal type management
   * Access to all proposals regardless of stage

**Data Validation**

Basic data validation was implemented to ensure required fields are completed before submission, though type-specific validation is still a Underconstruction.

**Features Not Fully Implemented**

Some planned features were not fully implemented in the current version:

1. **Proposal Editing**: While identified as a critical need, the editing functionality is still under development and not yet operational.
2. **SharePoint and Power Automate Integration**: The decision was made to develop Sammati as a standalone application rather than integrating with Microsoft solutions as initially planned.
3. **Notification System**: The current version does not include automatic notifications for status changes or assignments.
4. **Reporting and Analytics**: Features for tracking proposal metrics and generating reports have not been implemented.

**Technical Challenges and Solutions**

Throughout the development process, several technical challenges were encountered:

1. **Logic Implementation**: Developing the correct logic for the multi-stage approval process required multiple iterations and testing.
2. **Feature Conflicts**: Adding new features occasionally caused regression in existing functionality, requiring careful testing and debugging.
3. **Navigation Issues**: Changes to the application structure sometimes resulted in 404 errors, requiring path management adjustments.
4. **UI Consistency**: Maintaining a consistent user experience across different roles and views required careful planning and implementation.

These challenges were addressed through iterative development, extensive testing, and continuous refinement of the application architecture.

**Testing Approach**

Testing was conducted primarily through user-based testing, with project team members assuming different roles (proposer, supervisor, registrar office, etc.) to validate the workflow. This approach included:

* Creating test proposals to trace the complete approval flow
* Verifying that correct information was displayed to appropriate roles
* Testing boundary conditions and error handling
* Validating that feedback was properly incorporated

Multiple iterations of testing led to continuous improvements in the user interface and workflow logic.

**Conclusion**

The Sammati Proposal Approval Automation Solution has evolved from a basic three-stage approval system to a comprehensive proposal management platform that accommodates complex workflows and diverse proposal types. While certain features remain in development, the current implementation successfully addresses the core challenges identified in the project statement.

The redesigned interface, expanded workflow, and enhanced communication features provide a significant improvement over both the initial design and the previous Microsoft Forms-based solution. The ability for administrators to define custom proposal types with specific requirements directly addresses the central challenge of ensuring properly prepared submissions.

Future development will focus on completing the editing functionality, implementing notifications, and potentially adding reporting capabilities to further enhance the system's utility and user experience.