Lab Resource Application Form

Case Providing Department: Laboratory and Technical Management Office

Supported by LM

1. Background

1）**Inefficient Submission**: Students were required to print paper forms.

2）**Sequential Signatures**: Applicants had to physically seek out each team member and advisor for offline signatures one by one, which was time-consuming, labor-intensive, and prone to delays due to unavailability.

3）**Inconvenient Management**: Paper forms were easily lost, difficult to locate, and hindered statistical analysis.

2. Solutions

Key Function Designs:

1. **Automatic population of preset fields** (e.g., auto-generating the submitter's name and start time) ensures the accuracy and completeness of information.

2. **Integration with a no-code platform and the university's system** enables automatic email notifications to relevant personnel, who can then provide their signatures via email confirmation.
3. **Built-in terms and conditions** require applicants to provide a digital signature to confirm they have understood and agree to abide by the laboratory rules and regulations, thereby enhancing standardization and accountability.

Process Optimization Methods:

1. Applicants can complete the form online anytime, anywhere, eliminating the need for printing.
2. After form submission and digital signature confirmation, the system automatically routes the application to the advisor (for approval) and team members (for signatures), removing the requirement for in-person wet-ink signatures and significantly shortening the entire process cycle.
3. All application data is stored electronically, facilitating easy retrieval, archiving, and data analysis, which provides data-driven support for laboratory resource management and planning.

3. Outcomes and Benefits

1. **Shortened Application Cycle:** The process has been optimized from relying on manual "sequential signatures" to system-automated "parallel approval."
2. **Paperless Operations:** Completely eliminates the costs associated with paper, printing, and physical storage.
3. **Reduced Labor Costs:** Automated workflows minimize the administrative burden of manually tracking, archiving, and organizing documents.
4. **Standardized and Normalized Management:** Preset fields and mandatory requirements ensure the completeness, accuracy, and standardization of information collection, laying a solid foundation for subsequent data analysis.

4. Replicability and Promotion Value

This laboratory resource online application system solution demonstrates high replicability and broad promotion value. Its modular functional design allows core components—such as online forms, electronic signatures, automated workflows, and data dashboards—to function as independent, versatile modules. The system supports flexible configuration, enabling quick adaptation to various scenarios through simple modifications like

replacing form fields, adjusting approval processes, or updating terms and conditions, without requiring redevelopment from scratch.