

Educational Organization Using ServiceNow

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Requirement Analysis

Requirement Analysis is a critical phase in the development of the Educational Organisation Management System using ServiceNow. This phase focuses on identifying, analyzing, and documenting the functional and non-functional requirements of the system. It ensures that the proposed solution meets the needs of all stakeholders, including administrators, teachers, management, and indirectly, students. A clear understanding of requirements helps in designing a system that is efficient, scalable, and user-friendly.

The primary requirement of the system is to create a centralized platform for managing student and teacher information. The system must allow administrators to register students by entering essential details such as name, date of birth, contact information, course details, and admission status. Similarly, teacher records must be maintained with relevant information such as qualification, department, contact details, and assigned subjects. These records should be stored in structured custom tables within the ServiceNow platform to ensure easy retrieval and management.

Another important functional requirement is automated number generation. Each student and teacher record must have a unique identification number generated automatically using number maintenance. This ensures that there is no duplication of records and helps in tracking data accurately. The system must also provide properly designed forms with logical layout and grouping of fields to enhance usability. Mandatory fields should be implemented to prevent incomplete data entry.

The system must include validation mechanisms using client scripts to ensure data accuracy.

For example, phone numbers should follow a specific format, email addresses should be validated, and certain fields should appear or become mandatory based on user input. These dynamic behaviors improve data reliability and reduce manual correction efforts. The system should also display appropriate error messages if incorrect data is entered.

Workflow automation is another major requirement. The system must include process flows to manage admission approvals and other administrative processes. When a student registration form is submitted, it should automatically be routed to the concerned authority for approval. The workflow should track the status of each request, such as pending, approved, or rejected. This automation reduces processing time and improves transparency within the institution.

Role-based access control is also a key requirement. The system must differentiate between different types of users. Administrators should have full access to create, update, and delete records. Teachers may have limited access to view and update academic-related information. Management should have access to reports and monitoring tools. This ensures data security and prevents unauthorized access to sensitive information.

In addition to functional requirements, several non-functional requirements must also be considered. The system should be user-friendly and easy to navigate, even for users with basic technical knowledge. Performance is important; the system should respond quickly to user actions and handle multiple records efficiently. Reliability is another critical factor, ensuring that data is stored securely and remains available when required. The system must also be scalable to accommodate an increasing number of students and staff over time.

Security requirements include proper authentication mechanisms, secure data storage, and restricted access based on roles. Data integrity must be maintained to ensure that information is accurate and consistent. Backup and recovery mechanisms should also be considered to prevent data loss.

The system should support reporting and monitoring features. Administrators and management should be able to generate reports related to student admissions, department details, and overall institutional performance. This requirement helps in better decision-making and performance evaluation.

In conclusion, the Requirement Analysis phase defines the essential features and constraints of the Educational Organisation Management System using ServiceNow. It identifies both functional requirements such as data management, workflow automation, and validation, as well as non-functional requirements such as performance, security, and scalability. By clearly outlining these requirements, the project ensures that the developed system effectively addresses institutional challenges and provides a reliable, automated, and efficient management solution.