

Educational Organization Using ServiceNow

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Project Design Phase

The Project Design Phase of the Educational Organisation Management System using ServiceNow focuses on transforming the identified requirements into a structured system architecture and technical blueprint. This phase defines how the system will be built, how different components will interact, and how data will flow within the application. The objective of this phase is to design a scalable, secure, and user-friendly system that efficiently manages educational administrative activities.

The system is designed as a centralized web-based application developed on the ServiceNow platform. The architecture follows a structured approach where data storage, application logic, and user interface are clearly organized. Custom tables are created to store student and teacher information. These tables act as the database layer of the system, ensuring that all records are stored in a structured and consistent format. Each table includes fields relevant to the entity, such as personal details, department information, admission status, and contact information. Relationships between tables are defined where necessary to maintain data integrity and logical connections.

The user interface design plays an important role in the system. Forms are designed using ServiceNow's form layout and form design features to ensure that data entry is simple and organized. Fields are grouped into logical sections such as personal details, academic details, and contact information. Mandatory fields are clearly defined to prevent incomplete submissions. The design ensures that users can easily navigate through the system without confusion. Proper labeling and structured arrangement of fields enhance usability and improve user experience.

Number maintenance is incorporated into the system design to automatically generate unique identification numbers for students and teachers. This feature eliminates duplication and ensures that each record can be uniquely identified and tracked. The numbering pattern is predefined to maintain consistency and professional record management.

Client-side validation is implemented through Client Scripts to enhance data accuracy. These scripts control form behavior dynamically, such as making fields mandatory based on conditions, validating email formats, restricting invalid inputs, and displaying alert messages. By handling validation at the client level, the system reduces incorrect data entry before submission, thereby improving overall data quality.

Workflow automation is designed using Process Flow mechanisms within ServiceNow. The admission process is structured into defined stages such as submission, review, approval, and confirmation. When a student submits an application, the system automatically routes it to the designated authority for approval. Status indicators help track the progress of each request. This design ensures transparency, accountability, and faster processing of administrative tasks.

Security is a critical aspect of the project design. Role-based access control is implemented to restrict access according to user responsibilities. Administrators have full control over record creation, modification, and deletion. Teachers are given limited access based on their role, and management users can view reports and dashboards. Authentication and authorization mechanisms ensure that only authorized users can access sensitive information. This layered security approach protects institutional data from unauthorized usage.

The reporting and monitoring design allows administrators and management to generate reports related to admissions, department-wise student distribution, and overall institutional performance. ServiceNow's built-in reporting tools are utilized to create structured reports and dashboards. These reports assist in decision-making and provide insights into system usage and institutional growth.

From a technical perspective, the system design ensures scalability and maintainability. The modular approach allows future enhancements such as adding new departments, additional workflows, or extended reporting features without affecting existing functionality. Update Sets

are used to manage changes and maintain version control, ensuring smooth deployment and migration between environments.

In conclusion, the Project Design Phase establishes a comprehensive framework for developing the Educational Organisation Management System using ServiceNow. It defines the database structure, user interface layout, automation workflows, security mechanisms, and reporting capabilities. By carefully designing each component, the system ensures efficiency, reliability, scalability, and user satisfaction. This phase serves as the foundation for successful implementation and deployment of the project.