

Project Design Phase-II

Data Flow Diagram & User Stories

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Project Name: Educational Organization Management Using ServiceNow

Data Flow Diagram (DFD)

A **Data Flow Diagram (DFD)** is a visual representation of how data moves within a system. It illustrates the flow of information between users, processes, and data stores in a structured and logical manner. In the *Educational Organization Management System using ServiceNow*, the DFD shows how data is collected, processed, and utilized across various modules such as student management, course enrollment, and faculty coordination.

| User Type | Functional Requirement (Epic) | User Story / Task | Acceptance Criteria | Priority | Release |
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|----------------------|------------------------------|---|--|------|---------|
| Administrator | Student & Faculty Management | As an admin, I want to manage student and staff data digitally. | The system should allow easy record creation, editing, and | High | Sprint1 |
|----------------------|------------------------------|---|--|------|---------|

The system begins with inputs from users — such as administrators, faculty, and students — who interact with ServiceNow through the portal. The data flows into different modules like **Student Records, Course Management, Attendance Tracking, and Request Management**. Each module processes and stores information in the central database, ensuring seamless integration between departments.

For example, when a student enrolls in a course, the data flows from the **Student Module** to the **Course Database**. The system automatically updates attendance and grading records, while notifications are sent to faculty and administrators for approval. This automated data flow eliminates redundancy, enhances transparency, and reduces manual intervention.

The DFD clearly depicts how ServiceNow enables a connected educational ecosystem where every transaction — from student admission to result generation — is tracked, verified, and stored efficiently. This architecture ensures **data accuracy, accessibility, and accountability** across the entire institution.

User Stories

User Stories describe how different users interact with the system and what outcomes they expect. They help define clear, goal-oriented functionalities from the user’s perspective.

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|----------------------------|-----------------------------|--|--|--------|---------|
| | | | tracking. | | |
| Faculty Member | Academic Workflow | As a faculty, I want to update attendance and grades directly in the system. | Attendance and marks should update in real time and reflect on dashboards. | High | Sprint2 |
| Student | Course Enrollment & Support | As a student, I want to enroll in courses and track my requests online. | The system should process enrollment requests and provide instant updates. | Medium | Sprint2 |
| System (Automation) | Workflow Validation | As the system, I must validate all entries and requests automatically. | Data must sync correctly across modules without manual input. | High | Sprint3 |

Conclusion

The **Data Flow Diagram** and **User Stories** together illustrate how the *Educational Organization Management System using ServiceNow* streamlines institutional operations. DFDs ensure structured data flow between users and modules, while user stories provide clarity on functional expectations. Combined, they form the foundation for an automated, efficient, and user-friendly educational platform that enhances collaboration and performance across all stakeholders.