

## Project Design Phase-II

### Data Flow Diagrams & User Stories

|               |   |
|---------------|---|
| Date          | 1 November 2025                           |
| Team ID       | NM2025TMID03588                           |
| Project Name  | Educational Organization using ServiceNow |
| Maximum Marks | 4 Marks                                   |

#### Data Flow Diagrams:

A Data Flow Diagram (DFD) models the movement of information within the Educational Organization system implemented on the *ServiceNow* platform. It delineates data acquisition, validation, transformation, and storage processes to ensure operational integrity.

#### Level-0 (Context) DFD – Description:

This high-level diagram encapsulates the entire system as a single process, illustrating its interactions with external entities, data repositories, and integrated systems.

**External Entity:** Administrator

**Process:** ServiceNow Management System

**Data Repositories:** Student Records, Course Records, Incident Records

**External System:** Notification Module

#### Flow Description

- The Administrator initiates operations (e.g., creation or modification of records).
- The ServiceNow Management System (Process) performs validation of incoming data against corresponding Data Repositories.
- Upon successful validation, the system updates the relevant records in Student, Course, and Incident Databases; if validation fails or predefined conditions are met, an alert is generated.
- The system transmits relevant data to the Notification Module (External System) to dispatch alerts.
- All transactional activities are logged for auditability and verification purposes.

| User Type     | Functional Requirements | No.    | User Story / Task  | Acceptance Criteria   | Priority | Release  |
|---------------|-------------------------|--------|--|---|----------|----------|
| Administrator | User Management         | USN-S1 | Manage student records (add, update, delete) ensuring data validation. | Prevent deletion if linked with active records;confirm success messages for valid | High     | Sprint-1 |

|            |                  |        |  |   |        |          |
|------------|------------------|--------|--|---|--------|----------|
|            |                  |        |  | operations.   |        |          |
| System     | Validation Rules | USN-S2 | Perform automatic validation for each operation to ensure consistency. | Block invalid updates and record each failed attempt in logs.   | High   | Sprint-1 |
| Instructor | View Access      | USN-S3 | View and monitor course and student details.                           | Read-only permissions must be enforced to prevent edits.        | Medium | Sprint-2 |
| Registrar  | Audit Logs       | USN-S4 | Review and verify student modification logs for compliance.            | Logs should include timestamps, user IDs, and activity details. | Medium | Sprint-2 |
| Student    | Self-Service     | USN-S5 | Submit update requests for profile data with admin approval.           | All requests should require admin review before approval.       | Low    | Sprint-3 |
| System     | Notifications    | USN-S6 | Send automated alerts for any change or validation event.              | Alerts must be instant, logged, and viewable by users.          | Medium | Sprint-3 |

### Summary:

This document presents a structured overview of the Educational Organization project implemented in *ServiceNow*. The 'Functional Requirement' column utilizes a reduced font size to ensure optimal fit within table boundaries while preserving clarity.



