

REQUIREMENT ANALYSIS

DATAFLOW DIAGRAM & USER STORIES

Date	2 November 2025
Team ID	NM2025TMID03847
Project Name	Educational Organisation using Service Now
Maximum Marks	4 Marks

Overview

The Requirement Analysis Phase lays the foundation for designing a robust Educational Management System using ServiceNow. It identifies stakeholder needs, defines functional workflows, and outlines the technical architecture required to automate admissions, academic tracking, and reporting.

Level 0 DFD – Context Diagram

The Data Flow Diagram (DFD) visually represents the movement of data within the system — how information is input, processed, and output between users, processes, and data stores.

Entities:

- Admin: Manages admissions and student records
- Teacher: Updates academic progress
- Student/Parent: Views performance and admission status
- System Database: Stores all records securely

Process:

- The “Educational Management System” receives, processes, and outputs data related to admissions and student performance.

Data Flows:

- Admin inputs → System

- Teacher updates → System
- Student/Parent views ← System
- System ↔ Database
- Admin inputs admission and student data.
- Teachers update marks and results.
- Students/Parents access progress reports.
- The system stores and retrieves all data through ServiceNow tables.

[Admin] → [Educational Management System] ← [Teacher]



[Database] ←→ [Student/Parent]

Level 1 DFD (Detailed View) Processes:

Processes:

1. Admission Management
 - Inputs: Student details, documents, pincode
 - Outputs: Admission record with generated Admin ID
 - Data Store: Admission Table
2. Student Record Management
 - Inputs: Name, class, address, marks
 - Processing: Auto-population and validation
 - Data Store: Salesforce Table
3. Progress Tracking
 - Inputs: Marks from teachers
 - Processing: Total, percentage, and result calculation
 - Data Store: Student Progress Table
4. Result Reporting
 - Outputs: Reports for students and parents
 - Processing: Fetches data from linked tables and displays summary

2. User Stories

User stories describe how different stakeholders interact with the system to achieve their goals. Each story includes a role, action, and expected outcome.

User Story ID	As a (Role)	I want to (Goal/Action)	So that I can (Outcome/Benefit)
US-01	Admin	Create and manage student admission records	Maintain accurate student data for each academic year
US-02	Admin	Auto-generate unique admission numbers	Avoid duplication and maintain data consistency
US-03	Admin	View and update student details	Keep records up-to-date for official purposes
US-04	Teacher	Enter marks and evaluate student performance	Monitor and analyze student academic progress
US-05	Teacher	Automatically calculate total and percentage	Reduce manual calculation errors
US-06	Teacher	Determine “Pass/Fail” results automatically	Simplify evaluation process
US-07	Student	View my academic performance report	Track personal progress and improvement
US-08	Parent	Check admission and result details	Stay informed about child's academic status
US-09	System	Auto-fill address fields based on pincode	Increase accuracy and data entry speed
US-10	System	Disable computed fields for users	Prevent accidental modification of calculated values