

PROJECT DESIGN PHASE

Solution Architecture

Date	1 November 2025
Team ID	NM2025TMID03847
Project Name	Educational Organisation using Service Now
Maximum Marks	4 Marks

Solution Architecture

The **Solution Architecture** defines how different components of the Educational Management System interact within the ServiceNow environment.

It ensures smooth data flow between modules and clear process automation across all functions.

1. Architectural Overview

System Layers:

1. Presentation Layer (User Interface):

- Accessed by Admins, Teachers, and Staff.
- Includes custom-designed forms for Salesforce, Admission, and Student Progress tables. ○ Enables interaction through dashboards and menus created in ServiceNow.

2. Application Logic Layer (Business Logic):

- Implements automation through **Client Scripts** and **Process Flows**.
- Handles admission number generation, data auto-population, and performance calculations.
- Ensures validation and field control through UI policies.

3. Data Layer (Database Tables):

- Consists of three core tables:
 - ▣ **Salesforce Table (u_salesforce)** – Base table containing core student/teacher data.
 - ▣ **Admission Table (u_admission)** – Extends Salesforce with admission details.
 - ▣ **Student Progress Table (u_progress)** – Stores subject-wise marks and result details.
- All data is stored in ServiceNow's internal database with relationships maintained via reference fields.

2. Data Flow Description

1. Student Admission Stage ○ Admin fills out the

Admission Form.

- “Admin Number” auto-generates using the Number Maintenance module.
- Related data auto-populates from the Salesforce Table using “Auto Populate Script.”

2. Address Entry

- When the user enters the Pincode, the system automatically fills Mandal, City, and District fields.

3. Academic Progress Tracking ○ Teacher inputs marks into the Student Progress Form. ○ System calculates Total Marks, Percentage, and Result automatically using scripts.

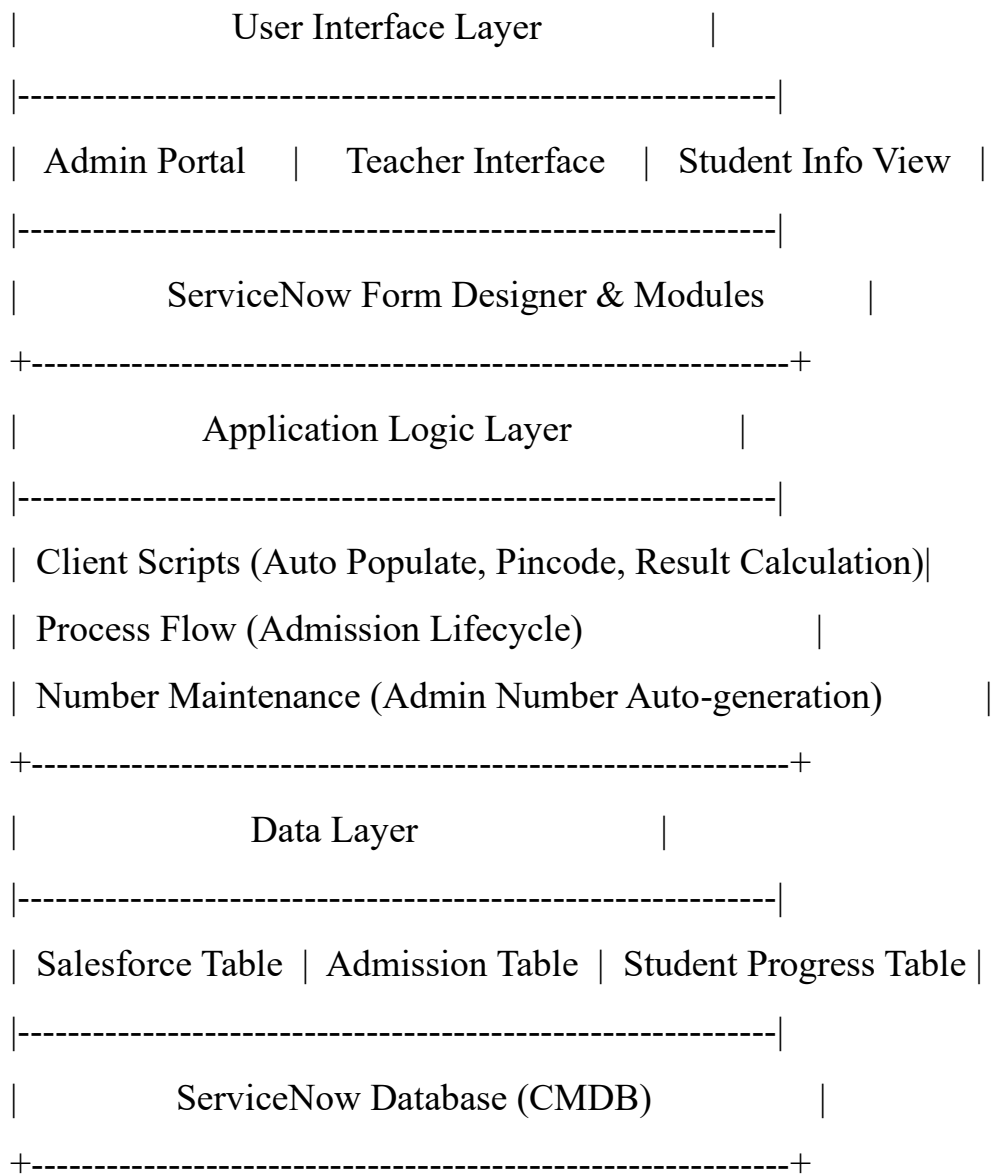
4. Process Flow Management

- The Admission Table follows the defined lifecycle:
New → In Progress → Joined → Rejected → Rejoined → Closed → Cancelled.

5. Data Retrieval & Reporting

- All records are accessible through ServiceNow modules under “Salesforce.”

- Reports can be generated dynamically based on student performance and admission data. +-----
-----+



3. Summary – Design Phase

The Design Phase defines the technical blueprint of the Educational Organisation Management System.

Through the structured use of ServiceNow’s platform capabilities, it ensures that all key modules — admissions, student data management, and academic progress tracking — are automated and integrated.

The Problem–Solution Fit validates the alignment between user needs and technological solutions, while the Solution Architecture provides a scalable foundation for further enhancement, analytics, and institutional growth.