

# Educational Organization Using ServiceNow

Team ID	LTVIP2026TMIDS66823
Project Name	Educational Organization Using ServiceNow
Faculty Mentor Name	DR P L Madhava Rao
College Name	Kallam Haranadhareddy Institute of Technology

## 1. INTRODUCTION

### 1.1 Project Overview

The “Educational Organisation Using ServiceNow” project is designed to develop a centralized Educational Management System using the ServiceNow platform. The system aims to streamline administrative operations within an educational institution by digitizing student records, teacher management, admission processes, and academic tracking.

Educational institutions often manage large volumes of data manually or through disconnected systems, leading to inefficiencies, delays, and errors. This project leverages ServiceNow’s capabilities such as tables, forms, workflows, client scripts, and automation to create an integrated system that improves operational efficiency and data accuracy.

The platform enables administrators to manage student admissions, maintain academic records, assign faculty, track attendance, and monitor performance through automated workflows and structured database

### 1.2 Purpose

The purpose of this project is to:

- Digitize and centralize institutional data.
- Automate admission and approval workflows.
- Improve communication between administration, teachers, and students.
- Reduce manual paperwork and redundancy.
- Enhance transparency and accountability.
- Provide real-time tracking of academic and administrative processes.

## **2. IDEATION PHASE**

### **2.1 Problem Statement**

Educational institutions face multiple challenges in managing administrative and academic activities. Most institutions rely on manual documentation or fragmented systems for student enrolment, teacher assignment, and academic tracking. These systems often result in:

- Data redundancy and inconsistency.
- Delays in processing admissions.
- Lack of centralized student information.
- Difficulty in monitoring academic progress.
- Inefficient communication between departments.

There is a need for a unified, automated, and scalable system that integrates all administrative and academic functions in one platform. The proposed solution uses ServiceNow to address these challenges effectively.

### **2.2 Empathy Map Canvas**

To better understand the stakeholders (students, teachers, administrators), an empathy map was created.

Students

- Think & Feel: Want quick admission confirmation and easy access to academic records.
- See: Complex paperwork and delayed responses.
- Say & Do: Frequently inquire about admission status and results.
- Pain Points: Delays, lack of updates, manual errors.
- Gains: Fast processing, transparency, online access.

Teachers

- Think & Feel: Need organized student data and workload clarity.
- See: Disorganized record systems.
- Say & Do: Request updated student information.
- Pain Points: Manual record handling.
- Gains: Automated tracking, easy access to student data.

Administrators

- Think & Feel: Want efficient management and reduced workload.
- See: High volume of paperwork.
- Say & Do: Approve admissions and manage records.

- Pain Points: Redundant data entry and inefficiency.
- Gains: Automated workflows and centralized control.

## **2.3 Brainstorming**

During brainstorming, several ideas were discussed:

- Developing a web-based portal for admissions.
- Automating student ID generation using Number Maintenance.
- Creating separate tables for Students, Teachers, and Courses.
- Designing approval workflows for admission processes.
- Implementing client scripts for form validation.
- Generating automated notifications upon approval.

After evaluation, the idea of building the complete system within ServiceNow using tables, forms, workflows, and automation was finalized.

## **3. REQUIREMENT ANALYSIS**

### **3.1 Customer Journey Map**

1. Student submits admission form.
2. System validates required details.
3. Admission request is sent to administrator for approval.
4. Administrator reviews and approves/rejects.
5. Upon approval, student record is created automatically.
6. Student receives confirmation notification.

### **3.2 Solution Requirements**

#### **Functional Requirements**

- Create student registration form.
- Store student details in a database table.
- Automate admission approval workflow.
- Generate unique student IDs.
- Maintain teacher and course records.
- Enable form validation using client scripts.

## **Non-Functional Requirements**

- Secure data storage.
- Fast response time.
- User-friendly interface.
- Scalability for increasing student data.
- Role-based access control.

### **3.3 Data Flow Diagram (DFD)**

- User submits admission form →
- Data stored in Student Table →
- Workflow triggers approval process →
- Admin reviews request →
- Approval updates database →
- Notification sent to student.

### **3.4 Technology Stack**

- Platform: ServiceNow
- Database: ServiceNow Tables
- Scripting: Client Scripts (JavaScript)
- Workflow Automation: Process Flow / Flow Designer
- UI Components: Form Layout & Form Design
- Number Maintenance for ID generation

## **4. PROJECT DESIGN**

### **4.1 Problem Solution Fit**

The proposed ServiceNow-based system directly addresses administrative inefficiencies by centralizing and automating educational management tasks. It reduces manual errors, improves speed, and enhances transparency.

### **4.2 Proposed Solution**

The system includes:

- Student Table
- Teacher Table

- Course Table
- Admission Form
- Automated Approval Workflow
- Unique ID Generation
- Notification System

The solution ensures smooth data flow between students and administrators.

### **4.3 Solution Architecture**

1. User Interface Layer – Admission and management forms.
2. Application Layer – Client scripts and workflows.
3. Database Layer – Custom tables for storing records.
4. Automation Layer – Flow Designer for approvals and notifications.

## **5. PROJECT PLANNING & SCHEDULING**

### **5.1 Project Planning**

Phase1–RequirementAnalysis

Phase2–TableCreation

Phase3–FormDesign

Phase4–NumberMaintenanceSetup

Phase5-WorkflowDevelopment

Phase6–ClientScriptImplementation

Phase7–Testing

Phase 8 – Deployment

## **6. FUNCTIONAL AND PERFORMANCE TESTING**

### **6.1 Performance Testing**

- Verified form validation functionality.
- Tested approval workflow automation.
- Checked unique ID generation.
- Ensured database record creation accuracy.
- Tested notification delivery system.

The system performs efficiently without delays or data inconsistencies.

## 7. RESULTS

### 7.1 Output Screenshots

- Creation of New Update Set

The screenshot shows the ServiceNow interface for creating a new Update Set. The browser tabs include 'ServiceNow Developers' and 'Educational Organisation | Upd...'. The URL is 'dev276983.service-now.com/now/nav/ui/classic/params/target/sys\_update\_set.do%3Fsys\_id%3D2cb35715c312221080fd1173e40131d7%26sysparm\_record\_target%3Dsys\_u...'. The page title is 'Update Set - Educational Organisation'. The form includes fields for Name (Educational Organisation), State (In progress), Parent, Release date, Install date, Installed from, and Description. On the right, there are fields for Application (Global), Created (2025-06-21 22:48:59), Created by (admin), and Merged to. An 'Update' button is at the bottom left. Below the form, there are 'Related Links' for 'Merge With Another Update Set' and 'Scan Update Set'.

- Creation of Salesforce Table

The screenshot shows the ServiceNow interface for creating a new Table. The browser tabs include 'ServiceNow Developers' and 'Salesforce | Table | ServiceNow'. The URL is 'dev276983.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D45049355c312221080fd1173e4013155%26sysparm\_record\_target%3Dsys\_db...'. The page title is 'Table - Salesforce'. The form includes fields for Label (Salesforce) and Name (u\_salesforce). On the right, there is a field for Application (Global). Below the form, there is a 'Table Columns' section with a search bar and a table of dictionary entries.

Column label	Type	Reference	Max length	Default value	Display
Mother Cell	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Admin Number	String	(empty)	40	javascriptgetNextObj(NumberPadded);	true
Class	System Class Name	(empty)	80	javascriptcurrent_getTableName();	false
Created by	String	(empty)	40		false
Father Name	String	(empty)	40		false
Grade	Choice	(empty)	40		false
Mother Name	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Father Cell	String	(empty)	40		false
Student Name	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Admin date	Date	(empty)	40		false

- Creating Admission Table

ServiceNow Developers | Admission | Table | ServiceNow

dev276983.servicenow.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D14d85bd9c312221080fd1173e401317b%26sysparm\_record\_target%3Dsys\_db\_...

servicenow | All | Favorites | History | Workspaces | Admin | Table - Admission

Table: Admission

Label: Admission

Name: u\_admission

Extends table: Salesforce

Application: Global

Columns | Controls | Application Access

Table Columns for text

Column label	Type	Reference	Max length	Default value	Display
Class	String	(empty)	40		false
Mandal	String	(empty)	40		false
House No	String	(empty)	40		false
Fee	Price	(empty)	20		false
Purpose of Join	Choice	(empty)	40		false
Pincode	Choice	(empty)	40		false
Area	String	(empty)	40		false
School	Choice	(empty)	40		false
Admission Number	Reference	Salesforce	32		false
Admin Status	Choice	(empty)	40		false
District	String	(empty)	40		false
School Area	Choice	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
City	String	(empty)	40		false
Comments	String (Full UTF-8)	(empty)	255		false
Mother Cell	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Admission Number	Scalar	(empty)	40	...[secret]...[secret]...[secret]...	true

- Creating Student Progress Table

ServiceNow Developers | Student Progress | Table | ServiceNow

dev276983.servicenow.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D5530f425c3d6221080fd1173e4013191%26sysparm\_record\_target%3Dsys\_db\_...

servicenow | All | Favorites | History | Workspaces | Admin | Table - Student Progress

Table: Student Progress

Label: Student Progress

Name: u\_student\_progress

Application: Global

Columns | Controls | Application Access

Table Columns for text

Column label	Type	Reference	Max length	Default value	Display
Science	String	(empty)	40		false
Admission Number	Reference	Salesforce	32		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Percentage	String	(empty)	40		false
Hindi	String	(empty)	40		false
Total	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Telugu	String	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Maths	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
Result	String	(empty)	40		false
Social	String	(empty)	40		false
English	String	(empty)	40		false

- Form Layout & Form Design

ServiceNow Developers x ServiceNow x +

dev276983.service-now.com/now/nav/ui/classic/params/target/slushbucket.do%3Fsysparm\_referring\_url%3Dsys\_db\_object.do%253Fsys\_id%253D5530f425c3d6221080fd117...

servicenow All Favorites History Workspaces Admin ServiceNow Search

Configuring Table form

Back

Available

- Admission Number (+)
- Created
- Created by
- English
- Hindi
- Maths
- Percentage
- Result
- Science
- Social
- Telugu
- Total
- Updated
- Updated by
- Updates
- begin.split-

Selected

- Admission Number
- begin.split-
- Admission Number:Grade
- Admission Number:Student Name
- split-
- Admission Number:Father Name
- Admission Number:Mother Name
- Admission Number:Father Cell
- Admission Number:Mother Cell

Cancel Save

Form view and section

View name: Default view

Section: Student Progress, Student Progress, New...

Create new field

Name:

Type: String

Field length: Small (40)

Add

Related Links

[Show versions](#)

ServiceNow Developers x Salesforce | Table | ServiceNow x Form Design x +

dev276983.service-now.com/\$ng\_fd.do?sysparm\_attributes=startTable=sys\_db\_object%2CstartView:Default%20view"

Salesforce [u\_salesforce] Default view Form Design

Fields Field Types

Filter

Fields

- Class
- Created
- Created by
- Updated
- Updated by
- Updates

Formatters

- Activities (filtered)
- Contextual Search Results
- Ratings

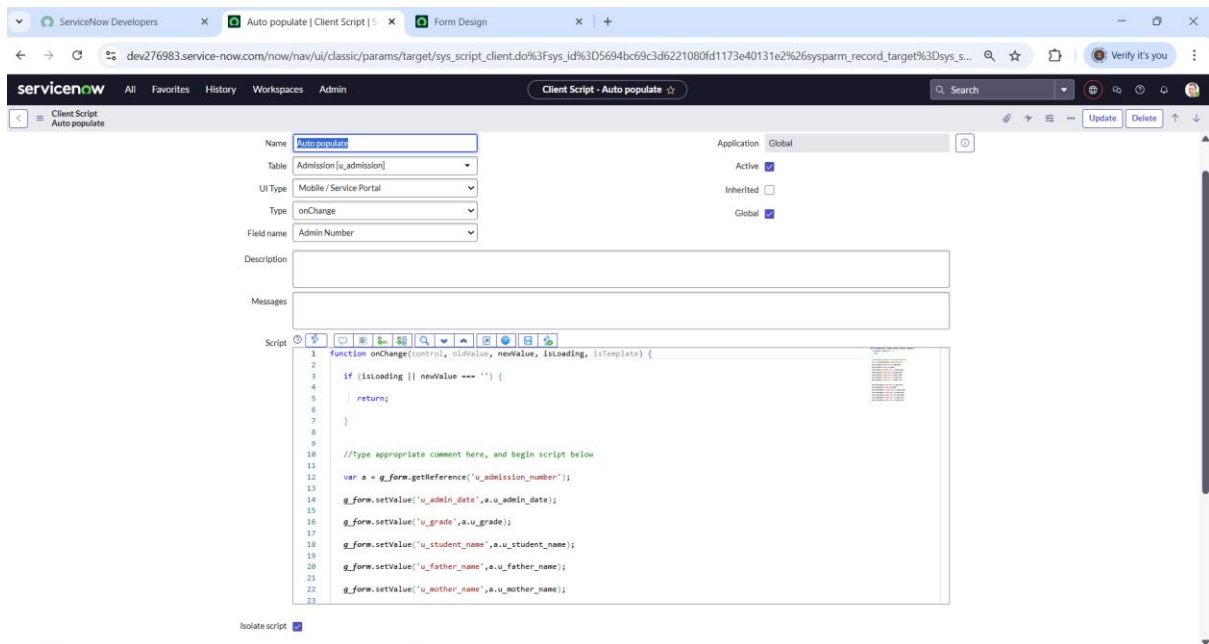
Salesforce [u\_salesforce]

2 Columns

Admin Number	Admin Number
Admin date	Admin date
Grade	Grade
Student Name	Student Name
Father Name	Father Name
Mother Name	Mother Name
Father Cell	Father Cell
Mother Cell	Mother Cell

- Creating Number Maintenance for Admin Number





- Result

## Admission Table

The screenshot shows the ServiceNow Admission form. The form is titled 'Admission - Create SAL0001011'. The form is divided into two main sections: 'New Section' and 'New record'.

The 'New Section' contains the following fields:

- Admission Number (text field)
- Purpose of join (dropdown menu, currently set to 'None --')
- Student Name (text field)
- Father Name (text field)
- Mother Name (text field)
- Comments (text area)
- Admin date (text field)
- Grade (dropdown menu, currently set to 'None --')
- Fee (text field, currently set to '0.00')
- Father Cell (text field)
- Mother Cell (text field)
- Admin Status (dropdown menu, currently set to 'None --')

The 'New record' section contains the following fields:

- School Details (text field)
- Address (text field)
- School Area (dropdown menu, currently set to 'None --')
- School (dropdown menu, currently set to 'None --')

A 'Submit' button is located at the bottom left of the form.

## Salesforce Table

ServiceNow Developers x Create SAL0001013 | Salesforce x +

dev276983.service-now.com/now/nav/ui/classic/params/target/u\_salesforce.do%3Fsys\_id%3D-1%26sys\_is\_list%3Dtrue%26sys\_target%3Du\_salesforce%26sysparm\_checked\_items... School

servicenow All Favorites History Workspaces Admin Salesforce - Create SAL0001013 Search

Salesforce New record

Admin Number

Admin date

Grade

Student Name

Father Name

Mother Name

Father Cell

Mother Cell

Submit

## Student Progress Table

ServiceNow Developers x Create Created | Student Progress x +

dev276983.service-now.com/now/nav/ui/classic/params/target/u\_student\_progress.do%3Fsys\_id%3D-1%26sys\_is\_list%3Dtrue%26sys\_target%3Du\_student\_progress%26sysparm\_c... School

servicenow All Favorites History Workspaces Admin Student Progress - Create Created Search

Student Progress New record

Admission Number

Grade

Student Name

Father Name

Mother Name

Father Cell

Mother Cell

Student Progress

Telugu

Hindi

English

Maths

Science

Social

Total

Percentage

Result

Submit

## **8. ADVANTAGES & DISADVANTAGES**

### **Advantages**

- Centralized data management
- Automated workflows
- Reduced paperwork
- Improved efficiency
- Scalable system

### **Disadvantages**

- Requires ServiceNow platform access
- Initial configuration complexity
- Needs user training

## **9. CONCLUSION**

The Educational Organisation Using ServiceNow project successfully demonstrates how digital transformation can enhance institutional efficiency. By integrating automation, structured databases, and workflow management, the system reduces manual effort and improves accuracy. The platform provides a scalable and secure solution for managing educational operations effectively.

## **10. FUTURE SCOPE**

- Integration with Payment Gateway for fee management
- Attendance tracking module
- Online examination system
- AI-based performance analytics
- Mobile application integration

## **11. APPENDIX**

- Source Code: No external code; used ServiceNow platform
- Dataset Link: Not applicable
- GitHub
- Project Demo Link

**Drive Link:**

[https://drive.google.com/drive/folders/1kIEPjlpk8\\_3MV1BezNBjM9AF9quod6iO?usp=sharing](https://drive.google.com/drive/folders/1kIEPjlpk8_3MV1BezNBjM9AF9quod6iO?usp=sharing)

**GitHub Link:**

<https://github.com/SaiGeethika12/Educational-Organisation-using-Servicenow>

**Video Link:**

[https://drive.google.com/drive/folders/1A4u\\_usofVHqnOfOaxFvoheE26Vq32-bv](https://drive.google.com/drive/folders/1A4u_usofVHqnOfOaxFvoheE26Vq32-bv)

