Educational Organization Using ServiceNow

Team ID	LTVIP2026TMIDS66823
Project Name	Educational Organization Using ServiceNow
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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

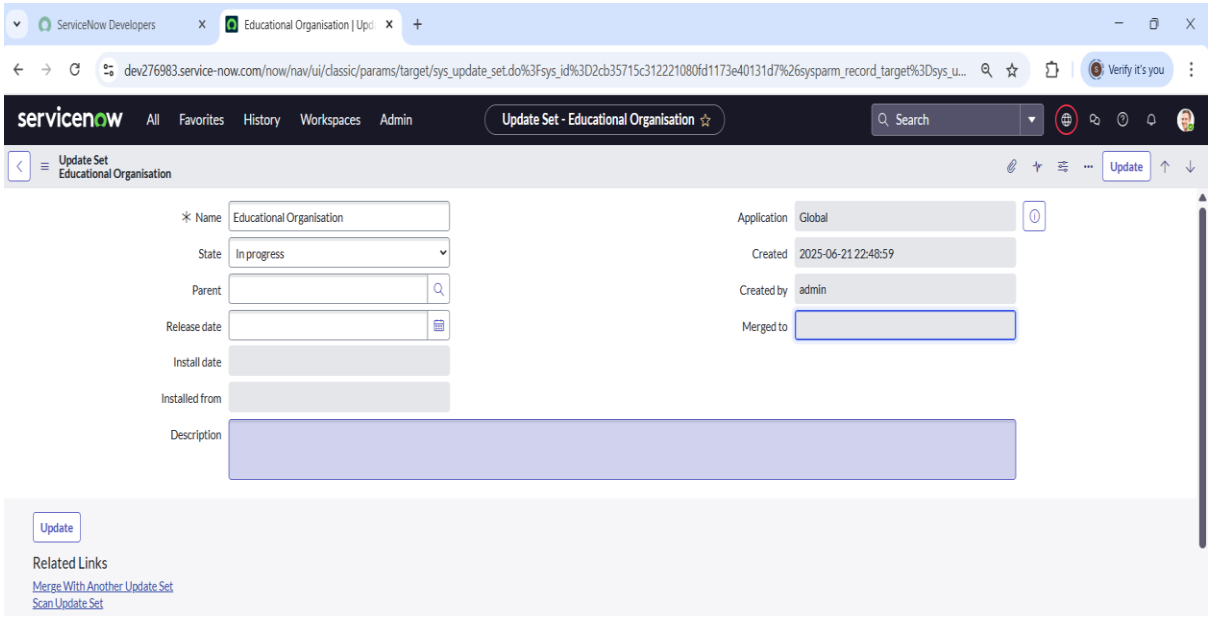
- Verified form validation functionality.
- Tested approval workflow automation.
- Checked unique ID generation.
- Ensured database record creation accuracy.
- Tested notification delivery system.

  The system performs efficiently without delays or data inconsistencies.

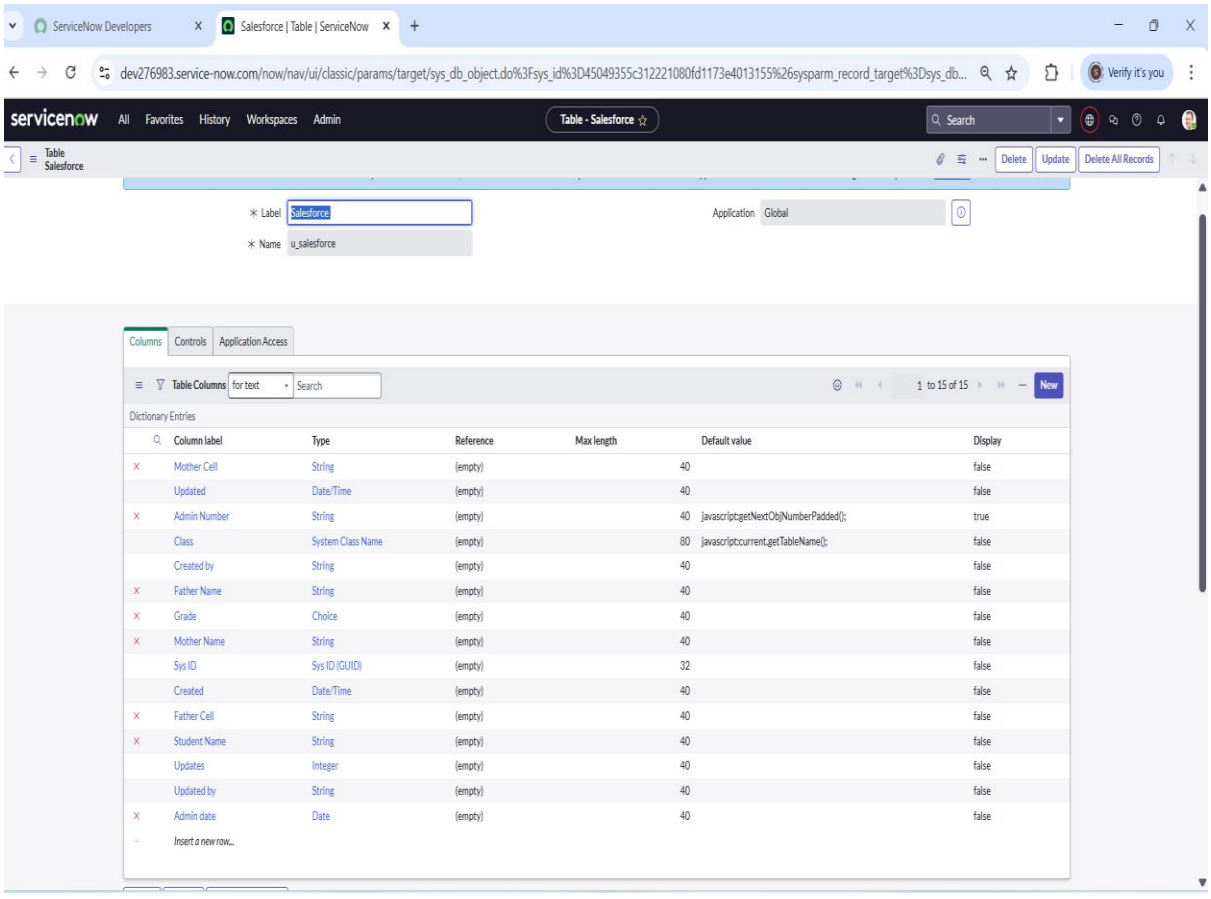
7. RESULTS

7.1 Output Screenshots

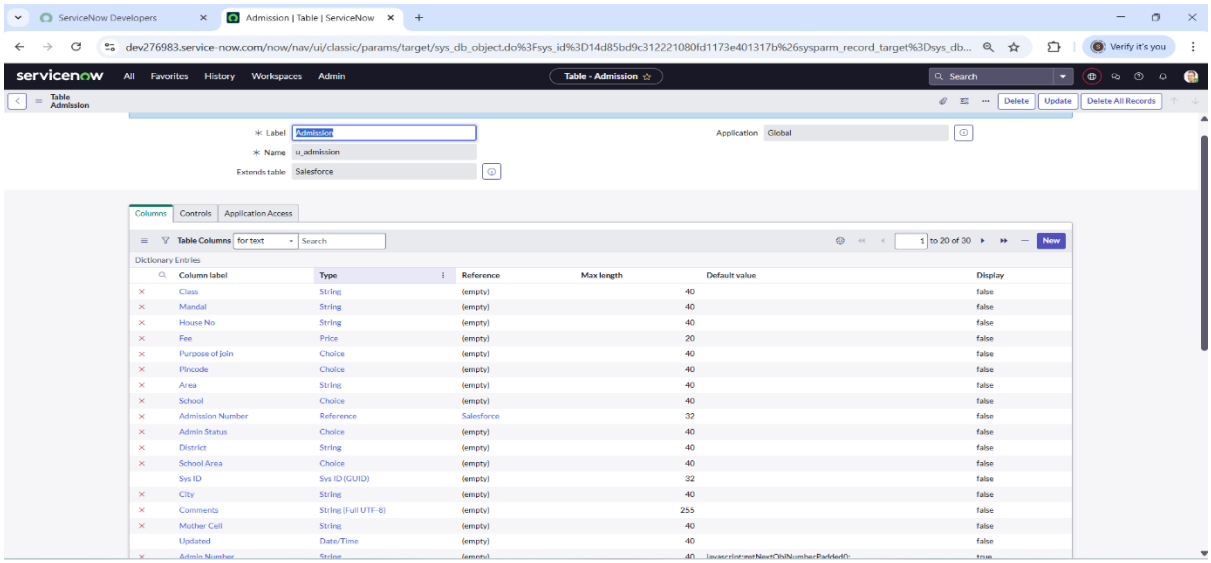
- Creation of New Update Set



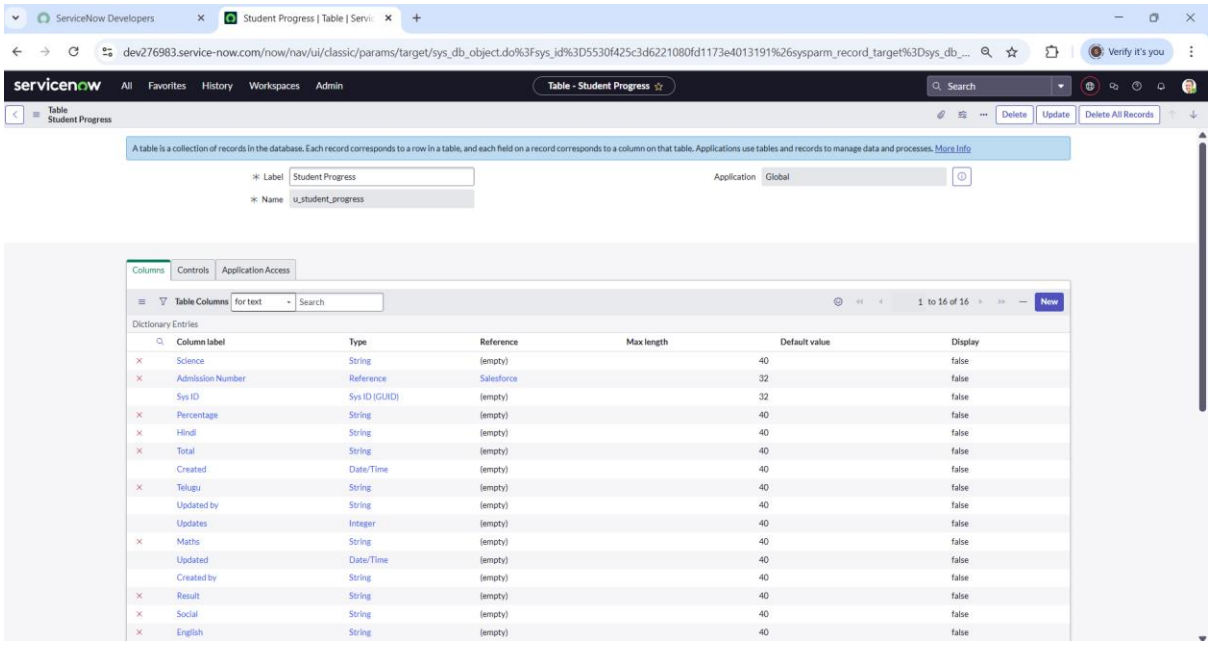
- Creation of Salesforce Table



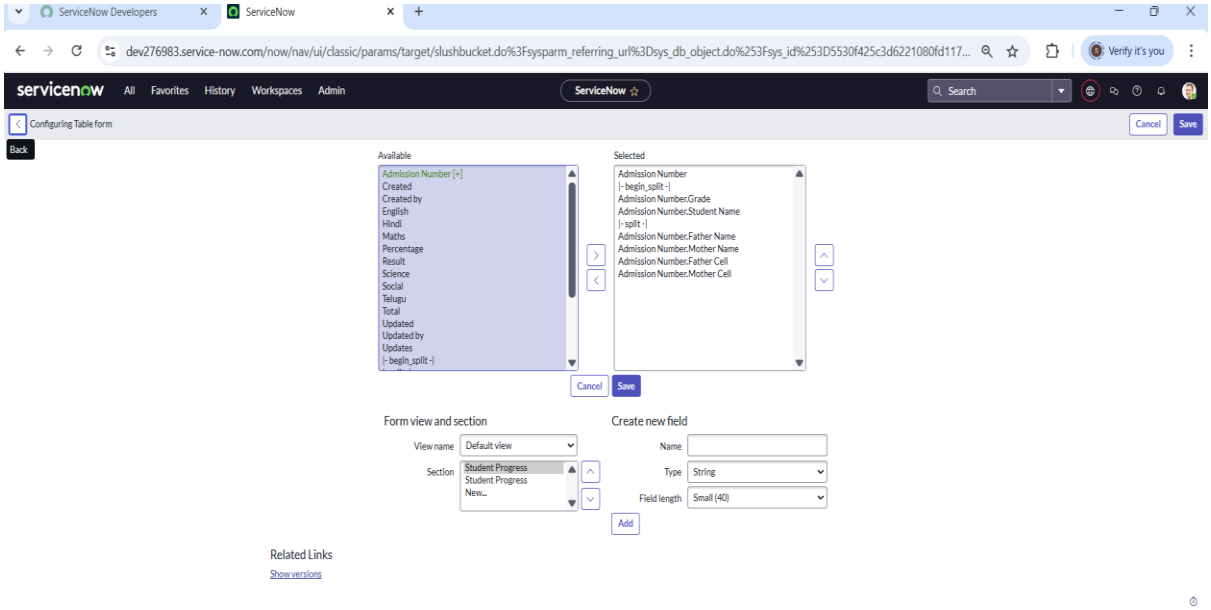
- Creating Admission Table

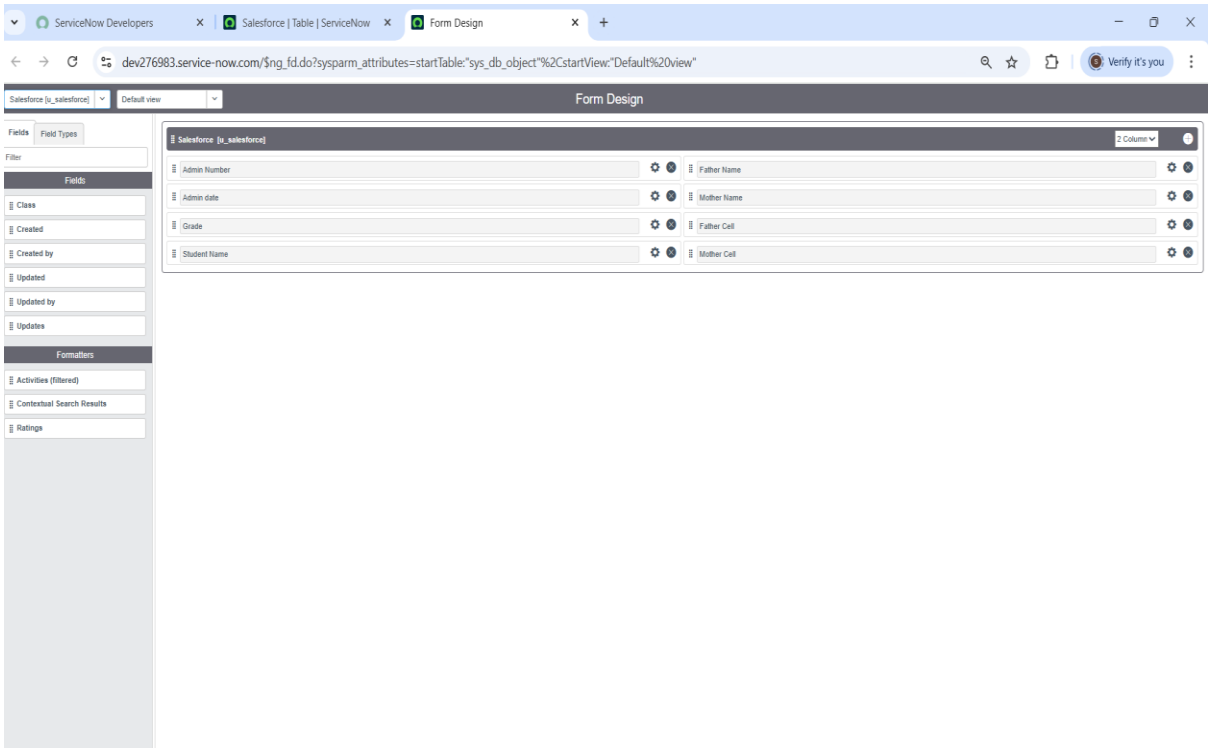


- Creating Student Progress Table

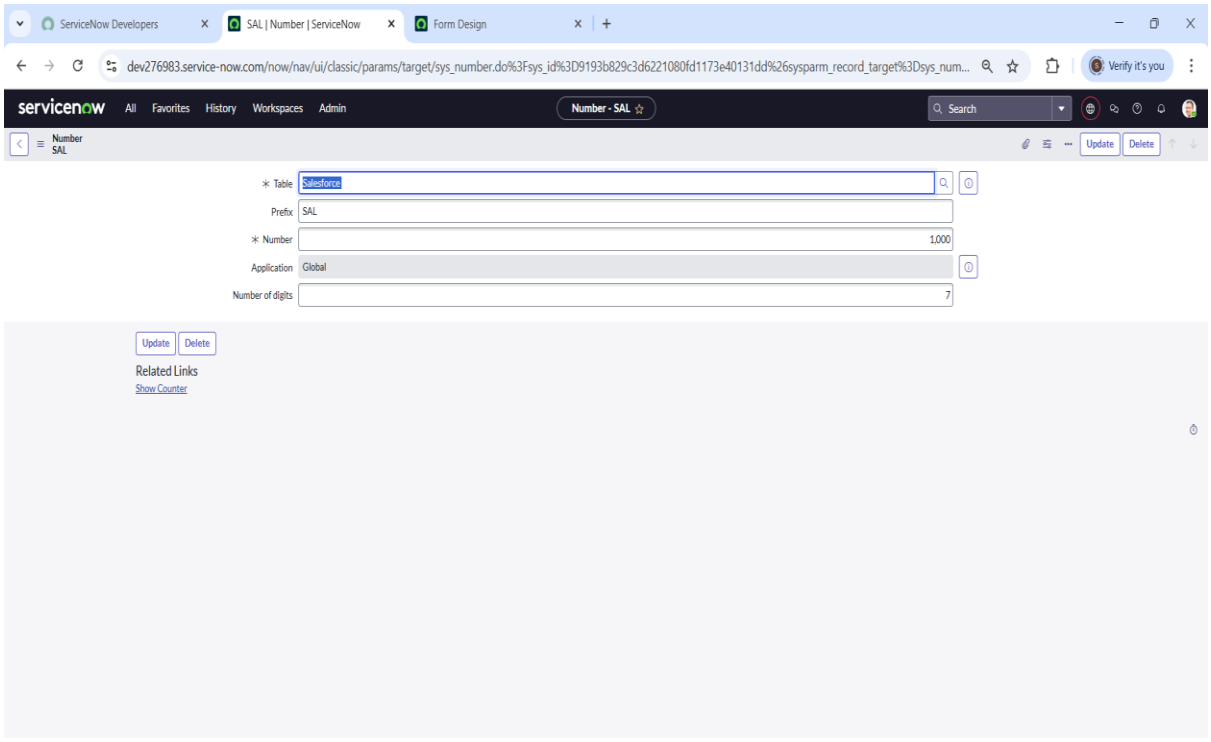


- Form Layout & Form Design

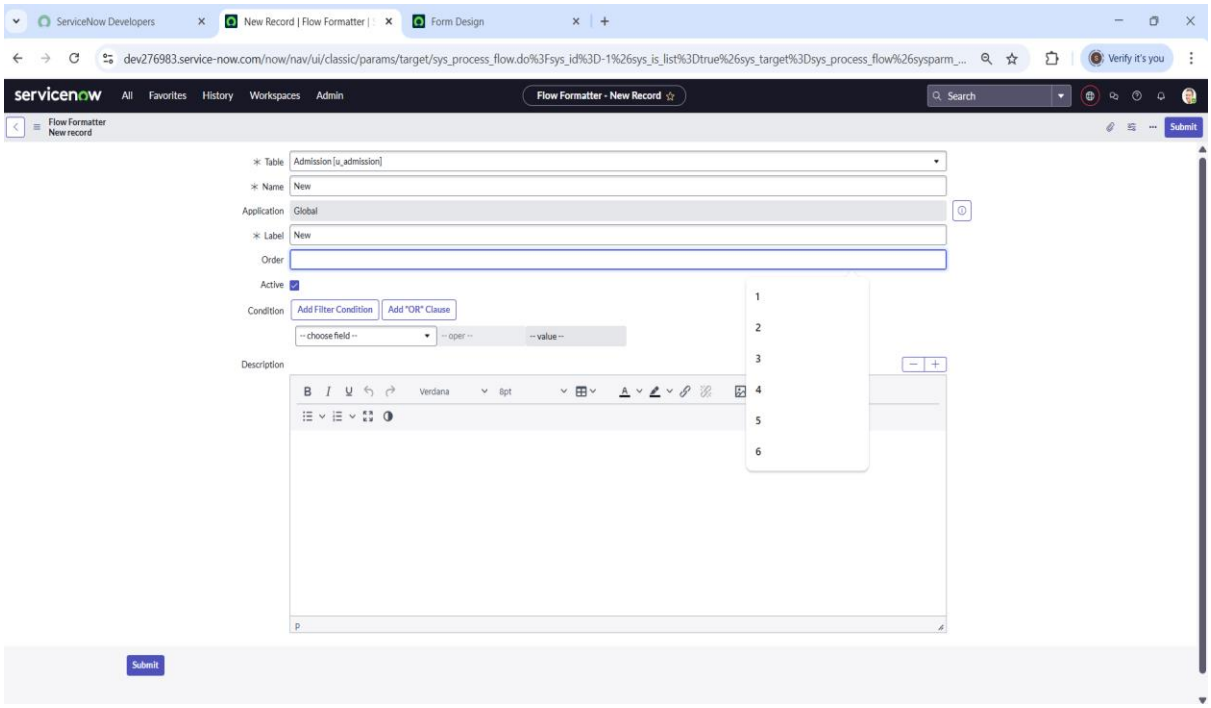




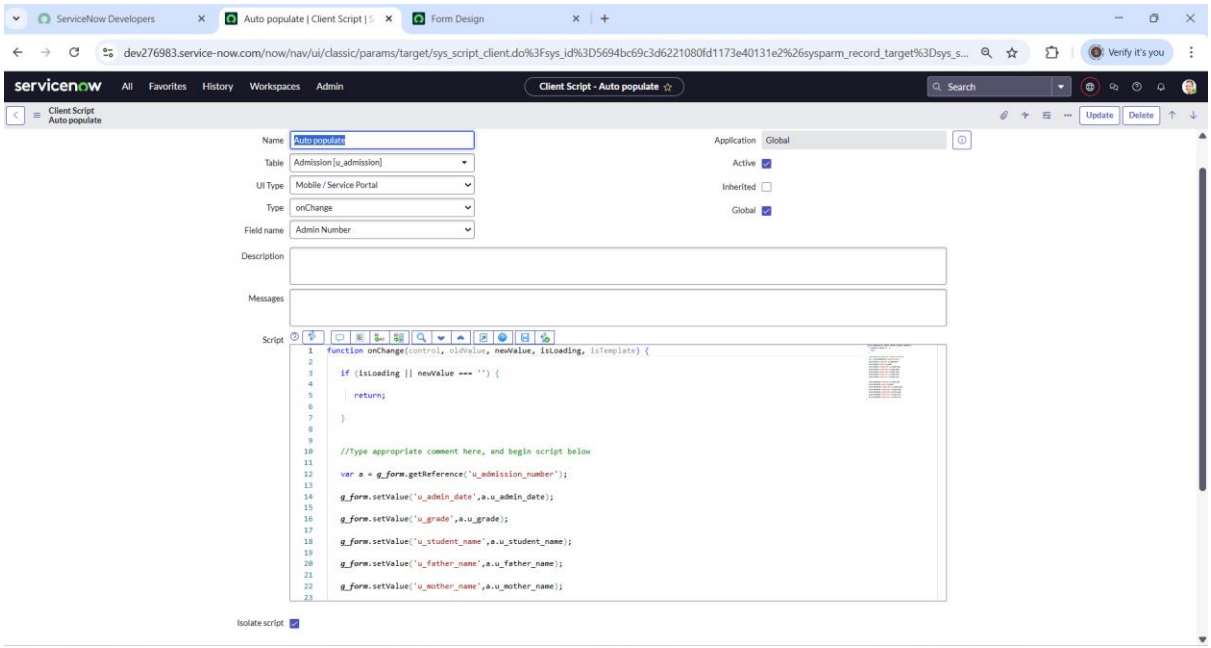
- Creating Number Maintenance for Admin Number



- **Process Flow**

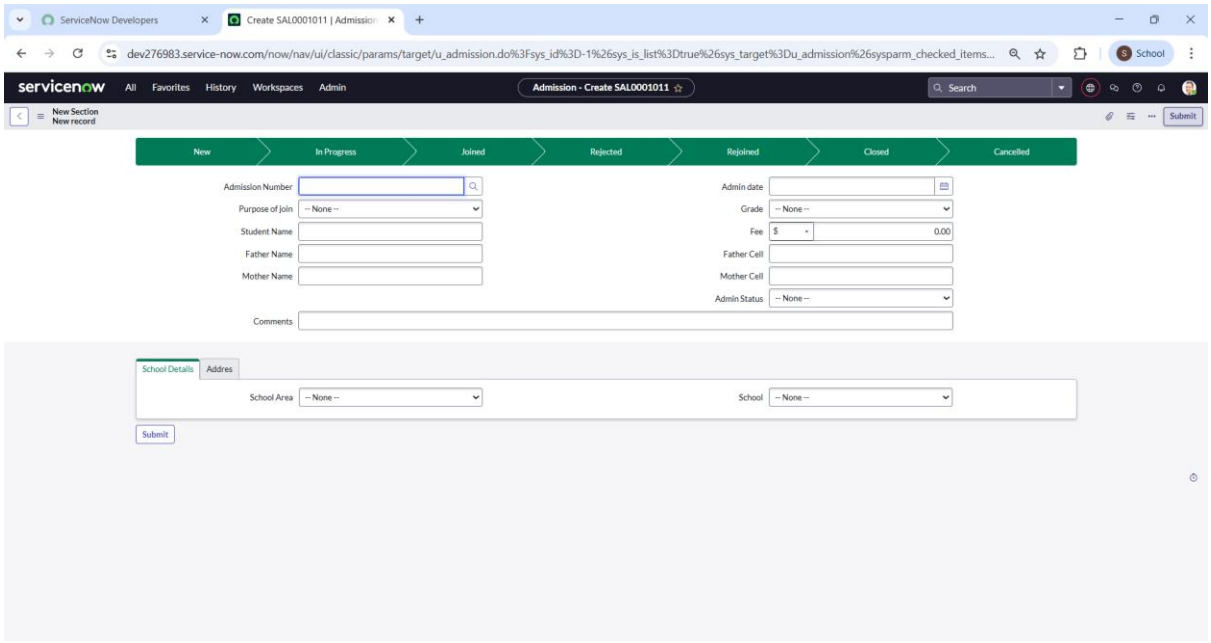


- Client Script

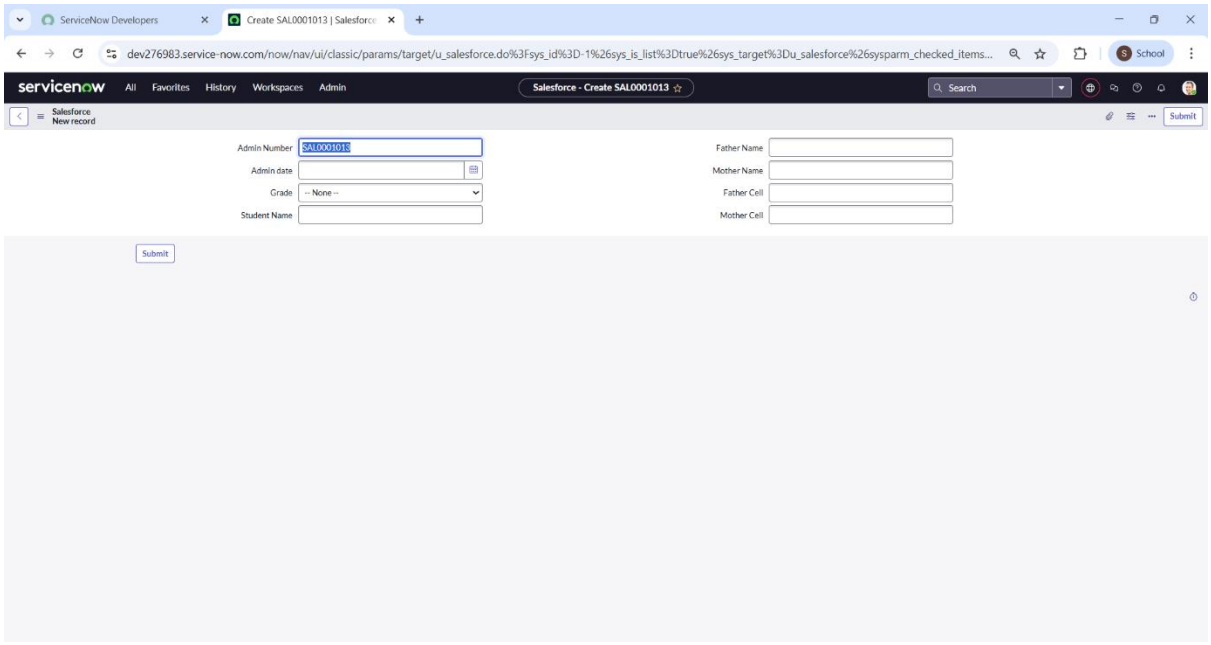


- Result

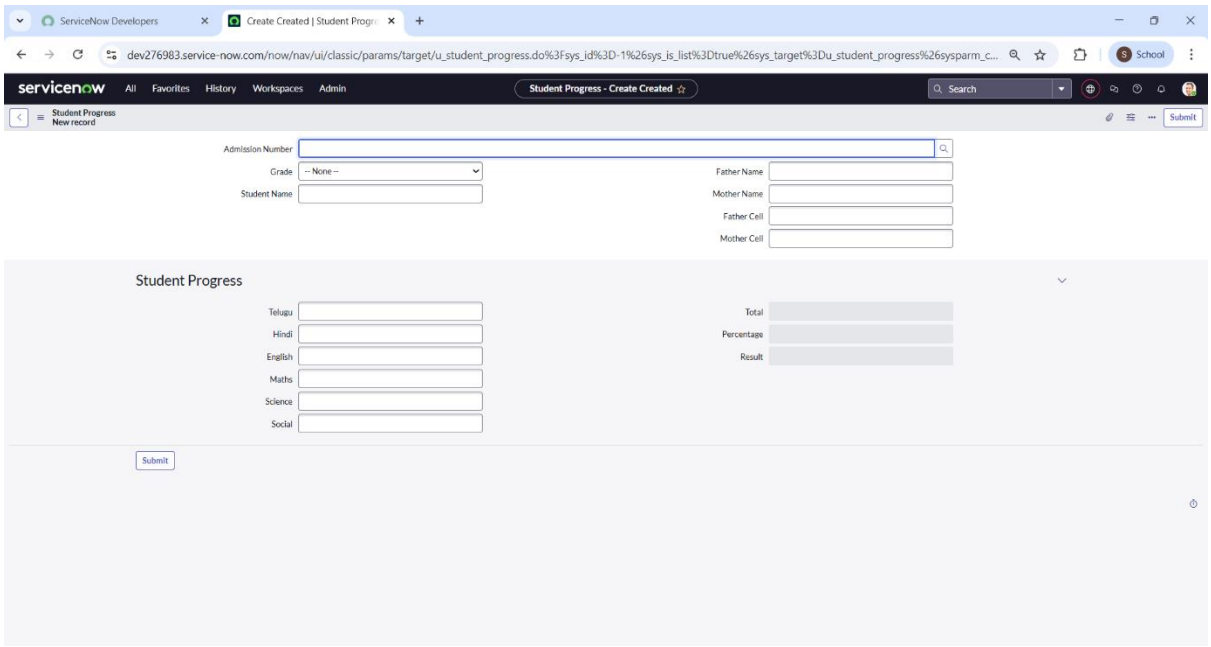
Admission Table



Salesforce Table



Student Progress Table



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

GitHub Link:

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

Video Link:

https://drive.google.com/drive/folders/1A4u_usofVHqnOfOaxFvoheE26Vq32-bv