

## Educational Organisation Using ServiceNow

### ◆ Abstract

The “**Educational Organisation Using ServiceNow**” project presents a modern, automated approach to managing academic and administrative operations in educational institutions. Developed on the **ServiceNow** platform, this system demonstrates how low-code development can simplify complex processes like admissions, academic progress tracking, and record management.

By integrating **automation**, **data centralization**, and **custom workflows**, the project removes dependency on paper-based systems and minimizes human error. Administrators can manage students and their progress efficiently, while students benefit from a transparent and reliable interface. This work highlights how **ServiceNow’s extensibility** can serve sectors beyond IT, offering scalable solutions tailored for educational ecosystems.

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### ◆ Problem Statement

Many educational institutions continue to rely on manual or semi-digital systems for admissions, student data handling, and performance tracking. This often results in:

- Fragmented and inconsistent record-keeping
- Inefficiencies in processing admissions and evaluations
- Time-consuming calculations prone to human error
- Lack of traceability in academic data

To address these challenges, this project proposes a **centralized ServiceNow application** that automates student-related workflows, ensuring **accuracy, accessibility, and improved decision-making** in academic management.

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### ◆ Objectives

- Design a **modular and scalable** educational management system on ServiceNow.
- Digitize and automate the **student admission** process.
- Enable **real-time academic calculations** (total, percentage, and results).
- Enhance usability with **dynamic forms and auto-population**.

- Organize data using **custom tables and structured layouts**.
  - Improve transparency through **visual process flows**.
  - Reduce manual effort and data errors using automation and validations.
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#### ◆ Tools and Technologies Used

- **ServiceNow Personal Developer Instance**
  - **Form Designer & Table Configuration**
  - **Client Scripts (JavaScript)**
  - **Business Rules & UI Policies**
  - **Process Flow Designer**
  - **Number Maintenance Module**
  - **Local Update Sets**
  - **ServiceNow Studio** for scoping and application packaging
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#### ◆ System Modules and Functionalities

##### 1. Salesforce Table — Student Core Data

This table serves as the **foundation** for the entire system, storing essential student information.

##### Key Fields:

- Auto-generated *Admin Number* (unique identifier)
- *Student Name, Grade*
- *Father's Name, Mother's Name*
- *Parent Contact Numbers*
- *Admission Date*

##### Configuration Details:

- The table is **extensible**, allowing future child tables (e.g., Admission, Progress).
- *Admin Number* generated dynamically via **Number Maintenance**.
- Clean layout with logically grouped sections for readability.

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## 2. Admission Table — Managing Student Enrollment

This table extends the Salesforce Table and records **admission-related information**.

### Core Fields:

- *Admission Status* (New, InProgress, Joined, etc.)
- *Purpose of Joining*
- *Pincode, Mandal, City, District* (auto-filled)
- *School Name, School Area*

### Key Configurations:

- Dropdowns for *School, Area, and Status*.
- *Auto-fill logic* that retrieves student details based on Admin Number.
- *Pincode-based scripting* to auto-update location fields.
- Integrated **Process Flow** for visualizing admission lifecycle.

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## 3. Student Progress Table — Academic Performance Tracking

This table manages **student academic results**.

### Fields Included:

- Marks for six subjects (*Telugu, Hindi, English, Maths, Science, Social*)
- *Total Marks* (auto-calculated)
- *Percentage* (auto-calculated)
- *Result* (Pass/Fail)

### Functionality:

- *Client scripts* dynamically compute totals, percentages, and results.
- *Read-only calculated fields* maintain data consistency.
- Form layout optimized for quick review of academic details.

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### ◆ Configuration Activities

Instance Setup :

1. Created a developer account at [developer.servicenow.com](https://developer.servicenow.com).
2. Requested and launched a **Personal Developer Instance**.
3. Configured application scope and access permissions.

#### **Update Set Creation :**

- Update Set Name: **Educational Organisation**
- Tracks all configurations, scripts, forms, and flows for portability.

#### **Table Configuration :**

- Created three custom tables: **Salesforce**, **Admission**, and **Student Progress**.
- Extended child tables from Salesforce for inheritance.
- Enabled visibility in the Application Menu for easy access.

#### **Form Design :**

- Used **Form Designer** to organize fields logically.
- Created distinct sections for Personal, Academic, and Contact details.
- Ensured mobile responsiveness and dynamic field visibility.

#### **Number Maintenance**

- Configured **auto-numbering** for the Admin Number field.
- Applied a custom padded format for unique identification.

#### **Process Flow Designer**

- Designed a visual admission flow:

New → InProgress → Joined → Rejected → Rejoined → Closed → Cancelled

- Enhanced tracking and transparency of student admission status.

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### **◆ Client Script Implementations**

#### **A. Auto-Populate Student Details**

- Triggered when *Admin Number* is selected.
- Fetches student data from Salesforce and fills corresponding Admission fields.
- Disables populated fields to prevent user modifications.

#### **B. Location Autofill (Pincode Logic)**

- Triggered when *Pincode* is entered.
- Automatically updates *Mandal*, *City*, and *District* using pre-defined mappings.

### C. Disable Calculation Fields

- Prevents manual editing of *Total Marks*, *Percentage*, and *Result*.
- Triggered during form load on the Progress Table.

### D. Total Marks Calculation

- Triggered onChange of subject marks.
- Sums all six subjects and auto-populates the *Total* field.

### E. Percentage Calculation

- Triggered when *Total* changes.
- Formula: **(Total / 600) × 100**

### F. Result Evaluation

- Triggered when *Percentage* changes.
- Marks student as **Fail** if <60%, otherwise **Pass**.
- Includes validation to prevent values beyond 0–100%.

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## ◆ Outcomes and Benefits

- **Streamlined Admissions:** Automated workflows reduce manual processing.
- **Accurate Reports:** Eliminates errors in total and percentage calculations.
- **Responsive Forms:** Dynamic input handling improves user experience.
- **Data Integrity:** Field validations ensure consistent, high-quality data.
- **Operational Visibility:** Process Flows offer a clear view of student status.
- **Future-Ready:** Designed for easy extension into faculty, exams, and fee modules.

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## ◆ Conclusion

The **Educational Organisation Using ServiceNow** project showcases how a low-code platform can transform educational operations. It combines automation, reliability,

and scalability to build a fully functional system beyond traditional IT management use cases. The system empowers institutions to manage students efficiently, maintain academic accuracy, and prepare for digital transformation in the education sector.

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◆ **Future Enhancements**

- Integration with email/SMS for admission updates
- Mobile-compatible UI for on-the-go access
- Interactive dashboards for analytics and reporting
- Faculty and classroom management modules
- Fee management and payment tracking
- Report card and certification generation
- Integration with Learning Management Systems (LMS)