

Educational Organisation Using ServiceNow

1. Project Overview

The Educational Management System (EMS) is a streamlined solution built on the ServiceNow platform to enhance administrative efficiency within educational institutions. It manages student and teacher data, simplifies the admission process, and provides tools for tracking academic progress. By implementing EMS in ServiceNow, institutions benefit from a user-friendly, customizable, and automated environment that supports better decision-making and operational management.

2. Setting Up the ServiceNow Instance

Sign Up for a Developer Account

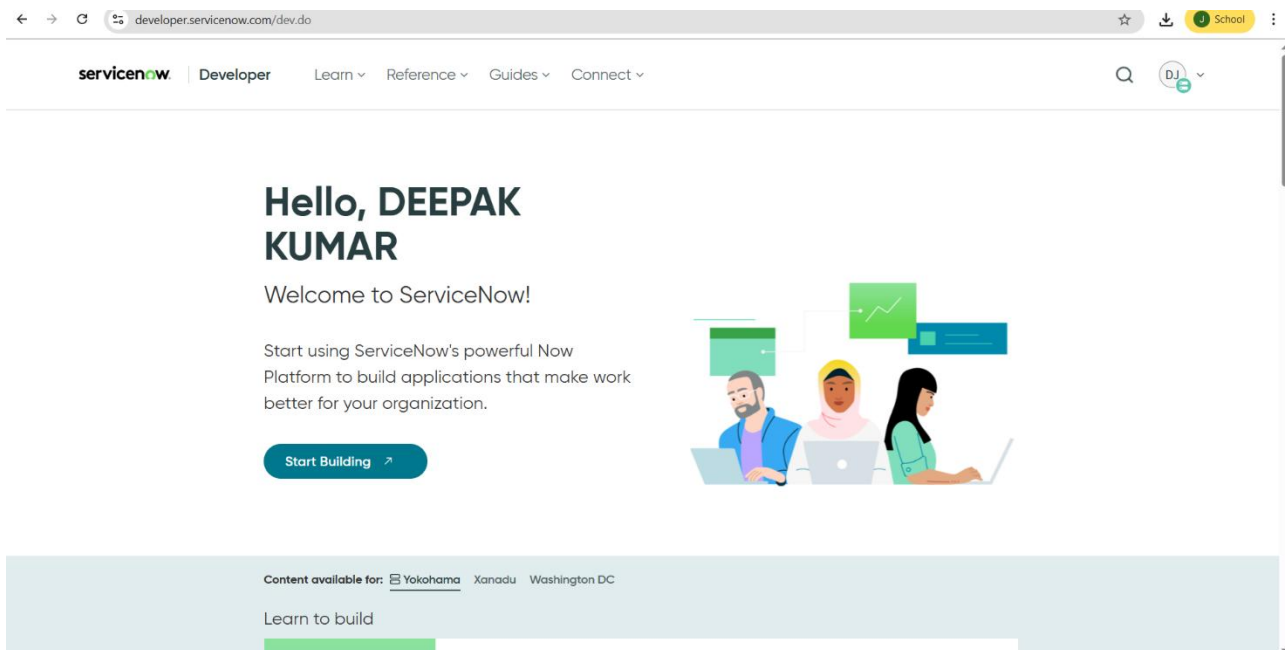
- Visit the ServiceNow Developer Portal at <https://developer.servicenow.com>.
- Create a new developer account by providing the required information.

Request a Personal Developer Instance

- Log in to your developer account.
- Navigate to the “Manage > Instance” section.
- Click “Request Instance” and choose the latest available release.
- You will receive an email with the instance details (URL, username, and password).

Access Your Instance

- Open the instance URL received via email.
- Log in using the provided credentials to access your personal ServiceNow instance.

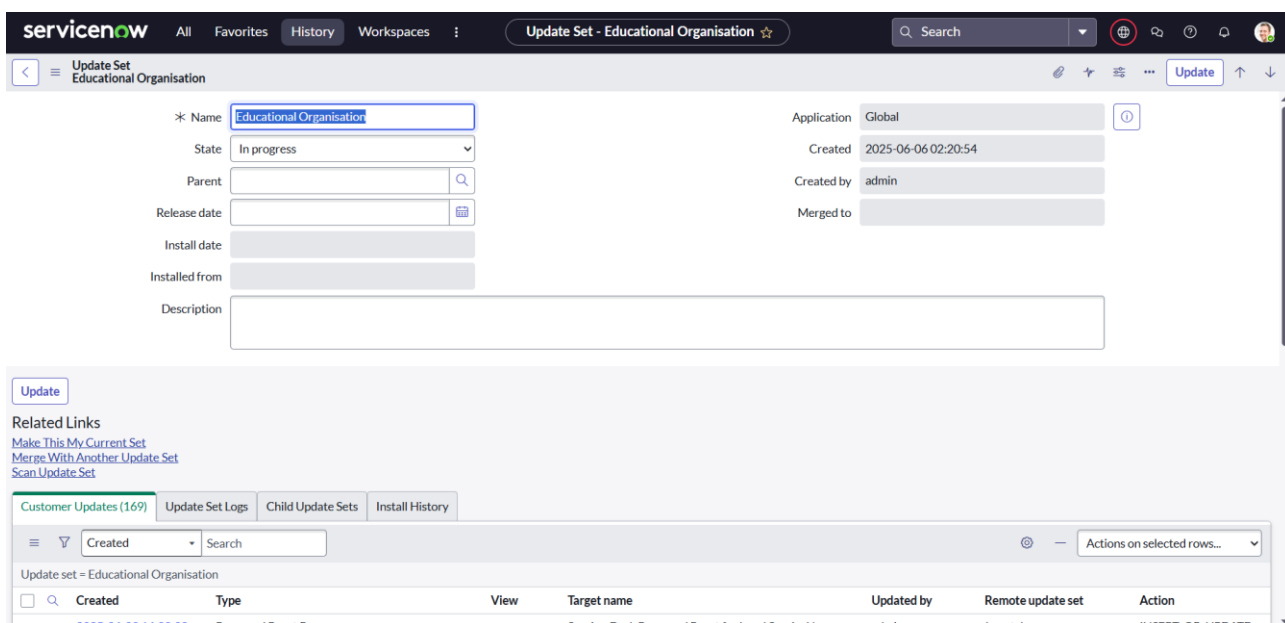


3. Creating an Update Set

An Update Set tracks all configuration changes made in a ServiceNow instance, enabling migration between instances.

Steps:

- Navigate to All > Local Update Sets.
- Click New to create an update set.
- Enter the name "Educational Organisation" and submit.
- Click Make Current to activate the update set.



4. Creating the Salesforce Table

The Salesforce table manages core student information.

Steps:

- Navigate to All > Tables > New.
- Enter the label "Salesforce". The system will auto-generate the table name.
- Add required fields, including:
 - Admin Number (Set Display to True, mark Extensible, and set Dynamic Default to "Get Next Padded Number").
 - Grade (Configure as a choice field with values such as Primary, Secondary, etc.).

The screenshot shows the 'Form Design' interface for the 'Admission [u_admission]' table. The interface is divided into a left sidebar and a main design area. The sidebar contains a 'Fields' section with a list of fields: Admin Number, Class, Created, Created by, Updated, Updated by, and Updates. Below this is a 'Formatters' section with options: Contextual Search Results, Process Flow, and Ratings. The main design area shows the table structure with sections: 'Admission [u_admission]' (1 Column), 'Activities (filtered) (Formatter)' (2 Column), 'Comments' (1 Column), 'School Details' (2 Column), and 'Address' (2 Column). Each section contains fields with configuration icons (gear and eye) to the right. The 'Admission [u_admission]' section has fields for Admission Number, Purpose of join, Student Name, Father Name, Mother Name, Admin Date, Grade, Fee, Father Cell, Mother Cell, and Admin Status. The 'School Details' section has fields for School Area and School. The 'Address' section has fields for Pincode and Area. The 'Comments' section has a single field for Comments.

5. Creating the Admission Table

This table manages data related to student admissions and extends the Salesforce table.

Steps:

- Navigate to Tables > New.
- Label the table as "Admission".
- Set "Extends Table" to Salesforce.
- Add to application menu for visibility.
- Add necessary fields such as Admission Number, Grade, School, and Pincode.

- Create choice fields for Admin Status, Purpose of Join, School, Pincode, and School Area.

The screenshot shows the 'Form Design' interface for the 'Admission' table. The sidebar on the left contains a 'Fields' section with a list of fields: Admin Number, Class, Created, Created by, Updated, Updated by, and Updates. Below this is a 'Formatters' section with options: Contextual Search Results, Process Flow, and Ratings. The main workspace displays a form layout with several sections: 'Admission [u_admission]' (1 Column), 'Activities (filtered) (Formatter)' (1 Column), 'School Details' (2 Column), and 'Address' (2 Column). Each section contains various fields with configuration icons (gear and eye). The 'School Details' section includes 'School Area' and 'School'. The 'Address' section includes 'Pincode' and 'Area'. A 'Comments' section is also visible with a text input and a 'Comments' button.

6. Configuring Forms

Form configuration improves the user experience by allowing intuitive interaction with data.

Salesforce Table Form:

- Navigate to System Definition > Tables.
- Search for "Salesforce" and select Configure > Form Design.
- Add and arrange relevant fields.

Admission Table Form:

- Repeat the same process as above for the "Admission" table.

Student Progress Table Form:

- Use the same method to configure the Student Progress table.

7. Number Maintenance for Admin Numbers

To automatically generate Admin Numbers in a specified format:

Steps:

- Navigate to Number Maintenance > New.
- Create a record for Admin Number.

- Set an appropriate prefix (e.g., ADM) and define the number format (e.g., ADM0001).
- Submit the record.

The screenshot shows the ServiceNow interface for configuring a Number field. The breadcrumb trail is 'Number - SAL'. The configuration form includes the following fields:

- Table:** Salesforce
- Prefix:** SAL
- Number:** 1,000
- Application:** Global
- Number of digits:** 7

At the bottom, there is a 'Related Links' section with a link to 'Show Counter'.

8. Creating Process Flows

ServiceNow Process Flows automate and visualize processes such as the student admission lifecycle.

Steps:

- Navigate to Process Flow > New.
- Provide details including name, label, and description.
- Define stages such as New, InProgress, Joined, Rejected, Rejoined, Closed, and Cancelled.
- Save and publish the process flow.

ORDER: Joined >> Rejected >> Rejoined >> Closed >> Cancelled

9. Client Scripts for Automation

Client Scripts automate actions and enforce form behavior.

Auto-Populate Admission Fields

Populates fields like Grade and Student Name when Admission Number is selected.

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
    if (isLoading || newValue === '') return;
    var admission = g_form.getReference('u_admission_number');
    g_form.setValue('u_grade', admission.u_grade);
    g_form.setValue('u_student_name', admission.u_student_name);
}
```

Pincode-Based Field Update

Automatically fills Mandal, City, and District based on the entered Pincode.

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
    if (isLoading || newValue === '') return;
    var pincode = g_form.getValue('u_pincode');
```

```

if (pincode === '509358') {
  g_form.setValue('u_mandal', 'Kadthal');
  g_form.setValue('u_city', 'Kadthal');
  g_form.setValue('u_district', 'Ranga Reddy');
}
}

```

Disable Fields for Student Progress

Prevents manual entry into specific fields on form load.

```

function onLoad() {
  g_form.setDisabled('u_total', true);
  g_form.setDisabled('u_percentage', true);
  g_form.setDisabled('u_result', true);
}

```

Total Marks Calculation

Calculates the total score from subject fields automatically.

```

function onChange(control, oldValue, newValue, isLoading, isTemplate) {
  var total = parseInt(g_form.getValue('u_telugu')) +
    parseInt(g_form.getValue('u_hindi')) +
    parseInt(g_form.getValue('u_english')) +
    parseInt(g_form.getValue('u_maths')) +
    parseInt(g_form.getValue('u_science')) +
    parseInt(g_form.getValue('u_social'));
  g_form.setValue('u_total', total);
}

```

10. Results

The implemented Educational Management System on ServiceNow provides:

- Centralized management of student and admission data.
- Automated workflows for consistent and error-free operations.
- Dynamic forms and scripts that enhance data entry and validation.
- Seamless tracking of student progress and admission stages.

Screenshots should be included for:

- Table and form configurations
- Process flow
- Script execution in forms

SALESFORCE RECORD

servicenow

AllFavoritesHistoryAdmin

Salesforce - Create SAL0001008

Search

<SalesforceNew record

Submit

Admin NumberSAL0001008

Admin Date

Grade-- None --

Student Name

Father Name

Mother Name

Mother Cell

Father Cell

Submit

ADMISSION RECORD

<AdmissionNew record

Submit

Admission Number

Purpose of join-- None --

Student Name

Father Name

Mother Name

Comments

Admin Date

Grade-- None --

Fee\$0.00

Father Cell

Mother Cell

Admin Status-- None --

School DetailsAddress

School AreaNear Market

School-- None --

Submit

PROGRESS RECORD

The screenshot shows the ServiceNow interface for creating a new record in the 'Progress' table. The top navigation bar includes the ServiceNow logo, tabs for 'All', 'Favorites', 'History', and 'Admin', and a 'Progress - Create Created' button. A search bar is also present. Below the navigation bar, the form is titled 'New Section New record'. The form contains several input fields: 'Admission Number' (a long text field with a search icon), 'Admission Number.Grade' (a dropdown menu with '-- None --' selected), 'Admission Number.Father Name', 'Admission Number.Mother Name', 'Admission Number.Father Cell', and 'Admission Number.Mother Cell'. Below these fields is a section titled 'Student Progress' which contains a table with columns for 'Telugu', 'Hindi', 'English', 'Maths', 'Science', 'Social', 'Total', 'Percentage', and 'Result'. Each column has a corresponding input field. A 'Submit' button is located at the bottom left of the form.

Student Progress								
Telugu		Total						
Hindi		Percentage						
English		Result						
Maths								
Science								
Social								

11. Advantages

- Accessible from any location with cloud support.
- Automation reduces manual workload and increases accuracy.
- Customizable for various educational institution needs.
- Integrated system for admissions, student records, and performance.
- Secure and role-based access control.

12. Disadvantages

- Requires prior knowledge or training in ServiceNow for effective use.
- Complex customization may be time-consuming.
- Enterprise usage may involve licensing costs.

13. Future Scope

- Integration with analytics tools like Tableau or Power BI for reporting.
- Expansion to include teacher scheduling and performance tracking.
- Mobile application support using ServiceNow Mobile Studio.
- API-based connectivity with external systems and student databases.
- AI-driven insights to monitor and predict student performance trends.

YOUTUBE LINK :

<https://youtu.be/VN2tI-MZ43M?si=68WLyZG4m-X6xoz1>