SRI VIDYA COLLEGE OF ENGINEERING & TECHNOLOGY

VIRUDHUNAGAR 626005

Approved by AICTE, New Delhi and Affiliated to

Anna University, Chennai

Subject Name : ServiceNow Administator (NM1051)

(Under Naan Mudhalvan Scheme)

Project Title : School Organizations Using ServiceNow

Team ID : NM2025MID04738

Team Members

P. Mathi Vadhana Sri - 922022104021

T.Ishwarya Maya -922022104009

V. Pranesh Sundar -922022104026

K. Mahesh -922022104014

School Organizations Using ServiceNow

1. Objective

The main objective of this project is to To design and implement a **School Organization Management System** using **ServiceNow** that streamlines the management of academic departments, staff, students, and events by automating workflows, improving record tracking, and enabling communication within the school ecosystem.

2. Introduction

The *School Organization Management System* in ServiceNow is designed to simplify and automate the administrative processes within educational institutions. It provides a centralized platform to manage students, teachers, departments, and events efficiently. By leveraging ServiceNow's low-code development environment, the system enables schools to handle tasks such as admissions, attendance, leave approvals, and event scheduling through automated workflows. This not only reduces manual effort but also ensures transparency, accuracy, and faster communication among staff and students. The project aims to enhance operational efficiency and support better decision-making through real-time data access and reporting tools.

3. Project Scope

- Development of tables for Students, Teachers, Classes, Departments, and Events.
- Implementation of dashboards and reports for monitoring academic and administrative data
- Ensuring data consistency, security, and through ServiceNow's low-code platform.

5. Tools and Technologies Used

Tool/Technology	Description
ServiceNow	Cloud platform for workflow automation
Workflow Editor	To capture and move customizations
Tables & Fields	Used to store expense records
Forms & Lists	For user interaction and record display
Reports Module	For data visualization and analytics
Browser	Any modern browser (Chrome/Edge)

6. System Requirements

Hardware Requirements

- Processor: Dual Core or higher
- RAM: Minimum 4 GB

Software Requirements

- Web Browser (Google Chrome preferred)
- ServiceNow Developer Instance
- ServiceNow Account (developer.servicenow.com)
-

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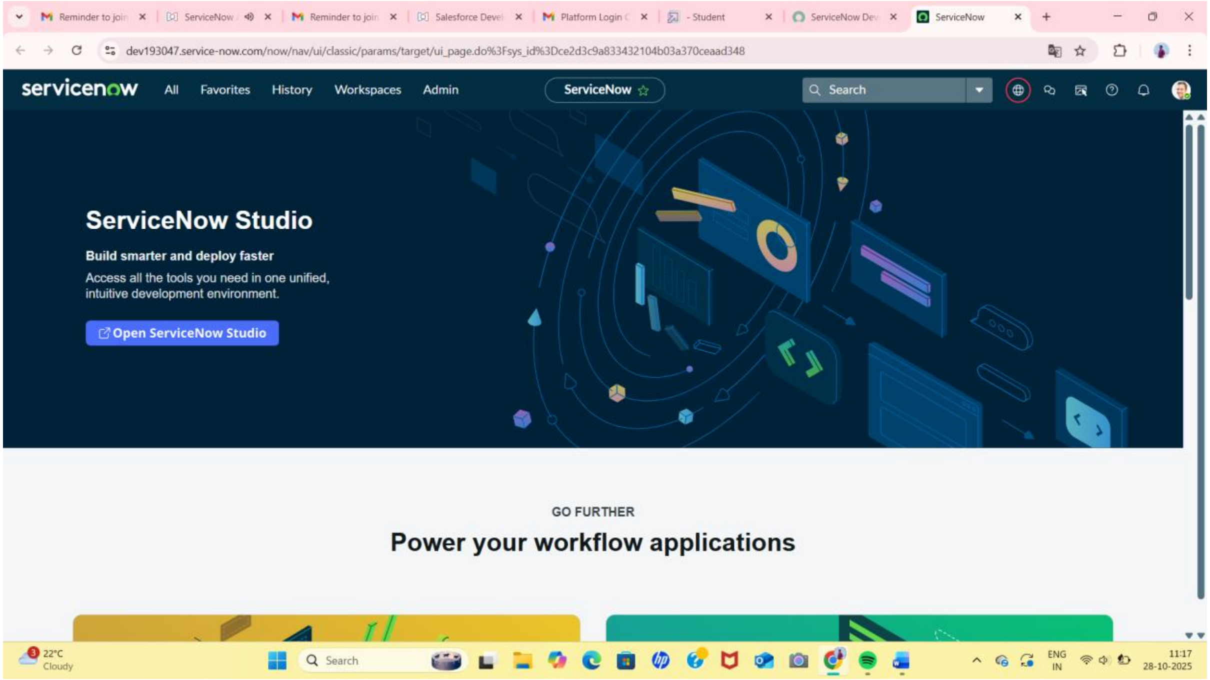
7. Project Implementation Steps

Step 1: Setting up ServiceNow Instance

1. Visit https://developer.servicenow.com
2. Sign up for a free developer account.
3. Log in to your instance to start customizing.



dev193047.service-now.com/now/nav/ui/classic/params/target/ui_page.do%3Fsys_id%3Dce2d3c9a833432104b03a370ceaad348

ServiceNow Studio

Build smarter and deploy faster

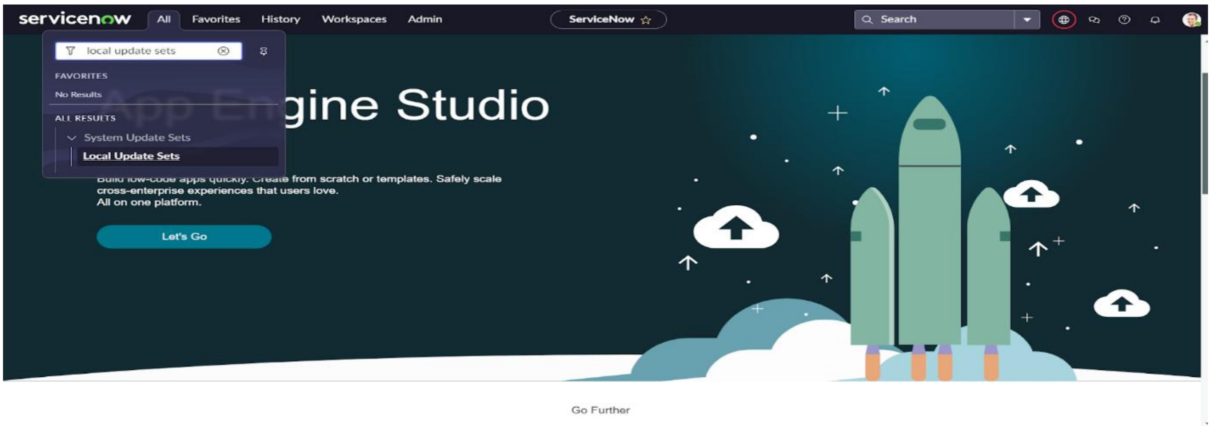
Access all the tools you need in one unified, intuitive development environment.

GO FURTHER

Power your workflow applications

Step 2: Creating an Update Set in ServiceNow

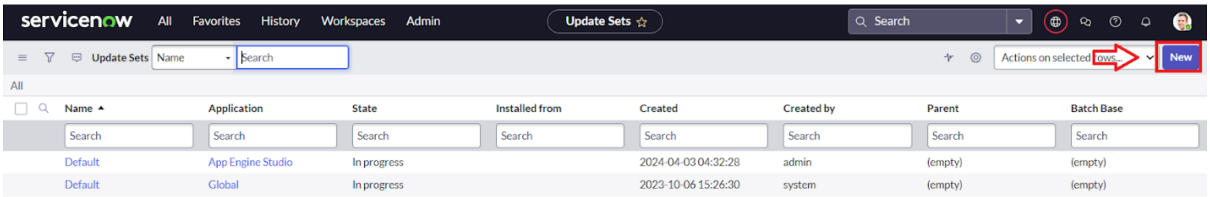
1. Navigate to **All → Local Update Sets** from the Application Navigator.



App Engine Studio

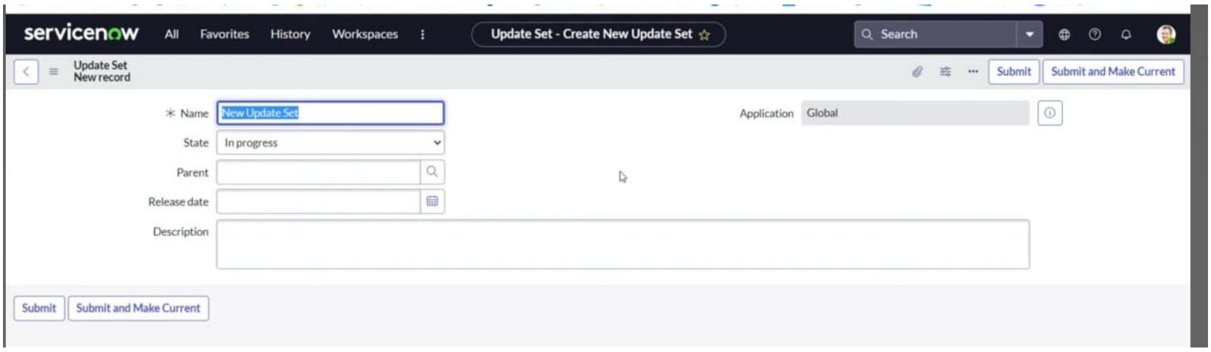
Build low-code apps quickly. Create from scratch or templates. Safely scale cross-enterprise experiences that users love.
All on one platform.

2.Click on the **New** button to create a new update set.



Name ▲	Application	State	Installed from	Created	Created by	Parent	Batch Base
Default	App Engine Studio	In progress		2024-04-03 04:32:28	admin	(empty)	(empty)
Default	Global	In progress		2023-10-06 15:26:30	system	(empty)	(empty)

3.In the form, enter the **Name** as *Educational Organisation*.



* Name	New Update Set
State	In progress
Parent	
Release date	
Description	
Application	Global

4.Click **Submit** to save the update set

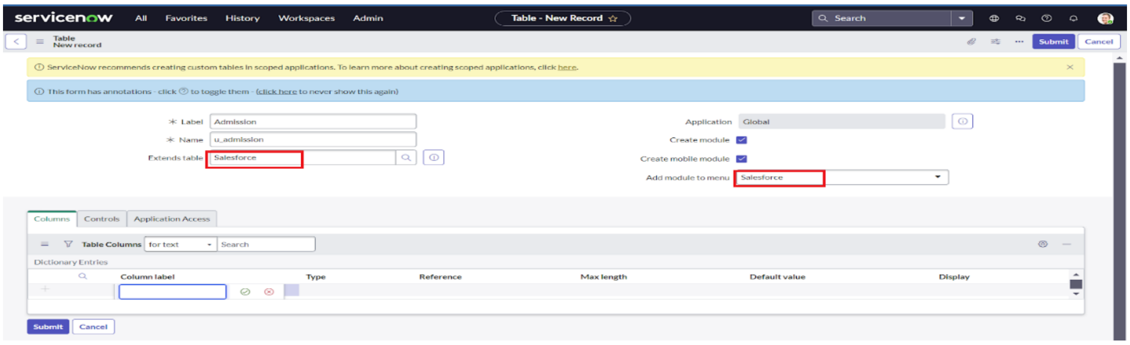
5.After submission, click **Make Current** to set it as the active update set.

Step 3: Creating Salesforce Table in ServiceNow

1. Navigate to **All → Tables** from the Application Navigator.
2. Click on the **New** button to create a new table.
3. In the form, enter the **Label** as *Salesforce* and click on the **Name** field — the system will automatically generate the API name.
4. Create the required **columns** by double-clicking on the *Column label* area, entering the label names, selecting the appropriate data **Type**, and clicking the **tick mark** to save each column.
5. For the column **"Admin Number"**, set **Display = True** and then **right-click on the header bar → Save** the table.
6. Go to **Controls** and **Enable Extensible** to allow other tables to extend this table.
7. Open the **"Admin Number"** column → scroll to **Related Links → Advanced View** → under **Default Value**, enable **Use dynamic default** and select **Get Next Padded Number**. Then click **Update** to save changes.
8. For the **"Grade"** column, open **Choices**, and enter the **Label, Value, and Sequence** as per the given data.

Step 4: Creating Admission Table in ServiceNow

1. Navigate to **All → Tables** and click on the **New** button to create a new table.
2. Enter the **Label** as *Admission* to represent the admission details of students.
3. Under the **Extends Table** field, select **Salesforce** to inherit its structure and functionalities.
4. Check the option **Add module to menu → Salesforce** to make the Admission table accessible under the Salesforce application menu.

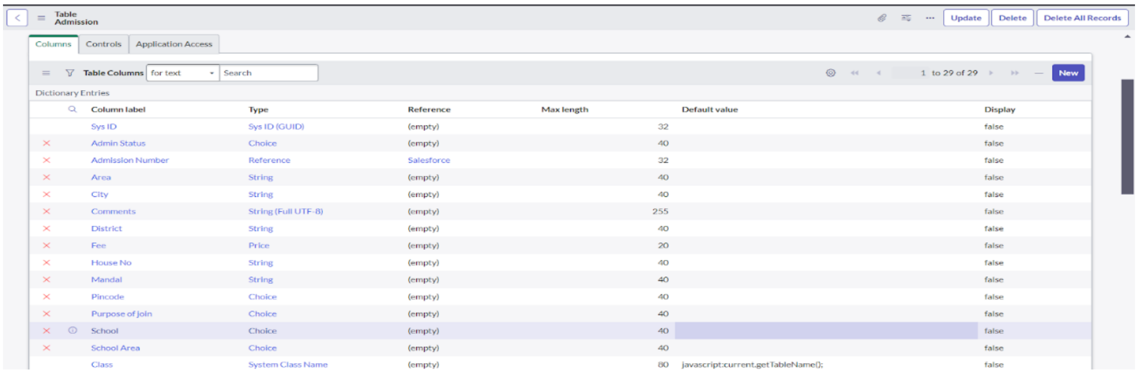


ⓘ ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click here.

ⓘ This form has annotations - click ⓘ to toggle them - (click here to never show this again)

✱ Label	Admission	Application	Global
✱ Name	u_admission	Create module	☑
Extends table	Salesforce	Create mobile module	☑
		Add module to menu	Salesforce

5. Create all the required **fields (columns)** as per the project specifications, assigning appropriate **field types** such as String, Choice, Integer, or Reference.

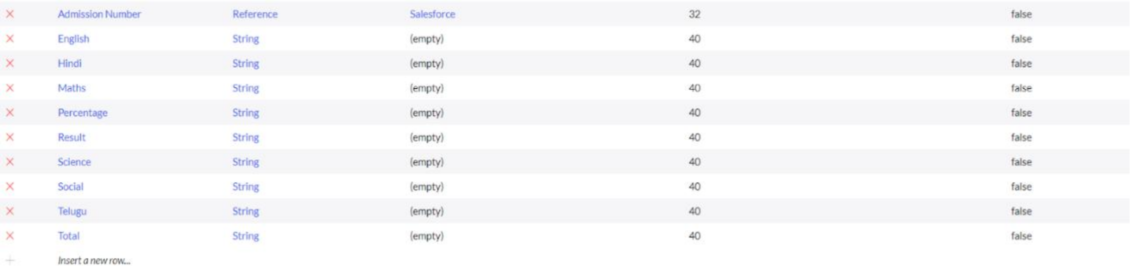


Column label	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32		false
Admin Status	Choice	(empty)	40		false
Admission Number	Reference	Salesforce	32		false
Area	String	(empty)	40		false
City	String	(empty)	40		false
Comments	String (Full UTF-8)	(empty)	255		false
District	String	(empty)	40		false
Fee	Price	(empty)	20		false
House No	String	(empty)	40		false
Mandal	String	(empty)	40		false
Pincode	Choice	(empty)	40		false
Purpose of join	Choice	(empty)	40		false
School	Choice	(empty)	40		false
School Area	Choice	(empty)	40		false
Class	System Class Name	(empty)	80	javascript:current.getTableName();	false

6. For each field that requires fixed options, define **Choice values** as follows:
   - **Admin Status:** Pending, Approved, Rejected
   - **Pincode:** (Add appropriate pincode values relevant to the school location)
   - **Purpose of Join:** Admission, Transfer, Scholarship, Others
   - **School:** Primary School, High School, Higher Secondary
   - **School Area:** Urban, Rural, Suburban
7. After defining all fields and choices, click **Submit** to save the table.

Step 5: Creating Student Progress Table in ServiceNow

1. Navigate to **All → Tables** and click on the **New** button to create a new table.
2. Enter the **Label** as *Student Progress* to represent the academic performance details of students.
3. Under **Add module to menu**, select **Salesforce** to make this table accessible from the Salesforce application menu.
4. Create all required **fields (columns)** as per the project requirements, such as:
   - **Student Name** – Reference field (linked to Admission Table)
   - **Subject** – String or Choice field
   - **Marks Obtained** – Integer or Number field
   - **Total Marks** – Integer field
   - **Percentage** – Decimal field
   - **Grade** – Choice field (e.g., A, B, C, D, F)
   - **Remarks** – String field for teacher feedback



✕	Admission Number	Reference	Salesforce	32	false
✕	English	String	(empty)	40	false
✕	Hindi	String	(empty)	40	false
✕	Maths	String	(empty)	40	false
✕	Percentage	String	(empty)	40	false
✕	Result	String	(empty)	40	false
✕	Science	String	(empty)	40	false
✕	Social	String	(empty)	40	false
✕	Telugu	String	(empty)	40	false
✕	Total	String	(empty)	40	false
+	Insert a new row...				

5. Save the table once all columns are created and verified.

Step 6: Configuring Table Form for Student Progress Table

1. Open the **Student Progress Table** and click on **Layout Form**.

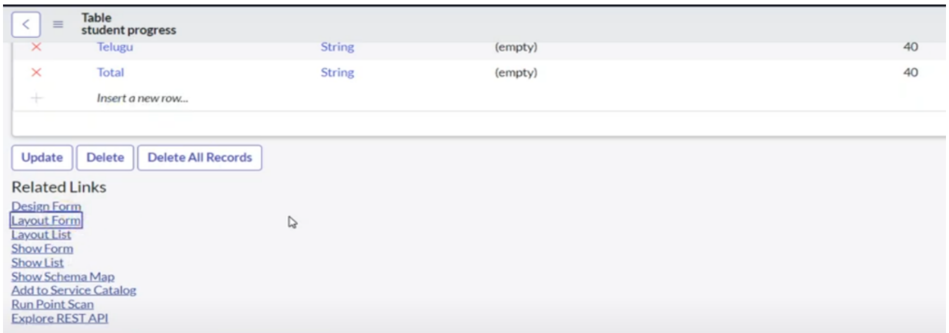
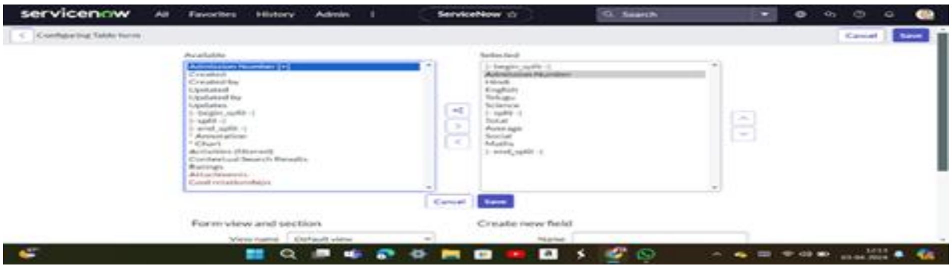


Table
student progress

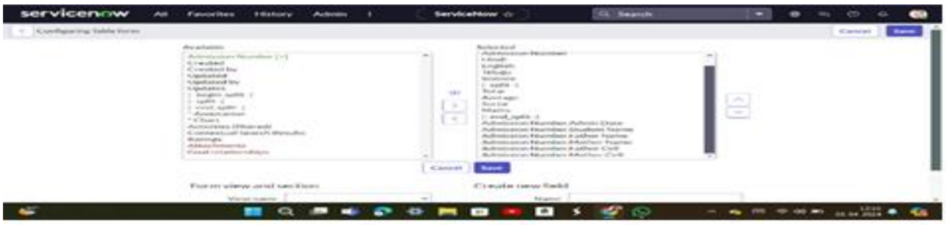
✕	Telugu	String	(empty)	40
✕	Total	String	(empty)	40
+	Insert a new row...			

Related Links
Design Form
Layout Form
Layout List
Show Form
Show List
Show Schema Map
Add to Service Catalog
Run Point Scan
Explore REST API

2. Click the **Admission Number [+]** option.



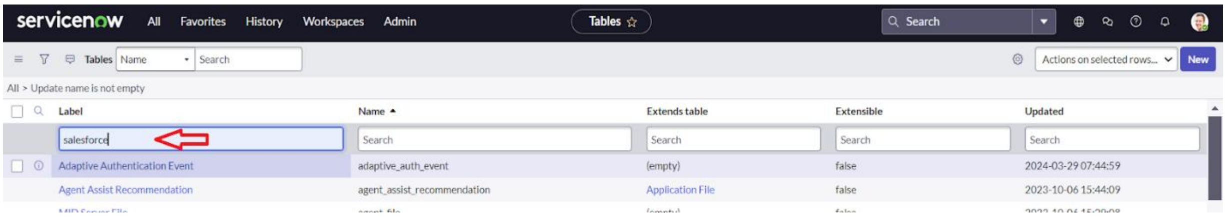
3. From the **Available** list, select the required **Admission Number fields** and move them to the **Selected** side.



4. Click **Save** to apply the changes.

Step 7: Creating Form Design for Salesforce Table

1. Navigate to **All → System Definition → Tables**.



All > Update name is not empty

Label	Name ▲	Extends table	Extensible	Updated
salesforce	Search	Search	Search	Search
Adaptive Authentication Event	adaptive_auth_event	(empty)	false	2024-03-29 07:44:59
Agent Assist Recommendation	agent_assist_recommendation	Application File	false	2023-10-06 15:44:09

2. Search for **Salesforce** in the Label field and open it.

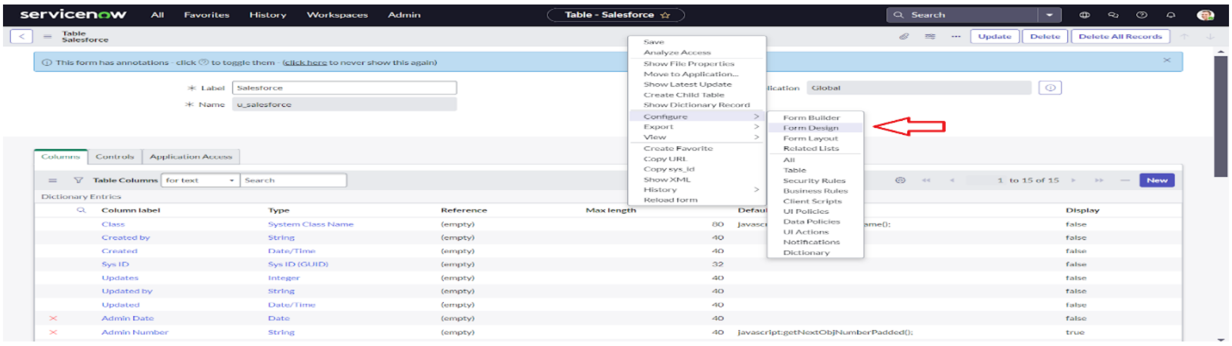


Table
Salesforce

This form has annotations - click ⓘ to toggle them - (click here to never show this again)

Label: Salesforce

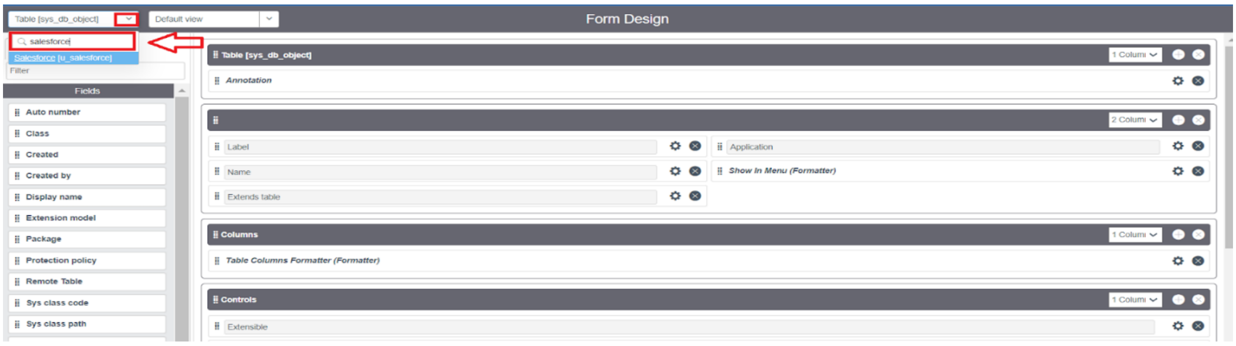
Name: u_salesforce

Application: Global

Dictionary Entries

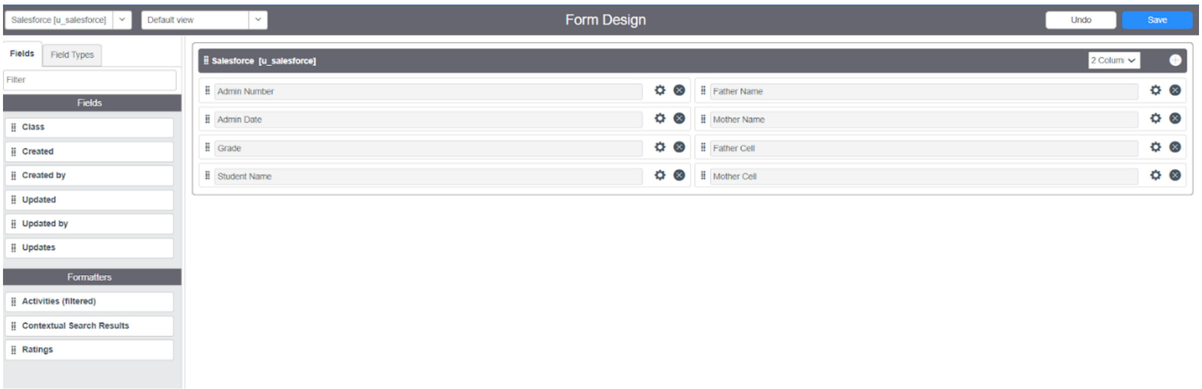
Column label	Type	Reference	Max length	Default value	Display
Class	System Class Name	(empty)	80	javascr[illegible]ame();	false
Created by	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Admin Date	Date	(empty)	40		false
Admin Number	String	(empty)	40	javascript:getNextObjNumberPadded();	true

3. Right-click the header bar and select **Configure → Form Design**.



4. In the dropdown, choose **Salesforce (u_salesforce)**.

5. **Drag and drop** the required fields to arrange them in the desired layout.



6. Click **Save** to apply the form design changes.

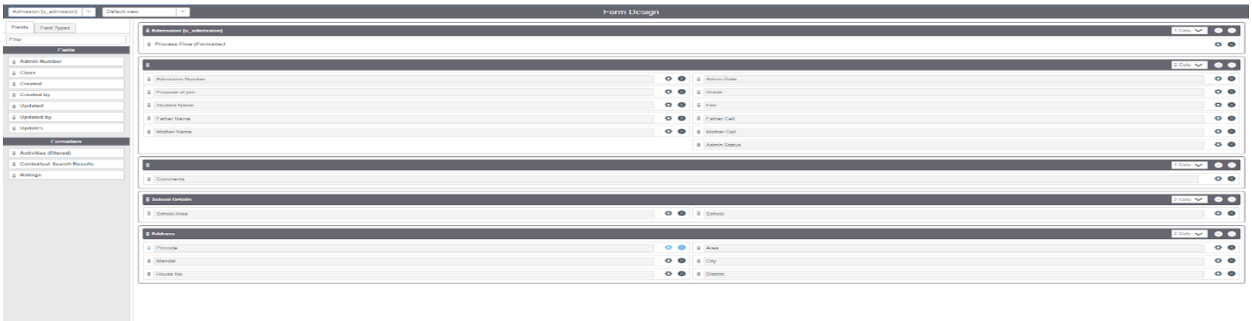
Step 8: Creating Form Design for Admission Table

1. Follow the same steps as in **Activity 1 (Salesforce Form Design)**.

2. Open the **Admission Table** and navigate to **Configure → Form Design**.

3. Arrange and configure the required fields in the desired order on the form.

4. Click **Save** to apply and update the layout.



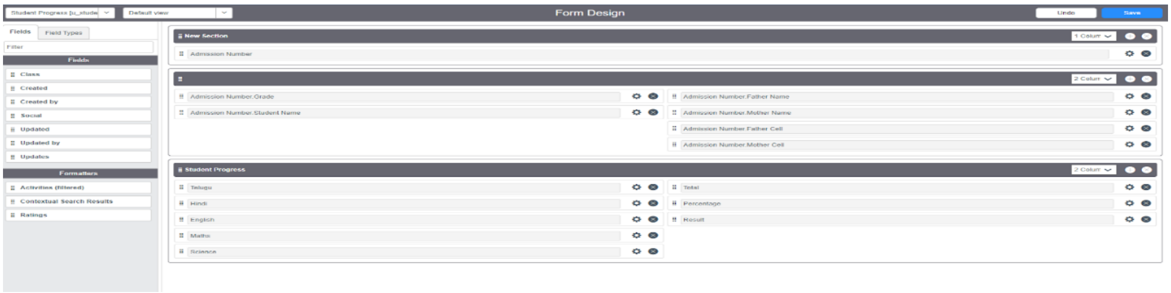
Step 9: Creating Form Design for Student Progress Table

1. Follow the same procedure as in **Activity 1 (Salesforce Form Design)**.

2. Open the **Student Progress Table** and go to **Configure → Form Design**.

3. Arrange and configure all required fields in the appropriate order on the form.

4. Click **Save** to finalize and apply the design.



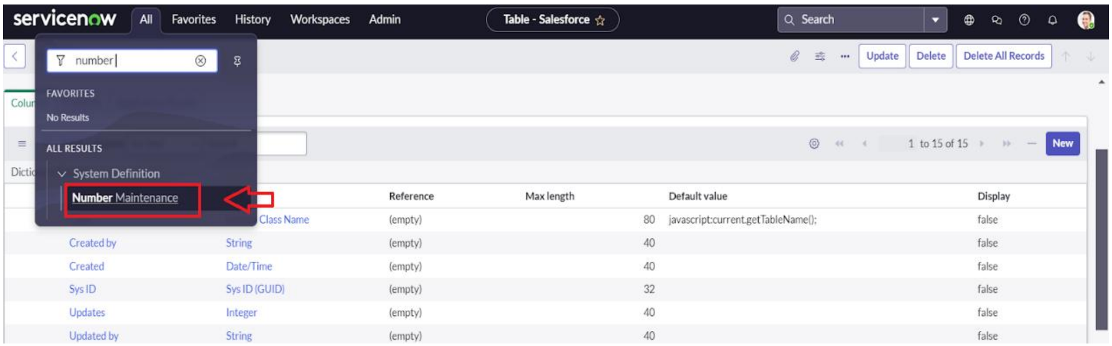
New Section
Admission Number

Admission Number.Grade
Admission Number.Student Name
Admission Number.Father Name
Admission Number.Mother Name
Admission Number.Father Cell
Admission Number.Mother Cell

Student Progress
Telugu
Hindi
English
Maths
Science
Total
Percentage
Result

Step 10: Creating Number Maintenance for Admin Number

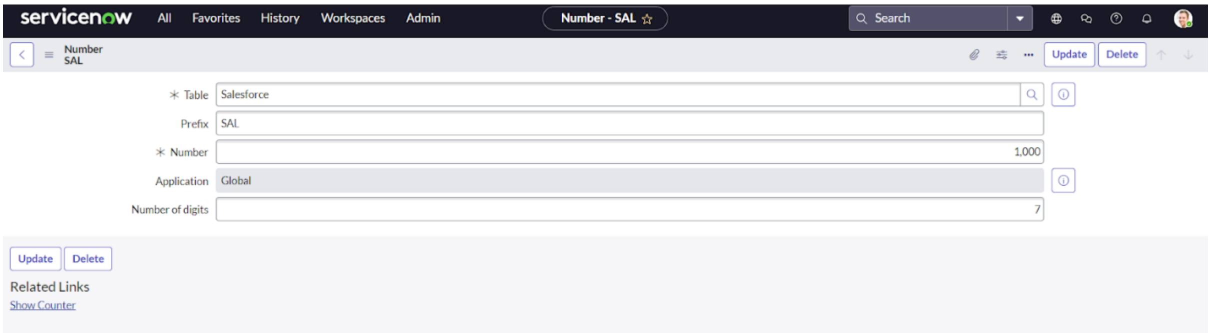
1. Navigate to **All → Number Maintenance → New**.



		Reference	Max length	Default value	Display
	Class Name	(empty)	80	javascript:current.getTableName();	false
Created by	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false

2. Fill in the required details for **Admin Number**.

3. Click **Submit** to save the record.

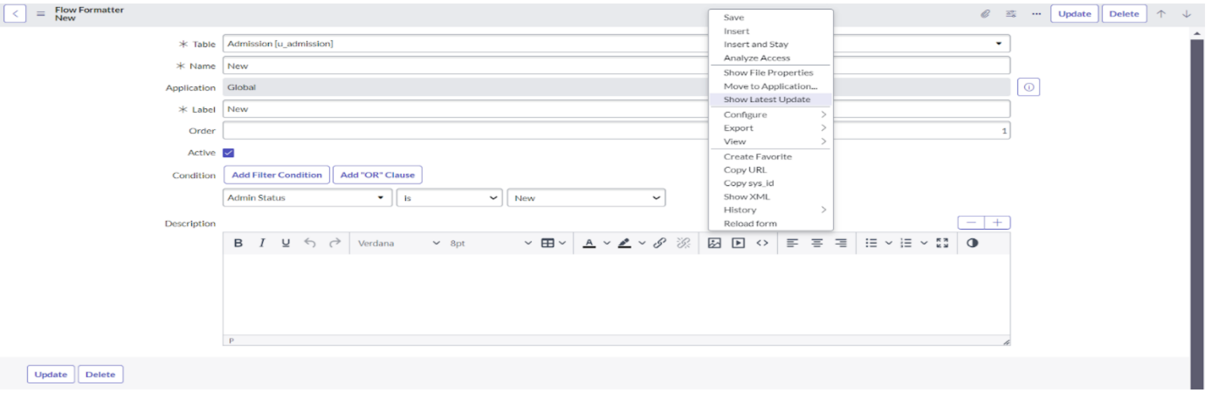


✱ Table	Salesforce
Prefix	SAL
✱ Number	1,000
Application	Global
Number of digits	7

Related Links
Show Counter

Step 11: Creating Process Flow for Admission Table

1. Navigate to **All → Process Flow → New**.

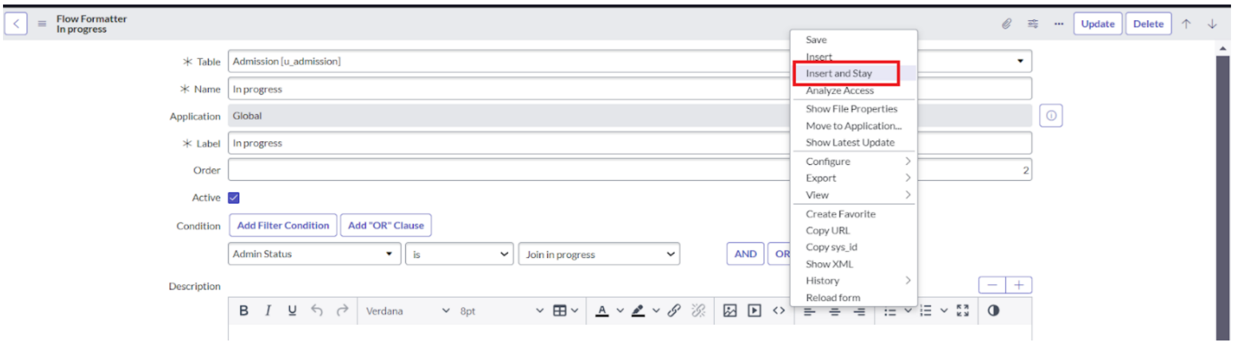


✱ Table	Admission [u_admission]
✱ Name	New
Application	Global
✱ Label	New
Order	1
Active	☑
Condition	Admin Status is New
Description	

2. Enter the required details for the **Admission Table** process.

3. Right-click on the header bar and select **Save**.

4. Replace the **Name** and **Label** fields as instructed, then click **Insert and Stay**.



Flow Formatter
In progress

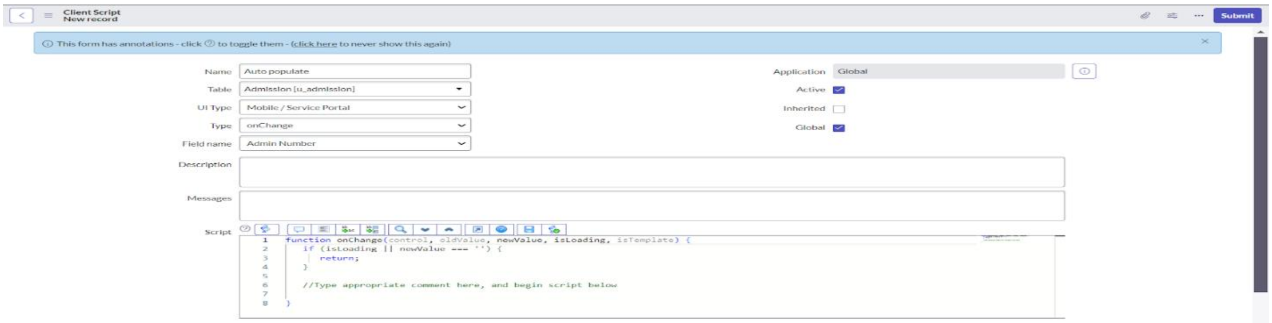
✱ Table	Admission [u_admission]
✱ Name	In progress
Application	Global
✱ Label	In progress
Order	2
Active	☑
Condition	Admin Status · is · Join in progress
Description	

5. Add and arrange the flow stages in the following order:
New → In Progress → Joined → Rejected → Rejoined → Closed → Cancelled.

Step 12: Creating "Auto Populate" Client Script for Admission Table

1. Navigate to **All → Client Scripts → New**.

2. Fill in the required details such as **Name, Table (Admission), and Type (onChange)**.



Client Script
New record

ⓘ This form has annotations - click ⓘ to toggle them - (click here to never show this again)

Name	Auto populate	Application	Global
Table	Admission [u_admission]	Active	☑
UI Type	Mobile / Service Portal	Inherited	□
Type	onChange	Global	☑
Field name	Admin Number		
Description			
Messages			

Script

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
   if (isLoading || newValue === '') {
      return;
   }

   //Type appropriate comment here, and begin script below

}
```

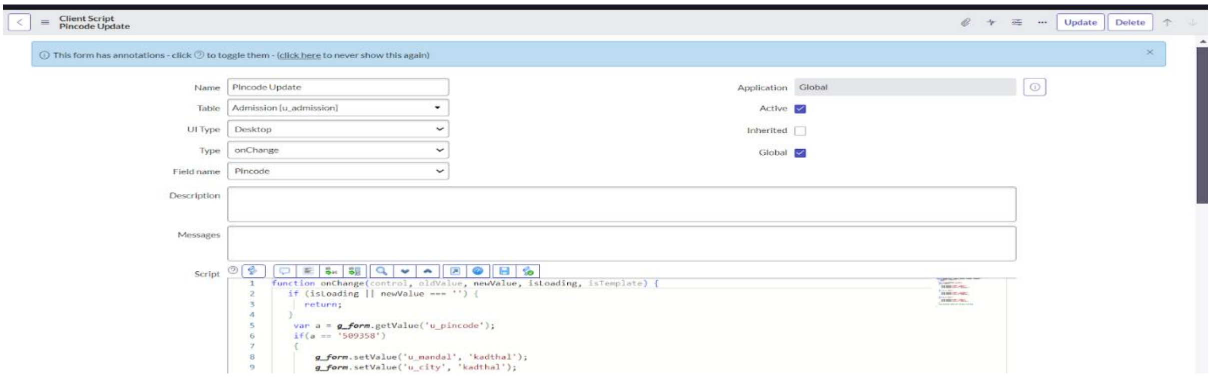
3. Enter the provided JavaScript code in the script editor.

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
  if (isLoading || newValue === '') {
    return;
  }

  //Type appropriate comment here, and begin script below
  var a = g_form.getReference('u_admission_number');
  g_form.setValue('u_admin_date',a.u_admin_date);
  g_form.setValue('u_grade',a.u_grade);
  g_form.setValue('u_student_name',a.u_student_name);
  g_form.setValue('u_father_name',a.u_father_name);
  g_form.setValue('u_mother_name',a.u_mother_name);
  g_form.setValue('u_father_cell',a.u_father_cell);
  g_form.setValue('u_mother_cell',a.u_mother_cell);

  g_form.setDisabled('u_admin_date',a.u_admin_date);
  g_form.setDisabled('u_grade',a.u_grade);
  g_form.setDisabled('u_student_name',a.u_student_name);
  g_form.setDisabled('u_father_name',a.u_father_name);
  g_form.setDisabled('u_mother_name',a.u_mother_name);
  g_form.setDisabled('u_father_cell',a.u_father_cell);
  g_form.setDisabled('u_mother_cell',a.u_mother_cell);
}
```

4. Enable **Isolate Script** to ensure secure script execution.
5. Click **Save** to apply the client script.
6. Ensure that the **field names** used in the script match exactly with the fields created in the Admission Table.

Step 13: Creating “Pincode Update” Client Script for Admission Table

1. Navigate to **All → Client Scripts → New**.
2. Fill in the required details such as **Name, Table (Admission), and Type (onChange)**.



Client Script
Pincode Update

ⓘ This form has annotations - click ⓘ to toggle them - (click here to never show this again)

Name	Pincode Update	Application	Global
Table	Admission [u_admission]	Active	☑
UI Type	Desktop	Inherited	□
Type	onChange	Global	☑
Field name	Pincode		
Description			
Messages			

Script

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
  if (isLoading || newValue === '') {
    return;
  }
   var a = g_form.getValue('u_pincode');
   if(a == '509358')
   {
       g_form.setValue('u_mandal', 'kadthal');
       g_form.setValue('u_city', 'kadthal');
```

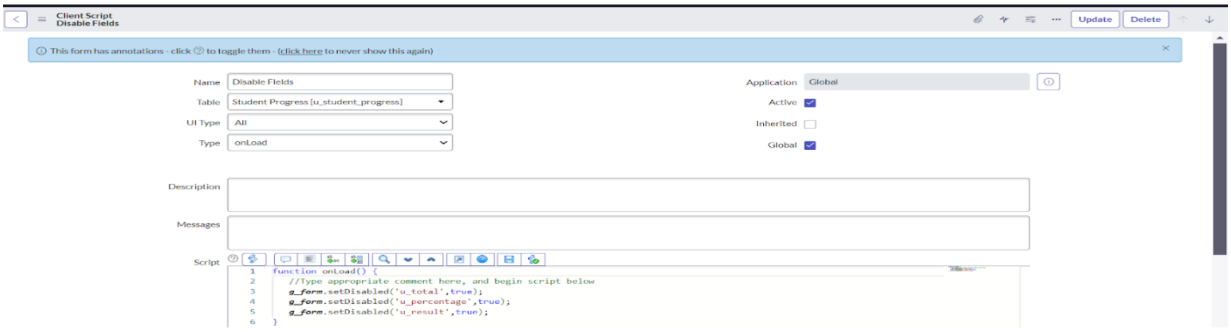
- Write the Code as below, Enable Isolate script and Save.

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
    if (isLoading || newValue === '') {
          return;
   }
  var a = g_form.getValue('u_pincode');
  if(a == '509358')
 {
     g_form.setValue('u_mandal', 'kadthal');
    g_form.setValue('u_city', 'kadthal');
   g_form.setValue('u_district', 'RangaReddy');



     }
  else if(a == '500081')
  {
  g_form.setValue('u_mandal', 'karmanghat');
  g_form.setValue('u_city', 'karmanghat');
   g_form.setValue('u_district', 'RangaReddy');
```

```
             }
            else if(a == '500079')
           {
            g_form.setValue('u_mandal', 'Abids');
           g_form.setValue('u_city', 'AsifNagar');
           g_form.setValue('u_district', 'Hyderabad');
          }


  //Type appropriate comment here, and begin script below


}
```

Step 14: Creating “Disable Fields” Client Script for Student Progress Table

1. Navigate to **All → Client Scripts → New**.



Client Script
Disable Fields

ⓘ This form has annotations - click ⓘ to toggle them - (click here to never show this again)

Name	Disable Fields	Application	Global
Table	Student Progress [u_student_progress]	Active	☑
UI Type	All	Inherited	□
Type	onLoad	Global	☑

Description

Messages

Script

```
function onLoad() {
    //Type appropriate comment here, and begin script below
    g_form.setDisabled('u_total',true);
    g_form.setDisabled('u_percentage',true);
    g_form.setDisabled('u_result',true);
}
```

2. Enter the required details such as **Name, Table (Student Progress), and Type (onLoad)**.

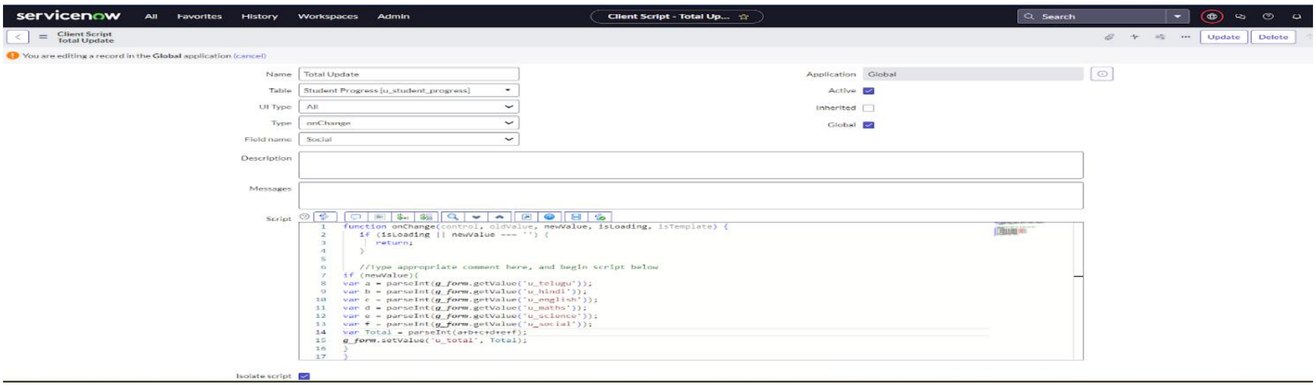
3. Copy and paste the given JavaScript code into the script editor.

4. Enable **Isolate Script** for secure execution.

5. Click **Save** to apply the client script.

Step 15: Creating “Total Update” Client Script for Student Progress Table

1. Navigate to **All → Client Scripts → New**.



Client Script
Total Update

You are editing a record in the Global application (cancel)

Name	Total Update	Application	Global
Table	Student Progress [u_student_progress]	Active	☑
UI Type	All	Inherited	□
Type	onChange	Global	☑
Field name	Social		
Description			
Messages			

Script

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
   if (isLoading || newValue === '') {
      return;
   }

   //Type appropriate comment here, and begin script below
if (newValue){
var a = parseInt(g_form.getValue('u_telugu'));
var b = parseInt(g_form.getValue('u_hindi'));
var c = parseInt(g_form.getValue('u_english'));
var d = parseInt(g_form.getValue('u_maths'));
var e = parseInt(g_form.getValue('u_science'));
var f = parseInt(g_form.getValue('u_social'));
var Total = parseInt(a+b+c+d+e+f);
g_form.setValue('u_total', Total);
}
}
```

Isolate script ☑

2. Enter the details such as **Name, Table (Student Progress), and Type (onChange)**.

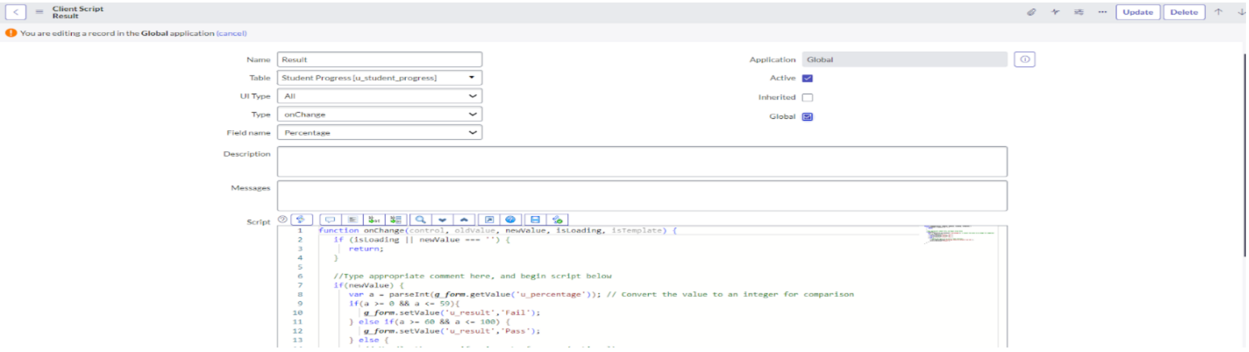
3. Paste the given JavaScript code into the script editor.

4. Enable **Isolate Script** for secure execution.

5. Click **Save** to apply the client script.

Step 16: Creating “Result” Client Script for Student Progress Table

1. Navigate to **All → Client Scripts → New**.



Client Script
Result

You are editing a record in the Global application (cancel)

Name	Result	Application	Global
Table	Student Progress [u_student_progress]	Active	☑
UI Type	All	Inherited	□
Type	onChange	Global	☑
Field name	Percentage		
Description			
Messages			

Script

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
   if (isLoading || newValue === '') {
      return;
   }

   //Type appropriate comment here, and begin script below
   if(newValue) {
      var a = parseInt(g_form.getValue('u_percentage')); // Convert the value to an integer for comparison
      if(a >= 0 && a <= 59){
         g_form.setValue('u_result','Fail');
      } else if(a >= 60 && a <= 100) {
         g_form.setValue('u_result','Pass');
      } else {
```

2. Enter the required details such as **Name, Table (Student Progress), and Type (onChange)**.

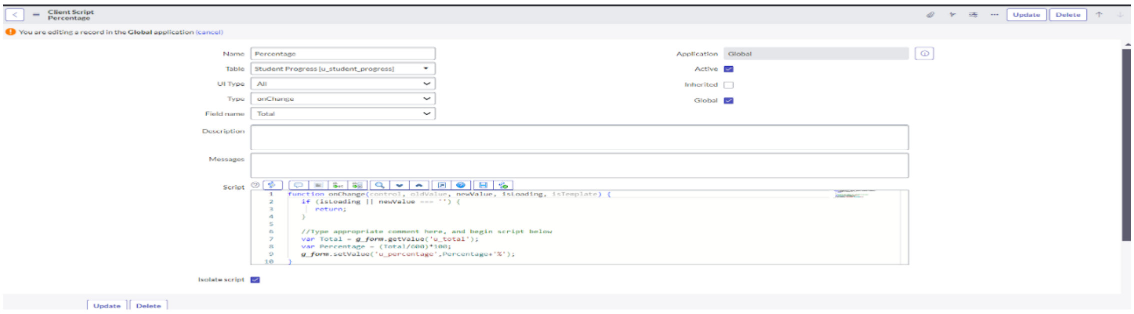
3. Copy and paste the provided JavaScript code into the script editor.

4. Enable **Isolate Script** to ensure safe execution.

5. Click **Save** to apply the client script.

Step 17: Creating “Percentage” Client Script for Student Progress Table

1. Navigate to **All → Client Scripts → New**.



Client Script
Percentage

You are editing a record in the Global application (cancel)

Name	Percentage	Application	Global
Table	Student Progress [u_student_progress]	Active	☑
UI Type	All	Inherited	□
Type	onChange	Global	☑
Field name	Total		
Description			
Messages			

Script

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
   if (isLoading || newValue === '') {
      return;
   }

   //Type appropriate comment here, and begin script below
   var Total = g_form.getValue('u_total');
   var Percentage = (Total/600)*100;
   g_form.setValue('u_percentage',Percentage+'%');
}
```

Isolate script ☑

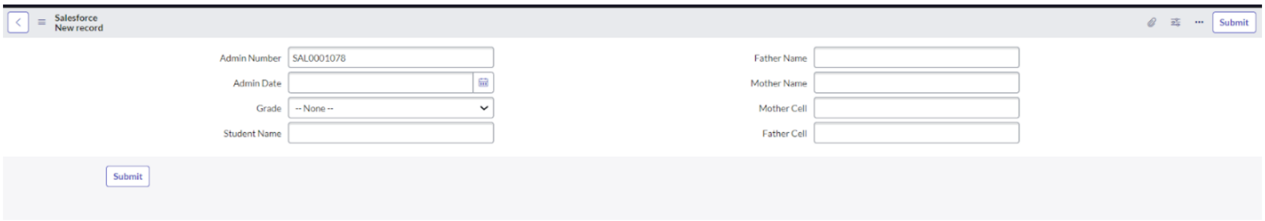
2. Enter the required details such as **Name, Table (Student Progress), and Type (onChange)**.

3. Paste the given JavaScript code into the script editor.

4. Enable **Isolate Script** for secure execution.

5. Click **Save** to apply the client script.

Result:

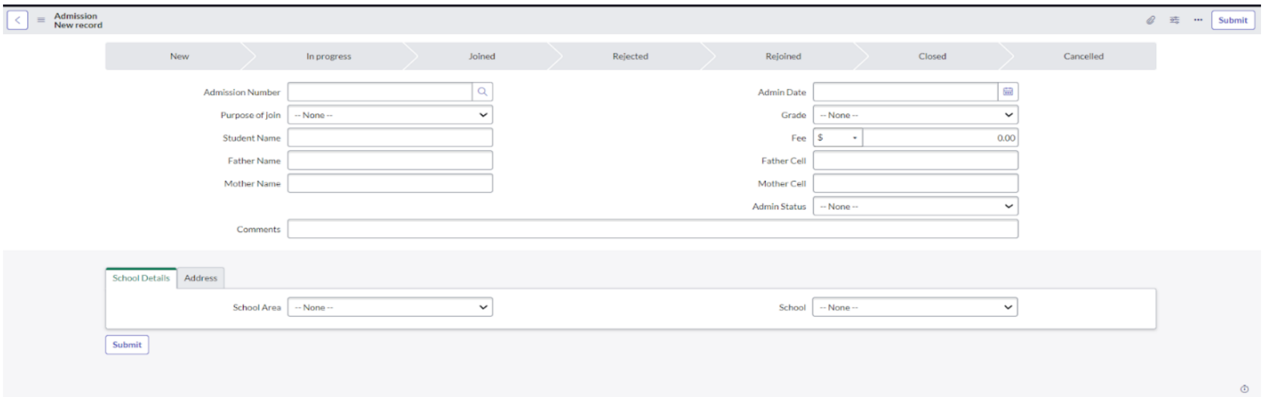


Salesforce
New record

Submit

Admin Number	SAL0001078	Father Name	
Admin Date		Mother Name	
Grade	-- None --	Mother Cell	
Student Name		Father Cell	

Submit



Admission
New record

Submit

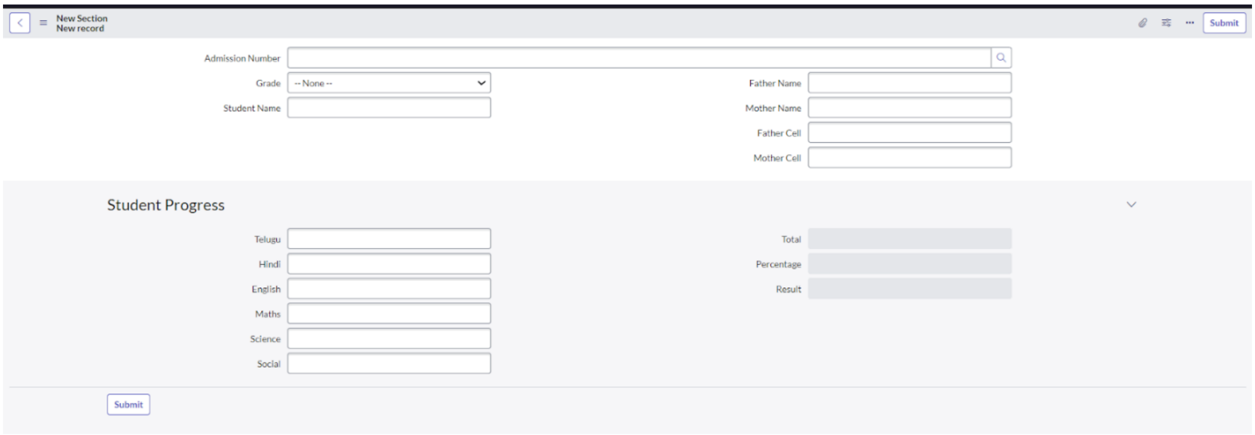
New | In progress | Joined | Rejected | Rejoined | Closed | Cancelled

Admission Number		Admin Date	
Purpose of join	-- None --	Grade	-- None --
Student Name		Fee	$ 0.00
Father Name		Father Cell	
Mother Name		Mother Cell	
		Admin Status	-- None --
Comments			

School Details | Address

School Area	-- None --	School	-- None --

Submit



New Section
New record

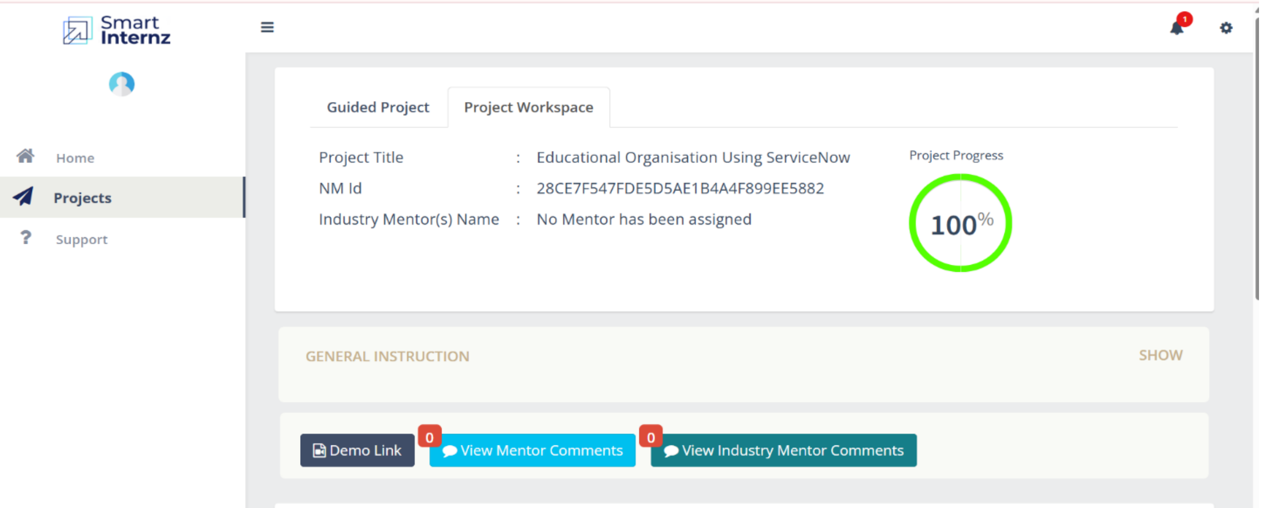
Submit

Admission Number			
Grade	-- None --	Father Name	
Student Name		Mother Name	
		Father Cell	
		Mother Cell	

Student Progress

Telugu		Total	
Hindi		Percentage	
English		Result	
Maths			
Science			
Social			

Submit



Guided Project | Project Workspace

Project Title : Educational Organisation Using ServiceNow

NM Id : 28CE7F547FDE5D5AE1B4A4F899EE5882

Industry Mentor(s) Name : No Mentor has been assigned

Project Progress 100%

GENERAL INSTRUCTION SHOW

Demo Link | 0 View Mentor Comments | 0 View Industry Mentor Comments

Conclusion

The *Educational Organisation* project in **ServiceNow** effectively automates school management processes such as admissions and student progress tracking. Using tables, client scripts, and process flows, the system improves data accuracy and reduces manual work. Overall, it demonstrates how ServiceNow can be used to build efficient and user-friendly educational management solutions.