

Educational Organisation Using ServiceNow

Objective / Abstract:

The Educational Organisation Using ServiceNow project focuses on automating and simplifying the administrative and academic management processes within educational institutions. This system leverages the **ServiceNow low-code development platform** to manage student admissions, maintain teacher and student records, and track academic progress efficiently. It aims to minimize manual effort and errors by providing dynamic forms, process automation, and client scripts that streamline operations. The project ensures data consistency, real-time updates, and structured record handling, thereby improving transparency and productivity across the educational environment.

Technologies Used:

- ServiceNow Platform (Low-Code Development Environment)
- JavaScript (for Client Scripts)
- ServiceNow Tables, Forms, and Modules
- Process Flow Designer
- Update Sets and Form Layout Configuration

Modules or Features:

- **Salesforce Table**
 - Core table designed to store student and admission data.
 - Includes key columns such as Admin Number, Grade, and Student Information.
 - Dynamic default values and choice fields for improved usability.
- **Admission Table**

- Extends from the Salesforce table to handle admission processes.
- Includes fields like Admission Number, Admin Date, Grade, Student Name, Parent Details, and Admission Status.
- Choice fields defined for Pincode, Purpose of Join, School, and Area.
- **Student Progress Table**
 - Manages academic progress and subject scores.
 - Automatically calculates total marks, percentage, and result status (Pass/Fail).
 - Integrated with client scripts for automation and data validation.
- **Process Flow for Admission**
 - Defines a complete workflow from New → In Progress → Joined → Rejected → Rejoined → Closed → Cancelled.
 - Automates stage transitions for better tracking.
- **Client Scripts for Automation**
 - **Auto Populate Script:** Automatically fills in student details in the Admission Table based on the Admission Number.
 - **Pincode Update Script:** Updates Mandal, City, and District fields based on entered Pincode.
 - **Disable Fields Script:** Restricts editing for calculated fields (Total, Percentage, Result) in Student Progress Table.
 - **Total Update Script:** Calculates the total marks dynamically as subjects are filled.
 - **Percentage Script:** Computes percentage based on total marks.
 - **Result Script:** Displays Pass/Fail result depending on the calculated percentage.

System Architecture / Workflow:

- **Setup Phase**
 - Request a personal developer instance from developer.servicenow.com.
 - Configure and log in to the ServiceNow instance.
 - Create an Update Set and make it current for tracking all customizations.

- **Database Configuration**

- Create the Salesforce table and extend it for Admissions and Student Progress.
- Define fields, data types, and enable extensibility.
- Configure choice fields for flexibility in dropdown data selection.

- **Form and Layout Design**

- Use Form Design and Layout configuration to structure the form views.
- Set dynamic defaults using "Get Next Padded Number" for Admin Numbers.
- Maintain clear data grouping for readability.

- **Workflow Management**

- Create Process Flow with distinct states for Admission tracking.
- Assign order and transitions to ensure proper record movement.

- **Automation through Client Scripts**

- Develop JavaScript-based scripts for automatic field updates, validations, and calculations.
- Enable Isolate Script to ensure script security.

- **Testing and Validation**

- Test all workflows, scripts, and field behaviors.
- Ensure data consistency and correctness of automated updates.

Results / Screenshots:

The final system successfully automates the core administrative operations of educational management within ServiceNow.

It ensures that student admission, data entry, and academic progress are handled efficiently and with minimal

ServiceNow Developers

Salesforce | Table | ServiceNow

dev267897.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Ddb4ca195e53303210f76278e0a0490eca%26sysparm_record_target%3Dsys_db_object%26sysparm_...

ServiceNow

All Favorites History Workspaces Admin

Table - Salesforce

Search

Delete Update Delete All Records

Table Salesforce

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label Salesforce

* Name u_salesforce

Application Global

Remote Table

Columns Controls Application Access

Table Columns Column label Search

1 to 9 of 9 New

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Admin Number	True/False	(empty)	40		false
Class	System Class Name	(empty)	80	javascript:current.getTableName();	false
Created	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
Grade*	True/False	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updated	Date/Time	(empty)	40		false

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ServiceNow Developers

Salesforce | Table | ServiceNow

dev267897.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Ddb4ca195e53303210f76278e0a0490eca%26sysparm_record_target%3Dsys_db_object%26sysparm_...

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Grade*	True/False	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updated	Date/Time	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false

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A dictionary entry manages how ServiceNow stores data in tables and fields (columns). For new dictionary entries, select a **Table** and the field **Type** of the new column. Also enter a column label, which becomes the field label, and the column name. If necessary, set a **Max length** for text String type fields, make the field **Mandatory** to save a record, and make the field a **Display Value** for reference fields so it appears on records that reference this table. [More Info](#)

* Table: Salesforce [u_salesforce] Application: Global

* Type: True/False Active: ☒

* Column label: Admin Number Function field: ☐

* Column name: u_admin_number Read only: ☐

Display: ☐

Choice List Specification Default Value

The **Default value** specifies what value the field has when first displayed.

Default value

Delete Column Update

Related Links

Show Table

Access Controls Choices (13) Attributes Labels (1) Dictionary Overrides

Label	Value	Language	Sequence	Inactive	Updated
VII	7th	en	10	false	2025-10-26 23:38:08
III	3rd	en	6	false	2025-10-26 23:34:55
Nursery	Nursery	en	2	false	2025-10-26 23:32:52
Prept	Prept	en	1	false	2025-10-26 23:32:47
X	10th	en	13	false	2025-10-26 23:39:39
V	5th	en	8	false	2025-10-26 23:37:05
I	1st	en	4	false	2025-10-26 23:34:02
II	2nd	en	5	false	2025-10-26 23:34:28
UKG	UKG	en	3	false	2025-10-26 23:33:09
IX	9th	en	12	false	2025-10-26 23:39:17
IV	4th	en	7	false	2025-10-26 23:36:43
VIII	8th	en	11	false	2025-10-26 23:38:50
VI	6th	en	9	false	2025-10-26 23:37:33

ServiceNow Developers x ServiceNow x +

dev267897.service-now.com/now/nav/ui/classic/params/target/slushbucket.do%3Fsysparm_referring_url%3Dsys_db_object.do%253Fsys_id%253Db5f30ade53743210f76278e0a0490eae%25409... School

serviceNow All Favorites History Workspaces Admin Search

Configuring Table form Cancel Save

Available

Admin Number
Admission Number [+]
Class
Created
Created by
Grade*
Updated
Updated by
Updates
|- begin_split -|
|- split -|
|- end_split -|
* Annotation
* Chart
Activities (filtered)

>
<

Selected

|- begin_split -|
Maths
Result
Percentage
English
Admission Number
|- split -|
Hindi
Social
Science
Telugu
Total
|- end_split -|

^
v

Cancel Save

Form view and section

View name Default view
Section Student Progress Table
New...

Create new field

Name
Type String
Field length Small (40)

Add

Related Links

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

dev267897.service-now.com/\$ng_id.do?sysparm_attributes=startTable:"sys_db_object"%2CstartView:"Default"%2Dview" School

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 Column

Admin Number Grade*

1 Column

Admin date
Student name
Father name
Mother name
Father cell
Mother cell

ServiceNow Developers | Salesforce | Table | ServiceNow | Form Design

dev267897.service-now.com/\$ng_fd.do?sysparm_attributes=startTable:"sys_db_object"%2CstartView:"Default"%2Dview

Admission [u_admission] | Default view | Form Design | Undo | Save

Fields | Field Types

Filter

Fields

- Admission Number
- Class
- Class
- Created
- Created by
- Sys ID
- Updated
- Updated by
- Updates

Formatters

- Activities (filtered)
- Contextual Search Results
- Ratings

Drag content, drop it here

Grade*

2 Column

Admission Number	Admin date
Purpose of join	Fee
Student name	Father cell
Father name	Mother cell
Mother name	Admin Status

New Section

2 Column

School Area	School
-------------	--------

New Section

2 Column

Pincode	Area
Mandal	City
House No	District

ServiceNow Developers | Result | Client Script | ServiceNow | Form Design

dev267897.service-now.com/now/nav/ui/classic/params/target/sys_script_client.do%3Fsys_id%3D3D2b6653ea537cb210f76278e0a0490ed6%26sysparm_view%3D%26sysparm_domain%3Dnull%26...

Client Script - Result

Description

Messages

Script

```
1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3   if (isLoading || newValue === '') {
4     return;
5   }
6
7   //Type appropriate comment here, and begin script below
8
9   if(newValue) {
10
11     var a = parseInt(g_form.getValue('u_percentage')); // Convert the value to an integer for comparison
12
13     if(a >= 0 && a <= 59){
14
15       g_form.setValue('u_result', 'Fail');
16
17     } else if(a >= 60 && a <= 100) {
18
19       g_form.setValue('u_result', 'Pass');
20
21     } else {
22
23     }
```

<

Admission

New record

Submit

Name	In progress	Joined	Rejected	Rejoined	Closed	Cancelled
Admission Number <input type="text"/> <input type="button" value="CL"/> Purpose of Join <input type="text" value="-- Name --"/> Student Name <input type="text"/> Father Name <input type="text"/> Mother Name <input type="text"/> Comments <input type="text"/>	Admin Date <input type="text"/> <input type="button" value="ID"/> Grade <input type="text" value="-- None --"/> Fee \$ <input type="text" value="+"/> <input type="text" value="000"/> Father Cell <input type="text"/> Mother Cell <input type="text"/> Admin Status <input type="text" value="-- None --"/>					

School Details

Addres

School Area

School

Submit

<

Admission

New record

Submit

Name	In progress	Joined	Rejected	Rejoined	Closed	Cancelled
Admission Number <input type="text"/> <input type="button" value="CL"/> Purpose of Join <input type="text" value="-- Name --"/> Student Name <input type="text"/> Father Name <input type="text"/> Mother Name <input type="text"/> Comments <input type="text"/>	Admin Date <input type="text"/> <input type="button" value="ID"/> Grade <input type="text" value="-- None --"/> Fee \$ <input type="text" value="+"/> <input type="text" value="000"/> Father Cell <input type="text"/> Mother Cell <input type="text"/> Admin Status <input type="text" value="-- None --"/>					

School Details

Addres

School Area

School

Submit