

# Educational Organisation Using ServiceNow

**Team ID :** NM2025TMID16447

**Team Size :** 5

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## **Problem Statement:**

Educational institutions often face challenges in managing vast amounts of data related to students, teachers, and administrative workflows. Manual processes lead to data silos, errors, and inefficiencies that can affect the quality of education and administration.

There is a need for a centralized, intelligent platform that can automate these processes, provide real-time insights, and scale with institutional needs. The lack of such a system leads to delays in decision-making, poor data visibility, and difficulty in monitoring student performance.

## Objective:

- To develop and deploy a centralized Educational Management System using ServiceNow.
- To automate key administrative workflows including admissions, attendance, grading, and reporting.
- To enable real-time tracking of student progress and institutional performance.
- To integrate machine learning models (via TensorFlow) for predictive analytics, such as academic risk identification and performance trends.
- To improve collaboration between students, teachers, and administrative staff through unified dashboards and communication tools.

## Skills:

- ServiceNow Administration
- ITSM / ITOM Modules (preferred)
- Workflow and Form Design
- Role and Access Control Management
- Scripting (JavaScript, Glide)
- Integration with external systems (REST/SOAP APIs)
- (Optional/Questionable) TensorFlow – Needs clarification

## TASK INITIATION

## Milestone 1: Setting up ServiceNow Instance

## Activity 1: Setting up ServiceNow Instance

1. Sign up for a developer account on the ServiceNow Developer site "<https://developer.servicenow.com>".
  2. Once logged in, navigate to the "Personal Developer Instance" section.
  3. Click on "Request Instance" to create a new ServiceNow instance.
  4. Fill out the required information and submit the request.
  5. You'll receive an email with the instance details once it's ready.
  6. Log in to your ServiceNow instance using the provided credentials.
  7. Now you will navigate to the ServiceNow.

The screenshot shows the ServiceNow developer instance management interface. At the top, there's a navigation bar with links for MyNow, Products, Industries, Learning, Support, Partners, and Company. Below that is a sub-navigation bar for the 'Developer' role, with links for Home, Learn, Reference, Guides, and Connect. A search bar and a 'Start building' button are also present.

The main content area is titled 'Manage my instance (dev268061)'. It displays the following information:

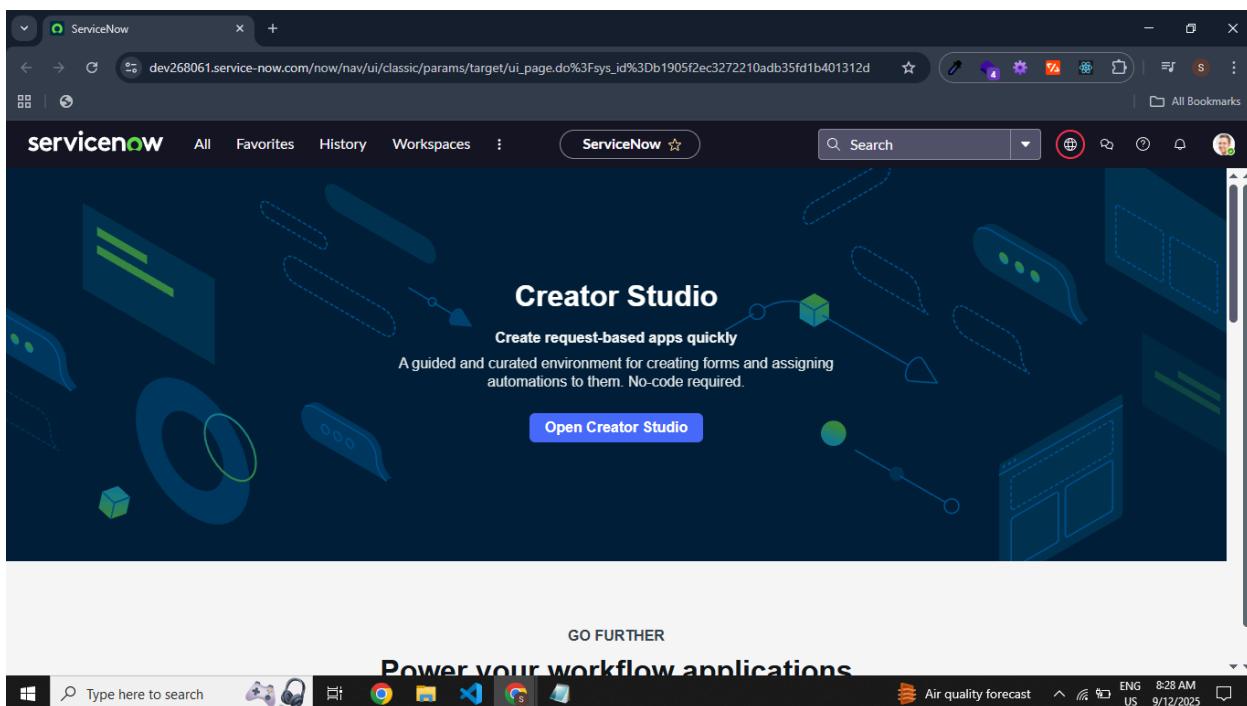
- Status:** Online
- App engine studio:** ✓ Installed
- Creator studio:** ✓ Installed
- Your Current Version:** Washingtondc
- Upgrade release:** (button)

A red box highlights the instance URL and user details:

- Instance URL:** <https://dev268061.service-now.com/>
- User name:** admin
- Current password:** (redacted)
- User role:** Admin

To the right, there's a sidebar titled 'Actions' with a dropdown menu. Another sidebar titled 'Useful links' contains links to the Personal Developer Instance (PDI) Guide, PDI FAQs, Managing your PDI, and the Developer advocate blog.

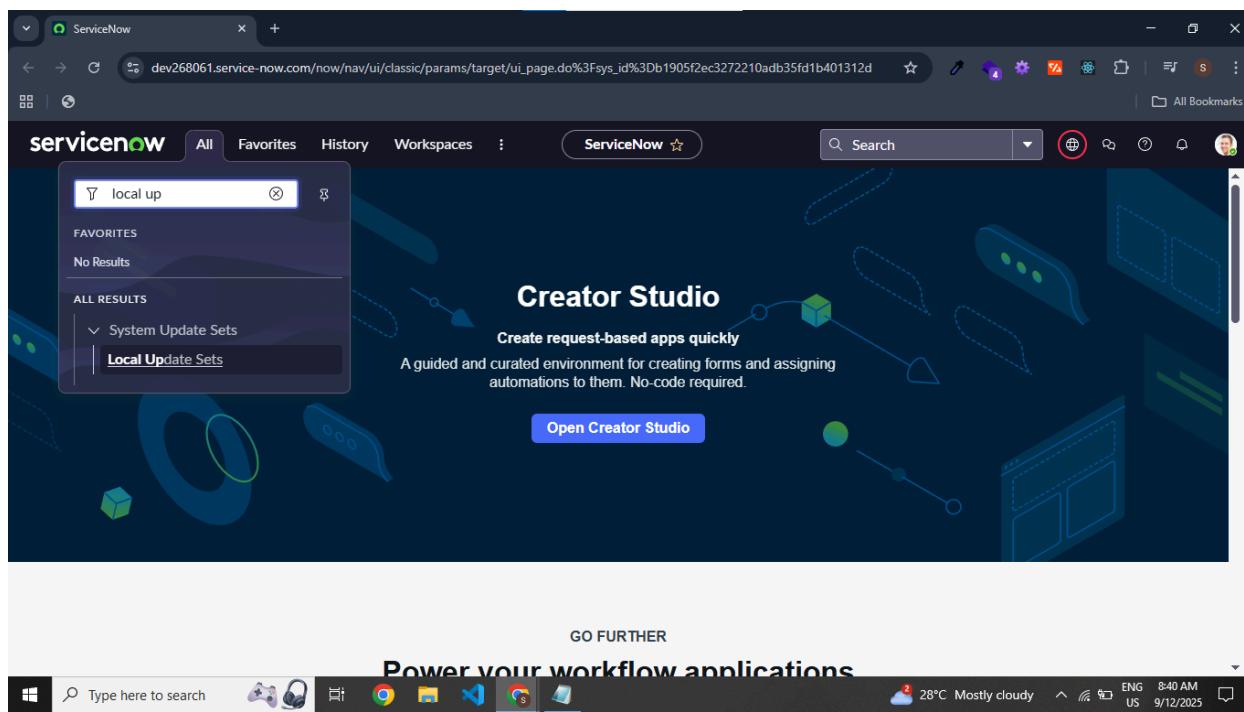
At the bottom, there's a section for 'Plugins for your instance (53)' with a 'Sort: A-Z' dropdown and a 'Search' input field. The taskbar at the bottom includes icons for activation statuses, demo data statuses, and a search bar.



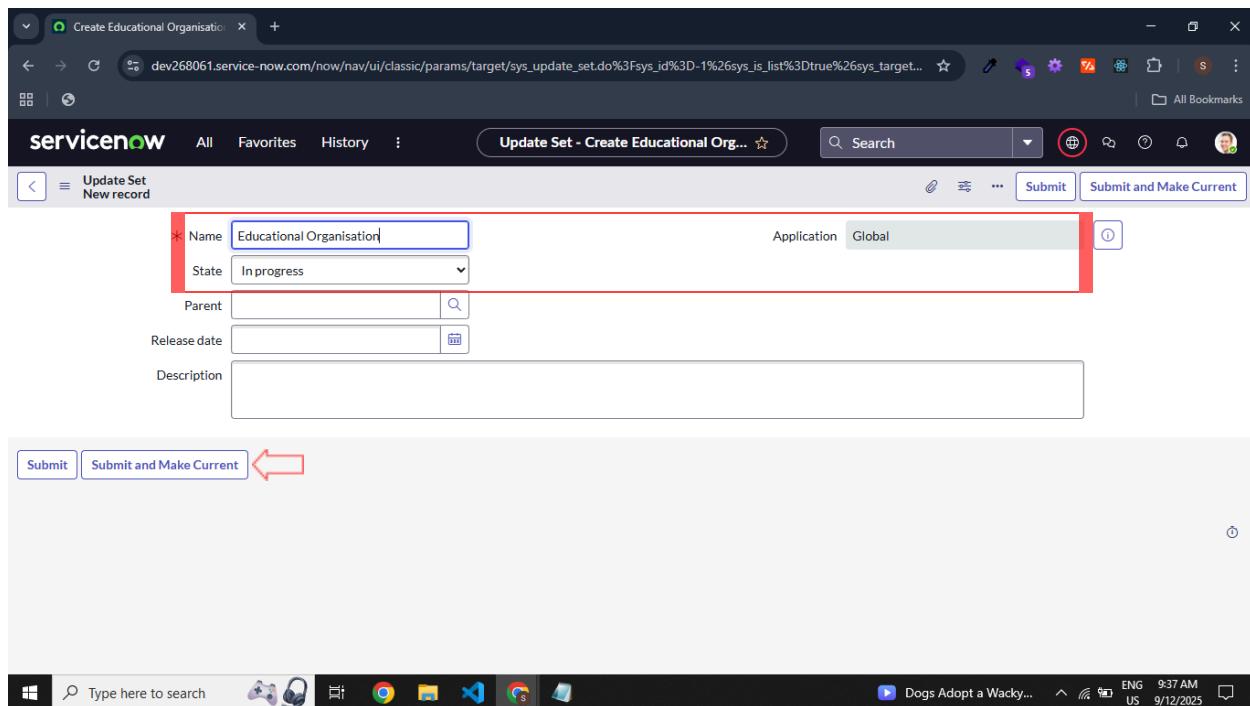
## Milestone 2: Creating an Update Set

### Activity 1: Creating an Update Set

1. Click on All >> Local update sets .



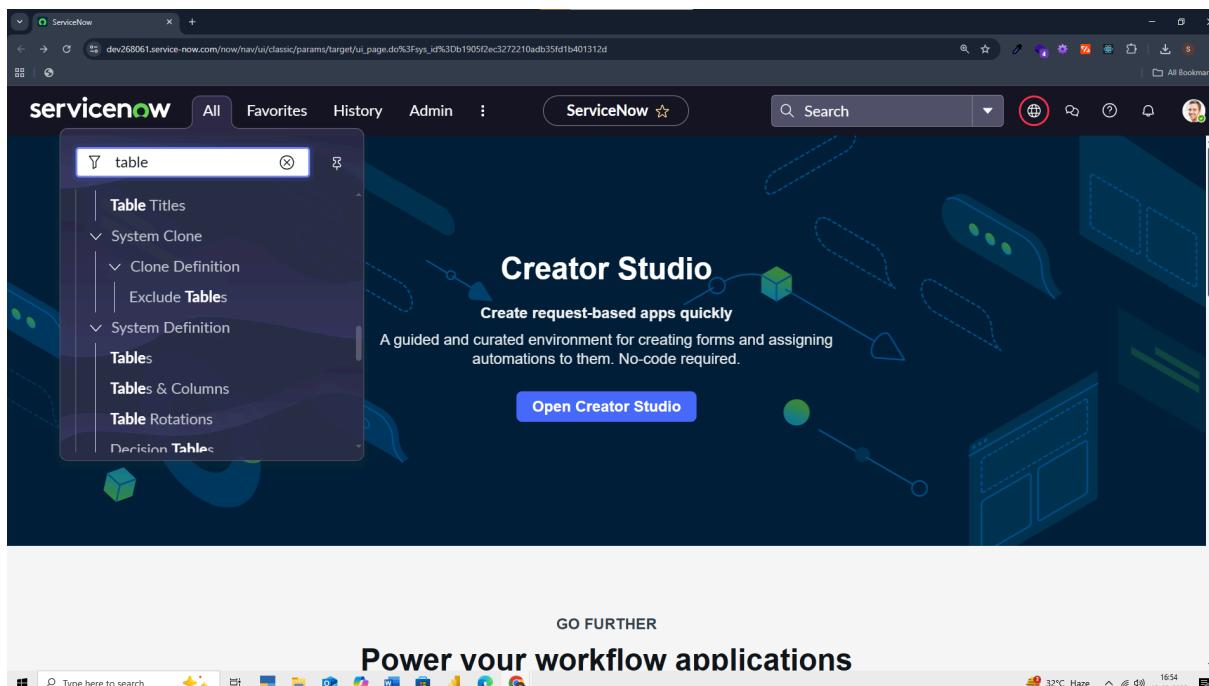
2. Click on new
3. Enter the Details Name: Educational Organisation >> Click on Submit and make Current.



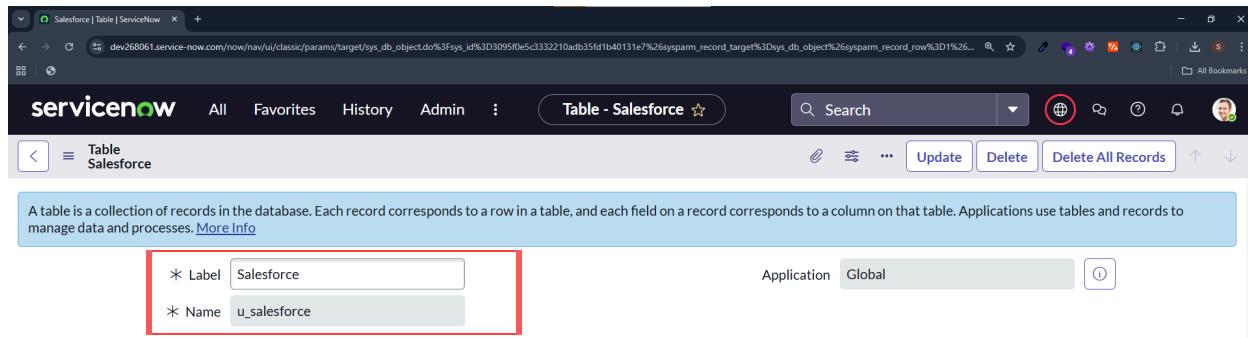
## Milestone 3: Creating a Table

### Activity 1: Creating Salesforce Table

1. All >> System Definition >> Tables.



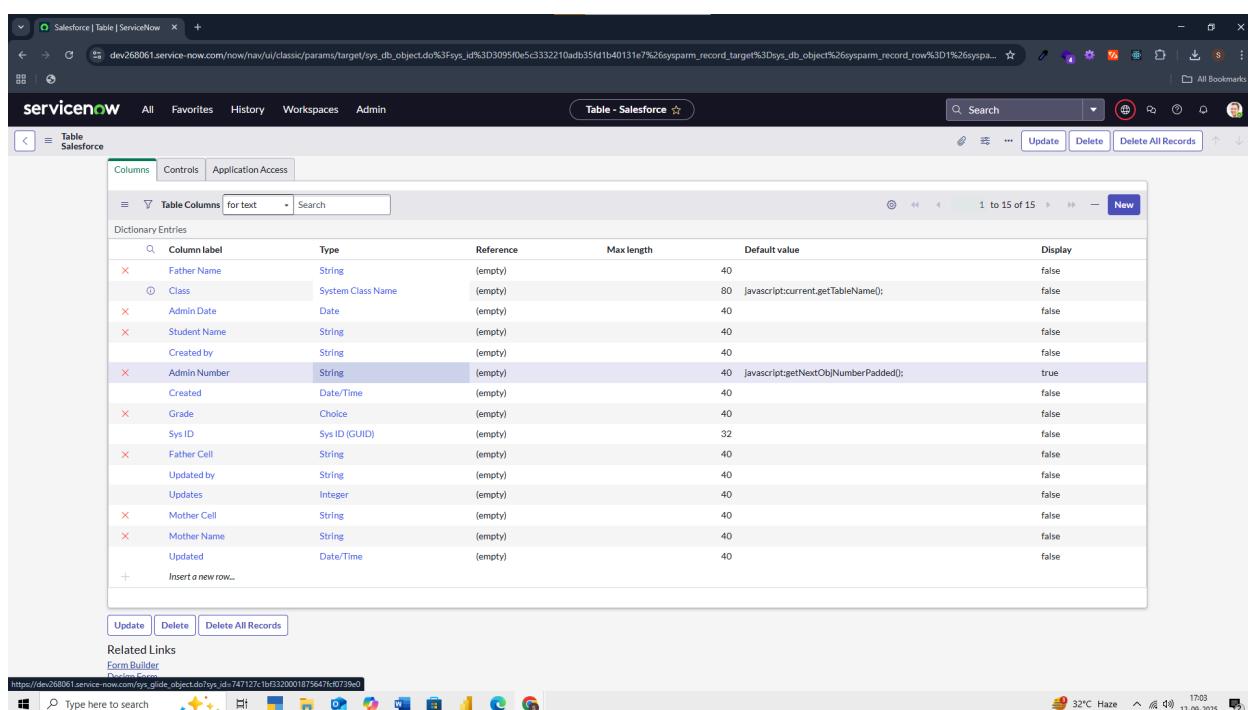
2. Click on new
3. Enter the Label(Anything you want): Salesforce >> Click on Name it will Automatically generate Api name.



A screenshot of the ServiceNow Table - Salesforce page. The 'Label' field contains 'Salesforce' and the 'Name' field contains 'u\_salesforce'. Both fields are highlighted with a red box.

Column label	Type	Reference	Max length	Default value	Display
Father Name	String	(empty)	40		false
Class	System Class Name	(empty)	80	javascript:current.getTableName();	false
Admin Date	Date	(empty)	40		false
Student Name	String	(empty)	40		false

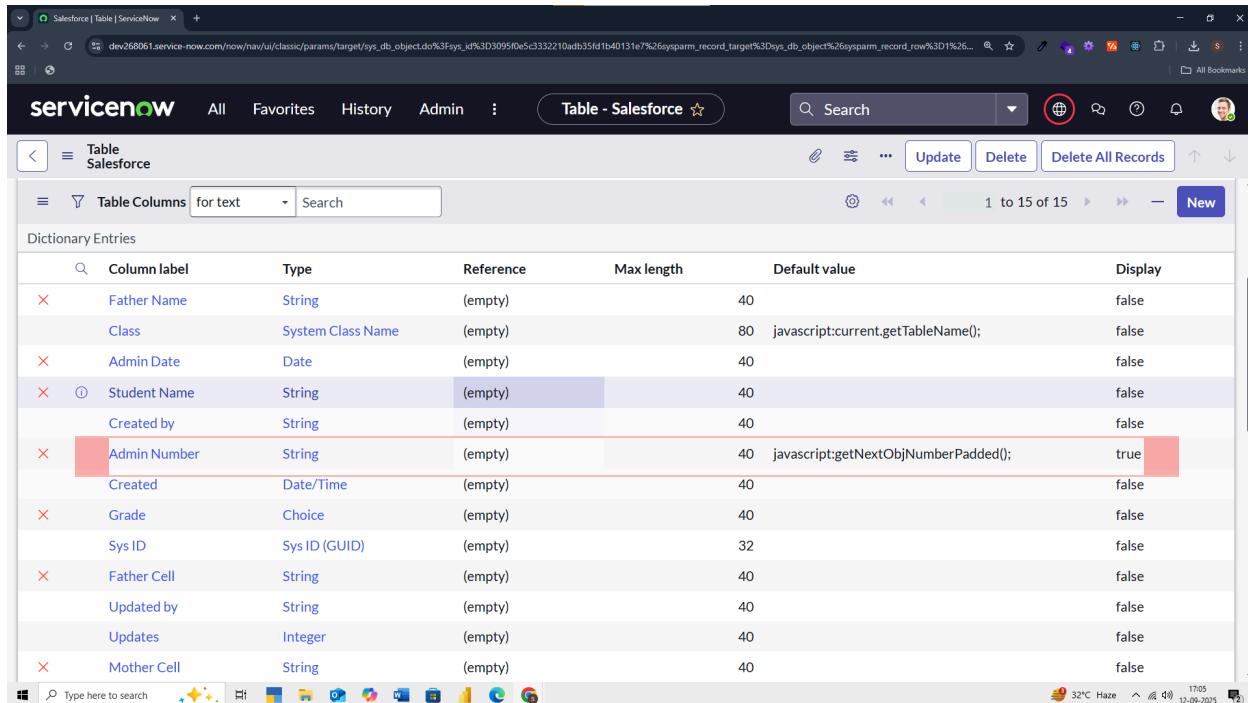
4. Create columns as given below, Double Click on Column label and Enter the Column labels and click on the tick mark >> Give Type as given .



A screenshot of the ServiceNow Table - Salesforce page showing the 'Table Columns' list. The 'Class' column is selected and its type is set to 'System Class Name'. Other columns listed include Father Name, Admin Date, Student Name, Created by, Admin Number, Created, Grade, Sys ID, Father Cell, Updated by, Updates, Mother Cell, Mother Name, and Updated.

Column label	Type	Reference	Max length	Default value	Display
Father Name	String	(empty)	40		false
Class	System Class Name	(empty)	80	javascript:current.getTableName();	false
Admin Date	Date	(empty)	40		false
Student Name	String	(empty)	40		false
Created by	String	(empty)	40		false
Admin Number	String	(empty)	40	javascript:getNextObjNumberPadded();	true
Created	Date/Time	(empty)	40		false
Grade	Choice	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Father Cell	String	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Mother Cell	String	(empty)	40		false
Mother Name	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false

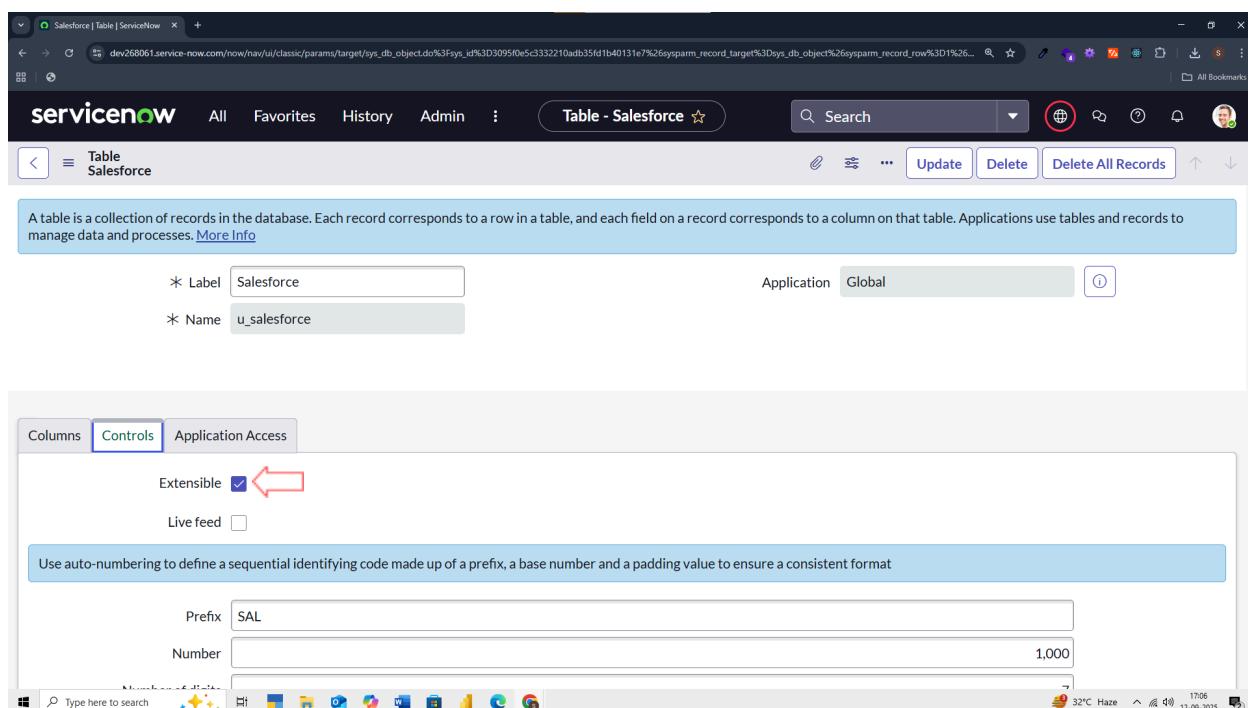
5. For “Admin Number” Give Display as True and right click on the toggle bar on top  
 >> save.



The screenshot shows the ServiceNow Table - Salesforce interface. A table of columns is displayed with the following data:

	Column label	Type	Reference	Max length	Default value	Display
X	Father Name	String	(empty)	40	false	
	Class	System Class Name	(empty)	80	javascript:current.getTableName();	false
X	Admin Date	Date	(empty)	40		false
X	① Student Name	String	(empty)	40		false
	Created by	String	(empty)	40		false
X	Admin Number	String	(empty)	40	javascript:getNextObjNumberPadded();	true
	Created	Date/Time	(empty)	40		false
X	Grade	Choice	(empty)	40		false
	Sys ID	Sys ID (GUID)	(empty)	32		false
X	Father Cell	String	(empty)	40		false
	Updated by	String	(empty)	40		false
	Updates	Integer	(empty)	40		false
X	Mother Cell	String	(empty)	40		false

6. Click on controls >> Enable Extensible.



The screenshot shows the ServiceNow Table - Salesforce interface with the Controls tab selected. The Extensible checkbox is checked. Below it, there is a note about auto-numbering and fields for Prefix and Number.

Controls Tab Configuration:

- Extensible:
- Live feed:

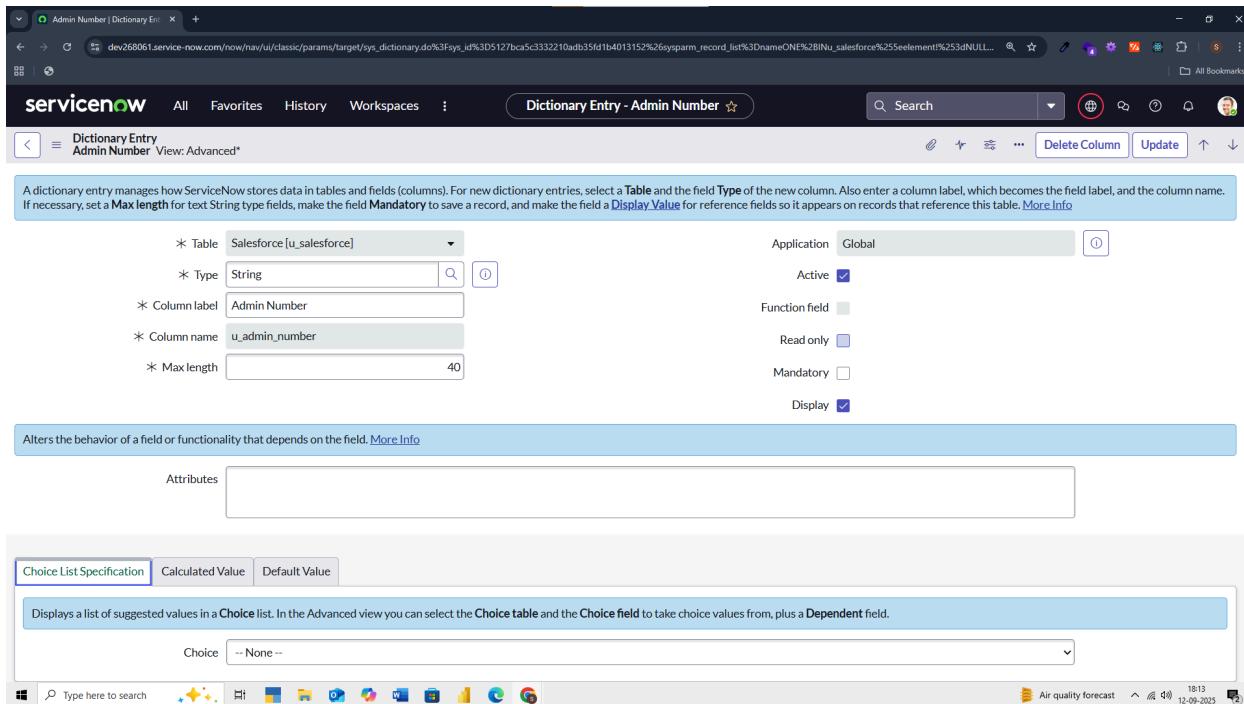
Auto-numbering Note:

Use auto-numbering to define a sequential identifying code made up of a prefix, a base number and a padding value to ensure a consistent format

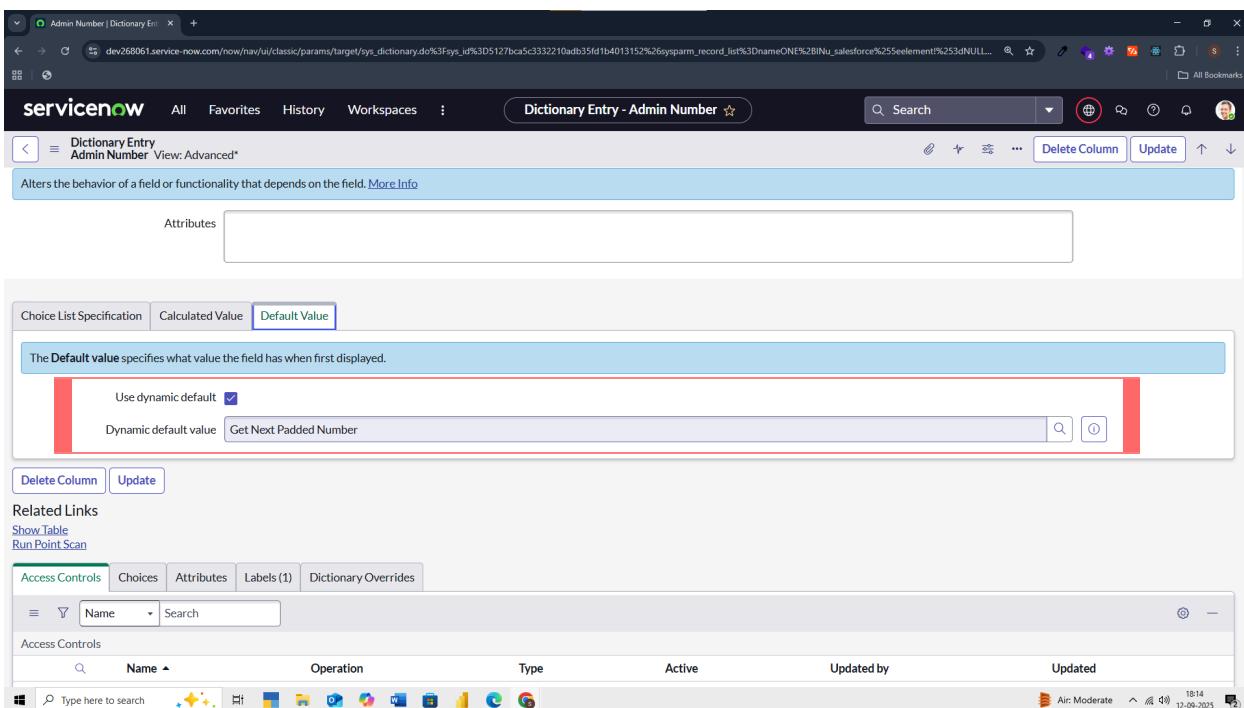
Auto-numbering Fields:

- Prefix: SAL
- Number: 1,000

7. Click on “Admin Number” column, In Related Links Click on Advanced View >> Default View (Enable Use dynamic default) >> select Get Next Padded Number in Dynamic default value >> Update .

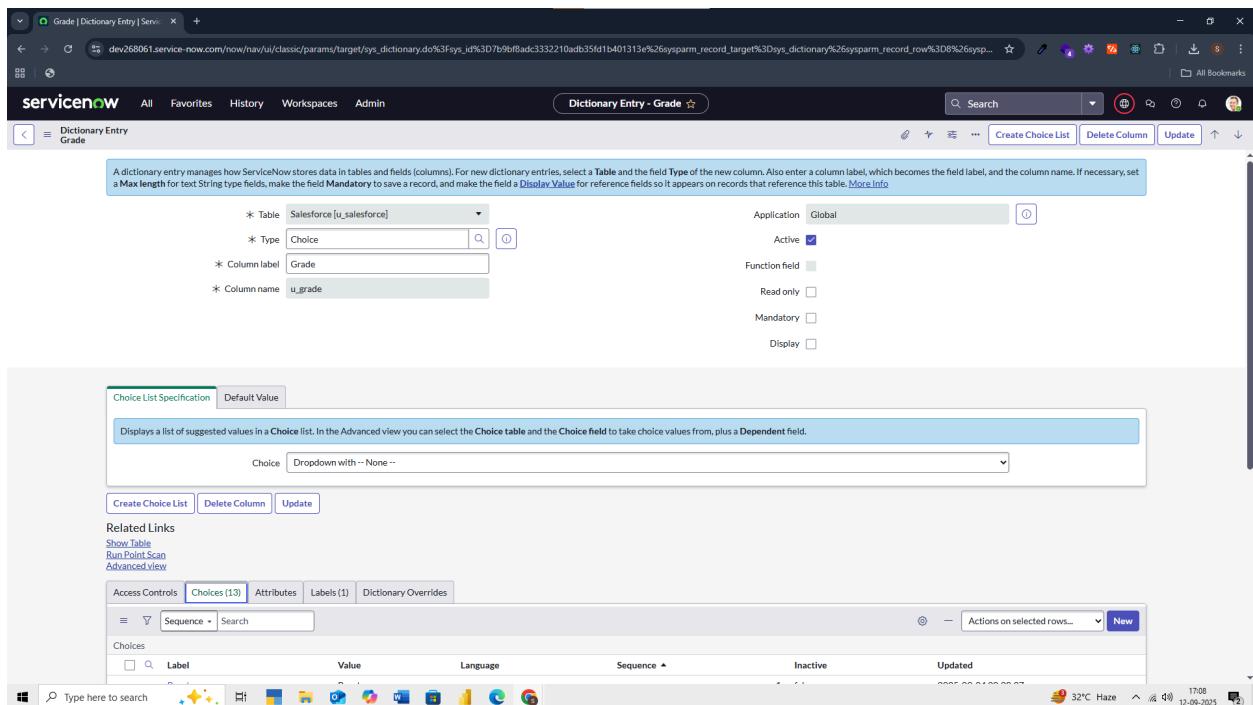


This screenshot shows the ServiceNow Dictionary Entry interface for the 'Admin Number' field. The 'Default Value' tab is active. A callout box highlights the 'Dynamic default value' dropdown, which is set to 'Get Next Padded Number'. Other tabs visible include 'Choice List Specification' and 'Calculated Value'.

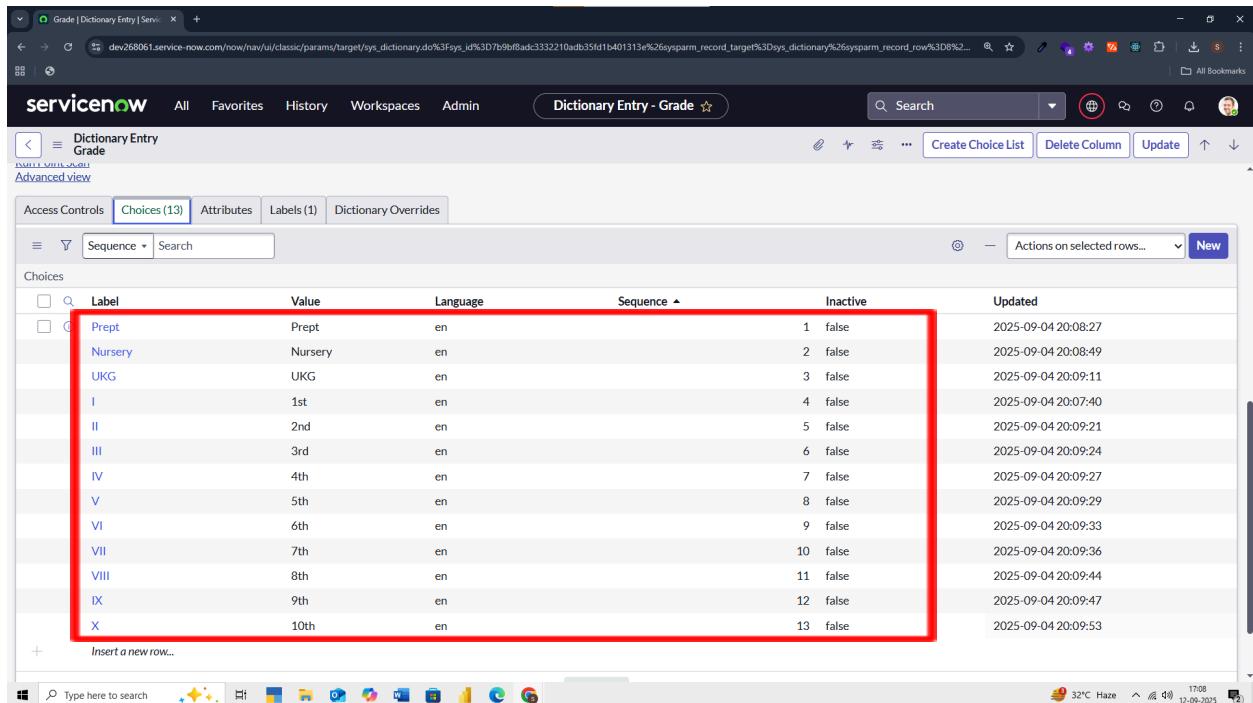


This screenshot shows the same ServiceNow Dictionary Entry interface, but with a red box highlighting the 'Dynamic default value' dropdown in the 'Default Value' tab. The dropdown is set to 'Get Next Padded Number'. The 'Use dynamic default' checkbox is checked. Other tabs and fields are visible but not highlighted.

8. Click on “Grade” Column >> Click on Choices and give Label,Value and Sequence as given below.



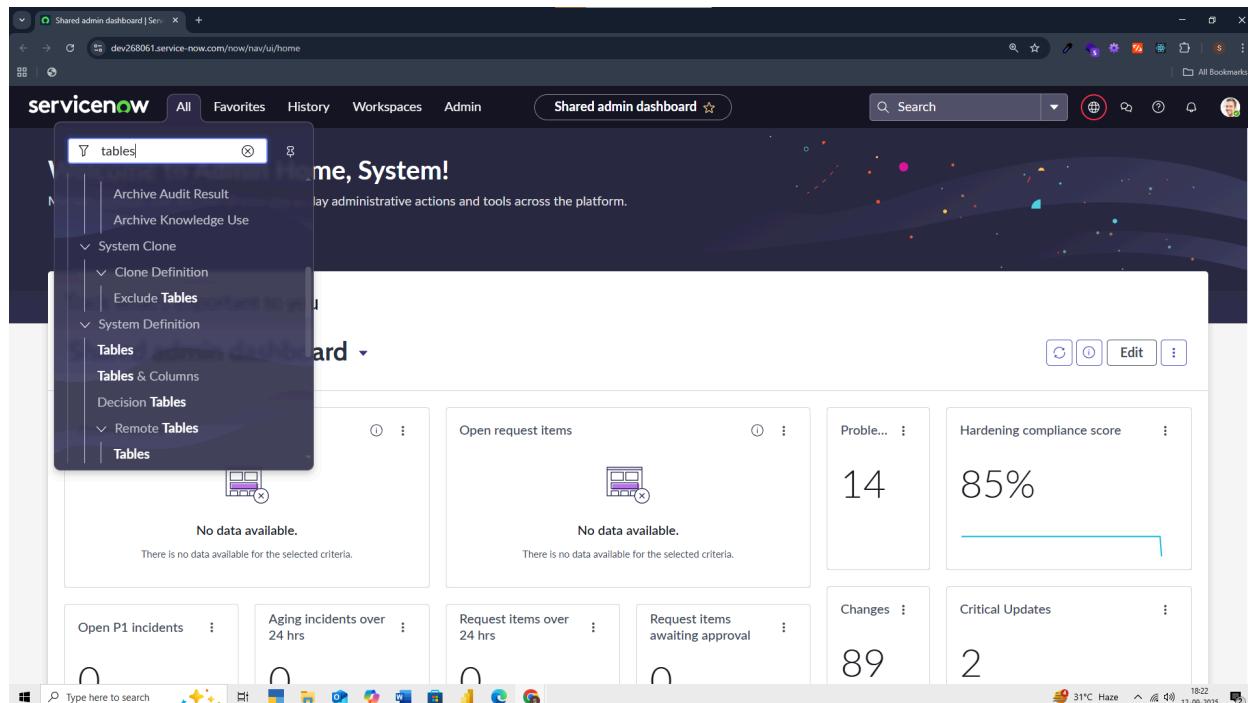
Label	Value	Language	Sequence	Inactive	Updated
Prept	Prept	en	1	false	2025-09-04 20:08:27
Nursery	Nursery	en	2	false	2025-09-04 20:08:49
UKG	UKG	en	3	false	2025-09-04 20:09:11
I	1st	en	4	false	2025-09-04 20:07:40
II	2nd	en	5	false	2025-09-04 20:09:21
III	3rd	en	6	false	2025-09-04 20:09:24
IV	4th	en	7	false	2025-09-04 20:09:27
V	5th	en	8	false	2025-09-04 20:09:29
VI	6th	en	9	false	2025-09-04 20:09:33
VII	7th	en	10	false	2025-09-04 20:09:36
VIII	8th	en	11	false	2025-09-04 20:09:44
IX	9th	en	12	false	2025-09-04 20:09:47
X	10th	en	13	false	2025-09-04 20:09:53



Label	Value	Language	Sequence	Inactive	Updated
Prept	Prept	en	1	false	2025-09-04 20:08:27
Nursery	Nursery	en	2	false	2025-09-04 20:08:49
UKG	UKG	en	3	false	2025-09-04 20:09:11
I	1st	en	4	false	2025-09-04 20:07:40
II	2nd	en	5	false	2025-09-04 20:09:21
III	3rd	en	6	false	2025-09-04 20:09:24
IV	4th	en	7	false	2025-09-04 20:09:27
V	5th	en	8	false	2025-09-04 20:09:29
VI	6th	en	9	false	2025-09-04 20:09:33
VII	7th	en	10	false	2025-09-04 20:09:36
VIII	8th	en	11	false	2025-09-04 20:09:44
IX	9th	en	12	false	2025-09-04 20:09:47
X	10th	en	13	false	2025-09-04 20:09:53
XI					
XII					
XIII					

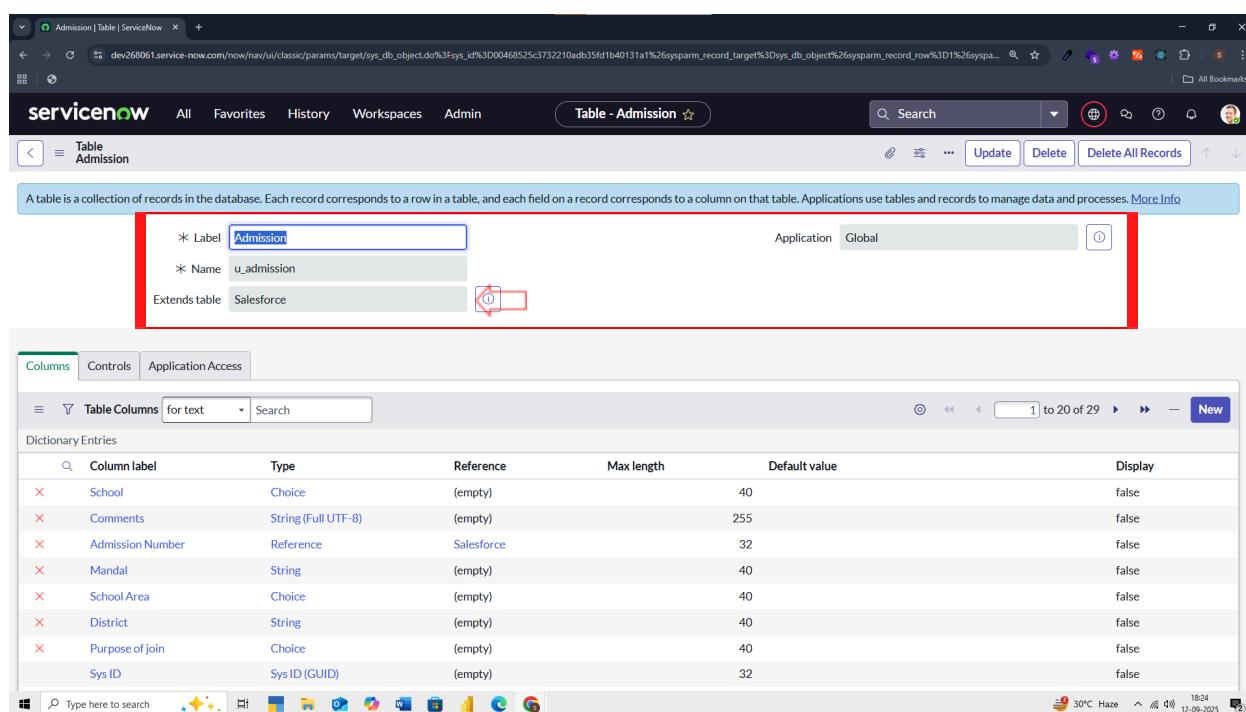
## Activity 2: Creating Salesforce Table

1. All >> System Definition >> Tables.



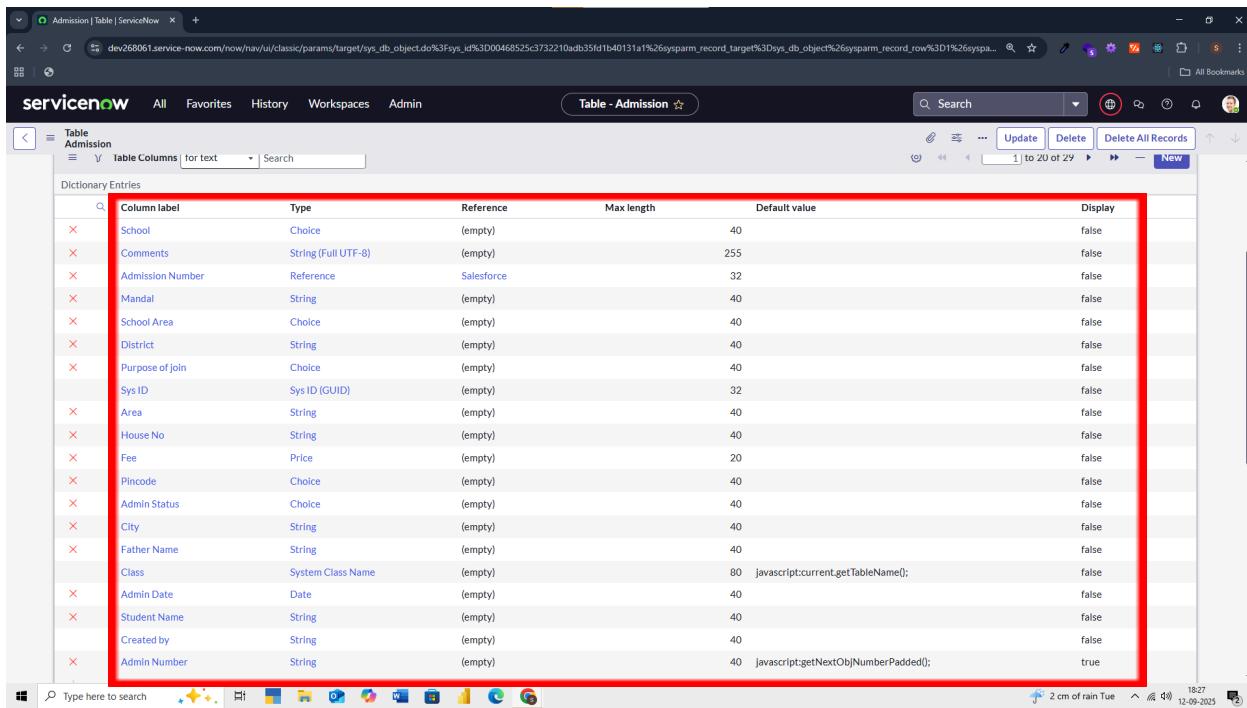
The screenshot shows the ServiceNow Shared admin dashboard. A search bar at the top left contains the text "tables". Below the search bar, a navigation menu is open, showing the path: All > System Definition > Tables. The main dashboard area displays various performance metrics and cards, such as "Open request items" (No data available), "Problem count" (14), "Hardening compliance score" (85%), and "Critical Updates" (2).

2. Click on new.
3. Enter the Label(Anything you want): Admission >> Click on Name it will Automatically generate Api name.
4. Select Extends Table >> Salesforce and also Select Add module to menu >> Salesforce.



The screenshot shows the "Table - Admission" configuration screen. The "Label" field is set to "Admission" and the "Name" field is set to "u\_admission". The "Extends table" dropdown is set to "Salesforce". The "Controls" tab is selected, showing a table of columns with their properties. The "Column label" column includes fields like "School", "Comments", "Admission Number", "Mandal", "School Area", "District", "Purpose of join", and "Sys ID". The "Type" column includes "Choice", "String (Full UTF-8)", "Reference", "String", "Choice", "String", "Choice", and "Sys ID (GUID)". The "Default value" column shows values like "40", "255", "32", "40", "40", "40", "40", and "32". The "Display" column shows "false" for all rows.

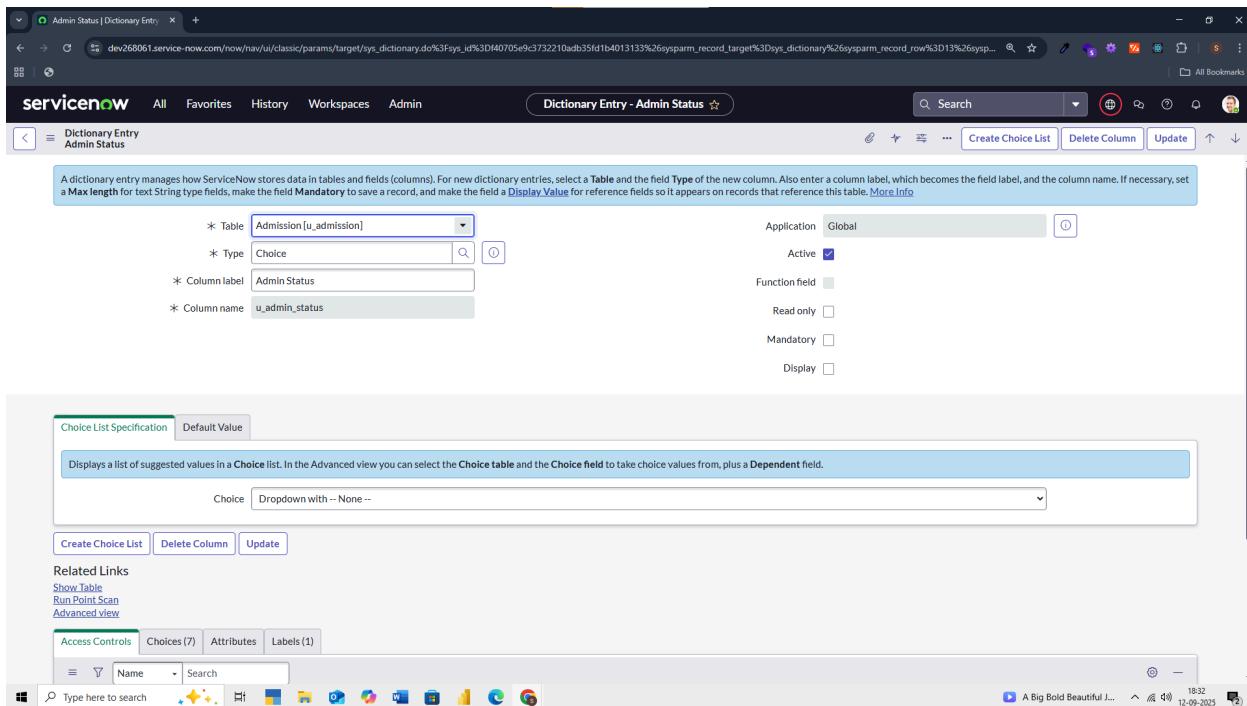
## 5. Create Fields as shown



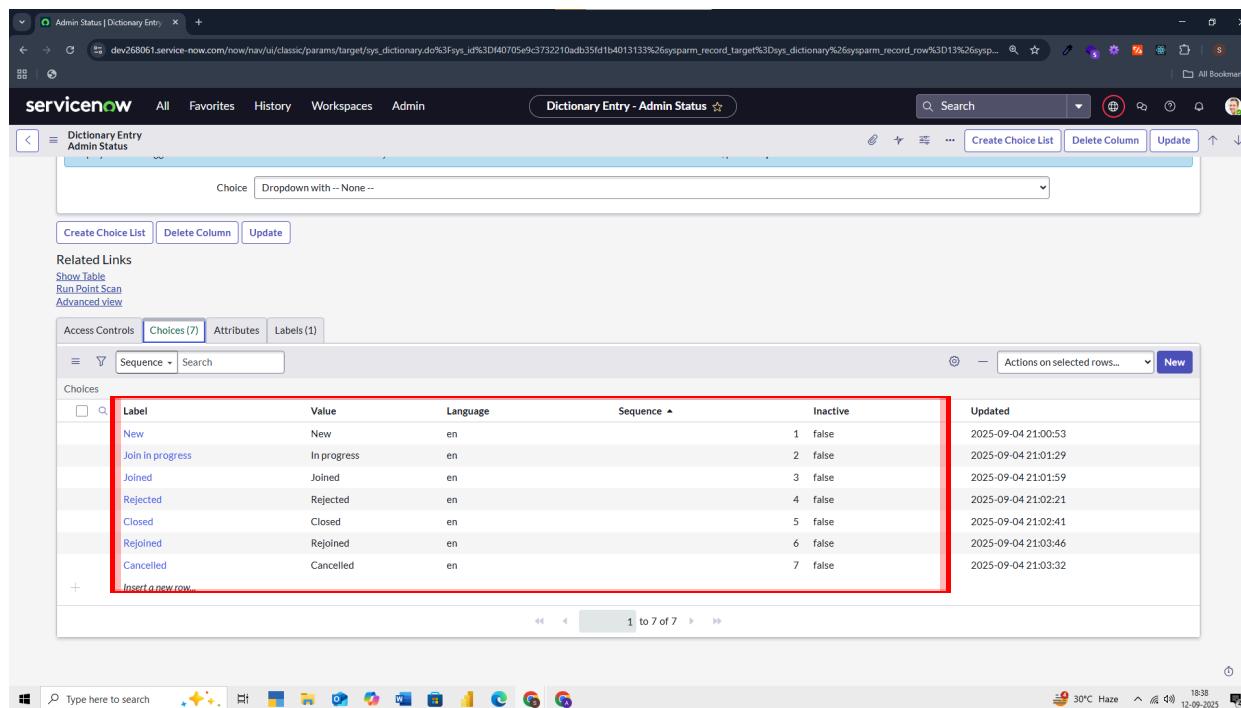
The screenshot shows the ServiceNow Table - Admission screen. A red box highlights the list of fields and their properties:

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

## 6. Click on “Admin Status” Column >> Click on Choices and give Label,Value and Sequence as given below.



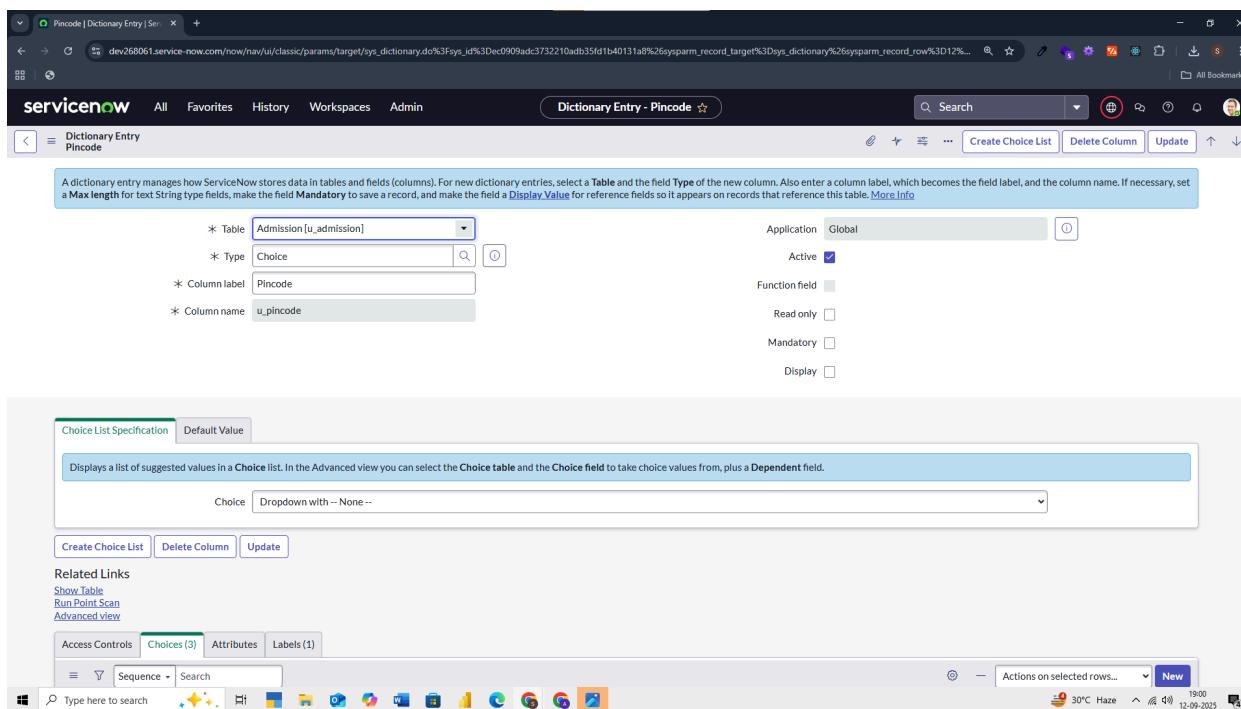
The screenshot shows the ServiceNow Dictionary Entry - Admin Status screen. The "Table" dropdown is set to "Admission [u\_admission]". The "Type" dropdown is set to "Choice". The "Column label" is "Admin Status" and the "Column name" is "u\_admin\_status". The "Display" checkbox is checked. The "Choices" tab is selected, showing a choice list specification with "Choice" set to "Dropdown with -- None --".



The screenshot shows the ServiceNow Dictionary Entry - Admin Status page. A table of choices is displayed, with the first seven rows highlighted by a red border. The columns are labeled: Label, Value, Language, Sequence, Inactive, and Updated. The data is as follows:

Label	Value	Language	Sequence	Inactive	Updated
New	New	en	1	false	2025-09-04 21:00:53
Join in progress	In progress	en	2	false	2025-09-04 21:01:29
Joined	Joined	en	3	false	2025-09-04 21:01:59
Rejected	Rejected	en	4	false	2025-09-04 21:02:21
Closed	Closed	en	5	false	2025-09-04 21:02:41
Rejoined	Rejoined	en	6	false	2025-09-04 21:03:46
Cancelled	Cancelled	en	7	false	2025-09-04 21:03:52

7. Click on “Pincode” Column >> Click on Choices and give Label,Value and Sequence as given below.

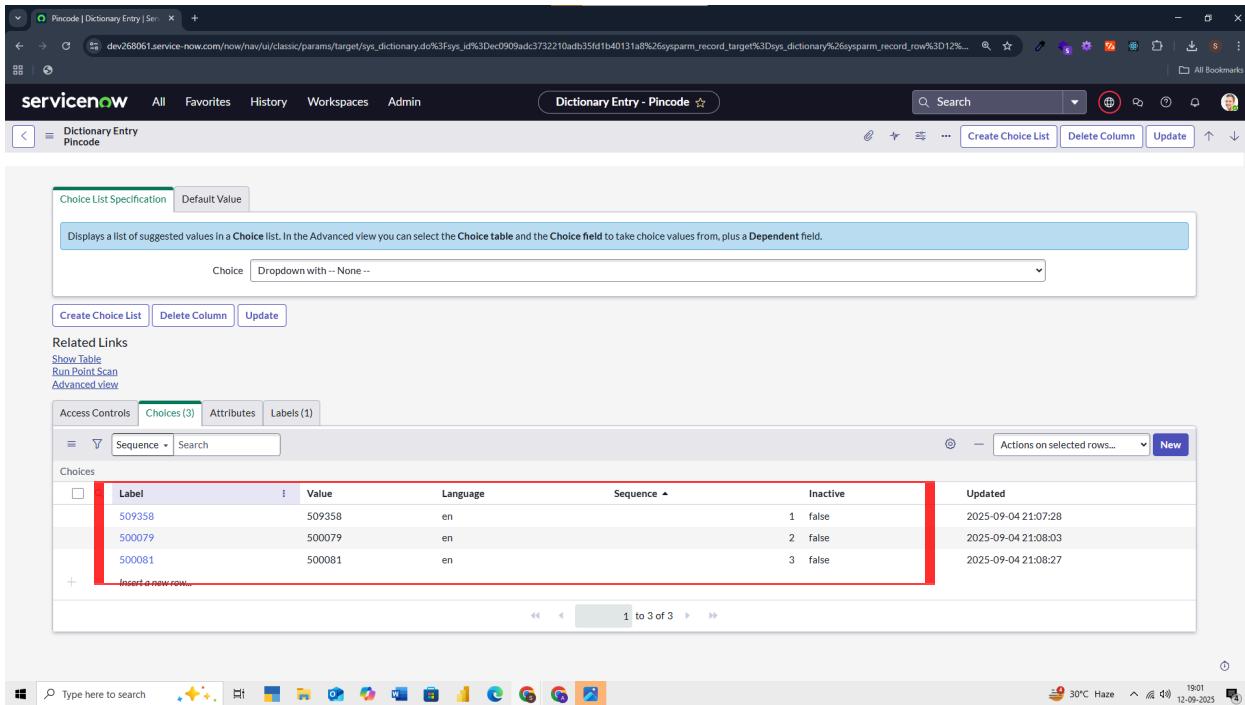


The screenshot shows the ServiceNow Dictionary Entry - Pincode page. The configuration details for the new column are as follows:

- \* Table: Admission [u\_admission]
- \* Type: Choice
- \* Column label: Pincode
- \* Column name: u\_pincode
- Application: Global
- Active:
- Function field:
- Read only:
- Mandatory:
- Display:

The Choices tab shows one choice entry:

Label	Value	Language	Sequence	Inactive	Updated
Dropdown with – None --					



This screenshot shows the ServiceNow Dictionary Entry interface for the 'Pincode' table. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The title bar says 'Dictionary Entry - Pincode'. The main content area is titled 'Choice List Specification'.

The description box states: 'Displays a list of suggested values in a Choice list. In the Advanced view you can select the Choice table and the Choice field to take choice values from, plus a Dependent field.'

The 'Choice' dropdown is set to 'Dropdown with -- None --'.

Below the table, there are buttons for 'Create Choice List', 'Delete Column', and 'Update'.

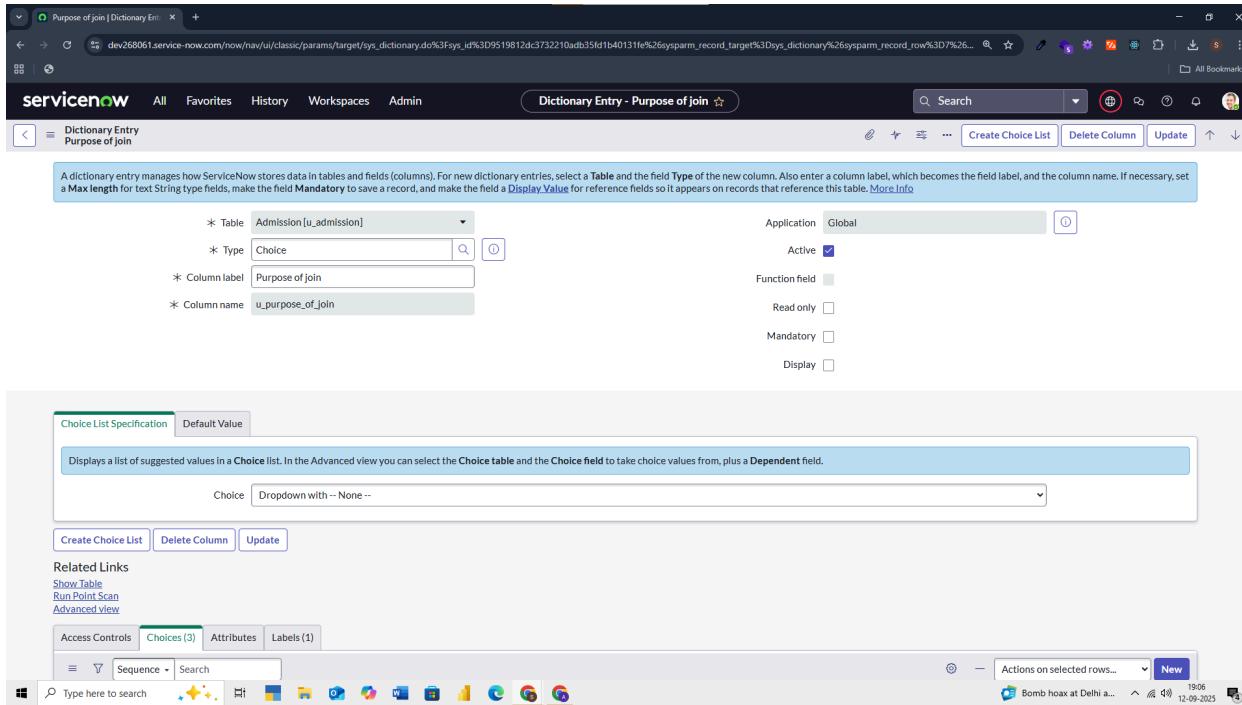
The 'Related Links' section includes 'Show Table', 'Run Point Scan', and 'Advanced view'.

The 'Choices' tab is selected, showing a table with three rows:

Label	Value	Language	Sequence	Inactive	Updated
509358	509358	en	1	false	2025-09-04 21:07:28
500079	500079	en	2	false	2025-09-04 21:08:03
500081	500081	en	3	false	2025-09-04 21:08:27

At the bottom of the table, there is a link 'Insert a new row...'.

8. Click on “Purpose of Join” Column >> Click on Choices and give Label,Value and Sequence as given below.



This screenshot shows the ServiceNow Dictionary Entry interface for the 'Purpose of join' column. The top navigation bar and title bar are identical to the previous screenshot.

The description box states: '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](#)'.

The configuration section includes:

- \* Table: Admission [u\_admission]
- \* Type: Choice
- \* Column label: Purpose of join
- \* Column name: u\_purpose\_of\_join
- Application: Global
- Active:
- Function field:
- Read only:
- Mandatory:
- Display:

The 'Choices' tab is selected, showing a table with one row:

Label	Value	Language	Sequence	Inactive	Updated
Purpose of join	1	en	1	false	2025-09-04 21:07:28

At the bottom of the table, there is a link 'Insert a new row...'.

Purpose of join | Dictionary Entry +

servicenow All Favorites History Workspaces Admin Dictionary Entry - Purpose of join Search

Dictionary Entry - Purpose of join Create Choice List Delete Column Update

Choice List Specification Default Value

Displays a list of suggested values in a Choice list. In the Advanced view you can select the Choice table and the Choice field to take choice values from, plus a Dependent field.

Choice Dropdown with -- None --

Create Choice List Delete Column Update

Related Links Show Table Run Point Scan Advanced view

Access Controls Choices (3) Attributes Labels (1)

Sequence ▾						Actions on selected rows... New
Choices	Label	Value	Language	Sequence	Inactive	Updated
	Tuition	Tuition	en	1	false	2025-09-04 21:09:33
	Coaching	Coaching	en	2	false	2025-09-04 21:09:48
	Teacher	Teacher	en	3	false	2025-09-04 21:10:09

Insert a new row...

1 to 3 of 3

Type here to search 19:07 12-09-2025

9. Click on “School” Column >> Click on Choices and give Label,Value and Sequence as given below.

Admission | Table | ServiceNow +

servicenow All Favorites History Workspaces Admin Table - Admission Search

Dictionary Entry - School Create Choice List Delete Column Update

\* Table: Admission [u.admission] \* Type: Choice \* Column label: School \* Column name: u.school

Application: Global Active:  Function field:  Read only:  Mandatory:  Display:

Reference Specification Choice List Specification Function Definition Default Value

Choice: Dropdown with -- None --

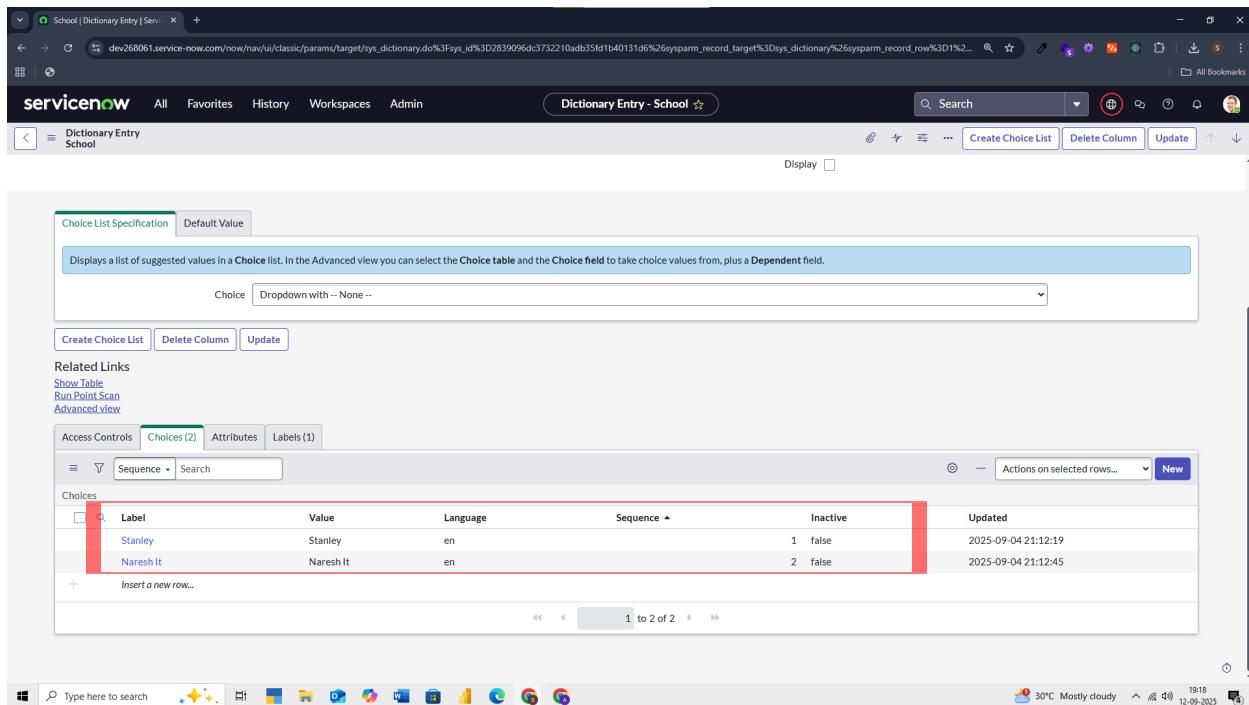
Create Choice List Delete Column Update

Related Links Show Table Run Point Scan Advanced view

Access Controls Choices (2) Attributes Labels (1)

Sequence ▾						Actions on selected rows... New
Choices	Label	Value	Language	Sequence	Inactive	Updated
	Stanley	Stanley	en	1	false	2025-09-04 21:12:19

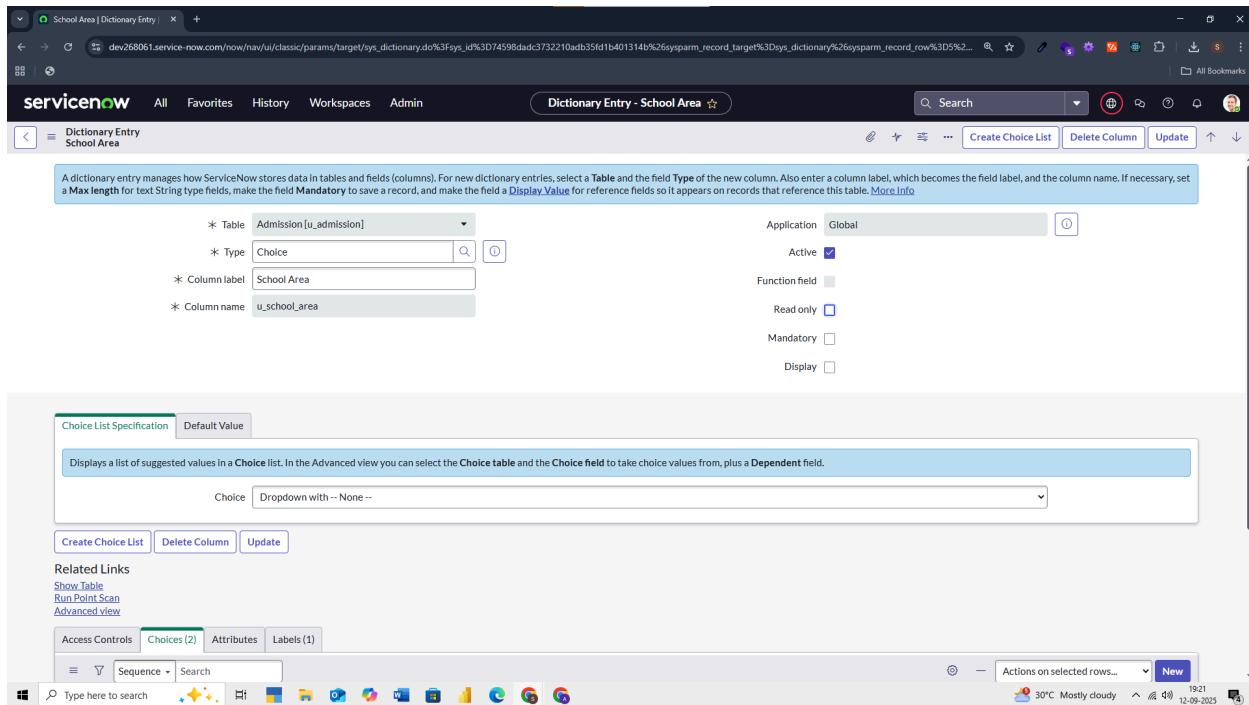
Type here to search 19:17 12-09-2025



The screenshot shows the ServiceNow Dictionary Entry - School page. The 'Choices' tab is selected under 'Access Controls'. The table displays two entries:

Label	Value	Language	Sequence	Inactive	Updated
Stanley	Stanley	en	1	false	2025-09-04 21:12:19
Nareesh It	Naresh It	en	2	false	2025-09-04 21:12:45

10. Click on “School Area” Column >> Click on Choices and give Label,Value and Sequence as given below.

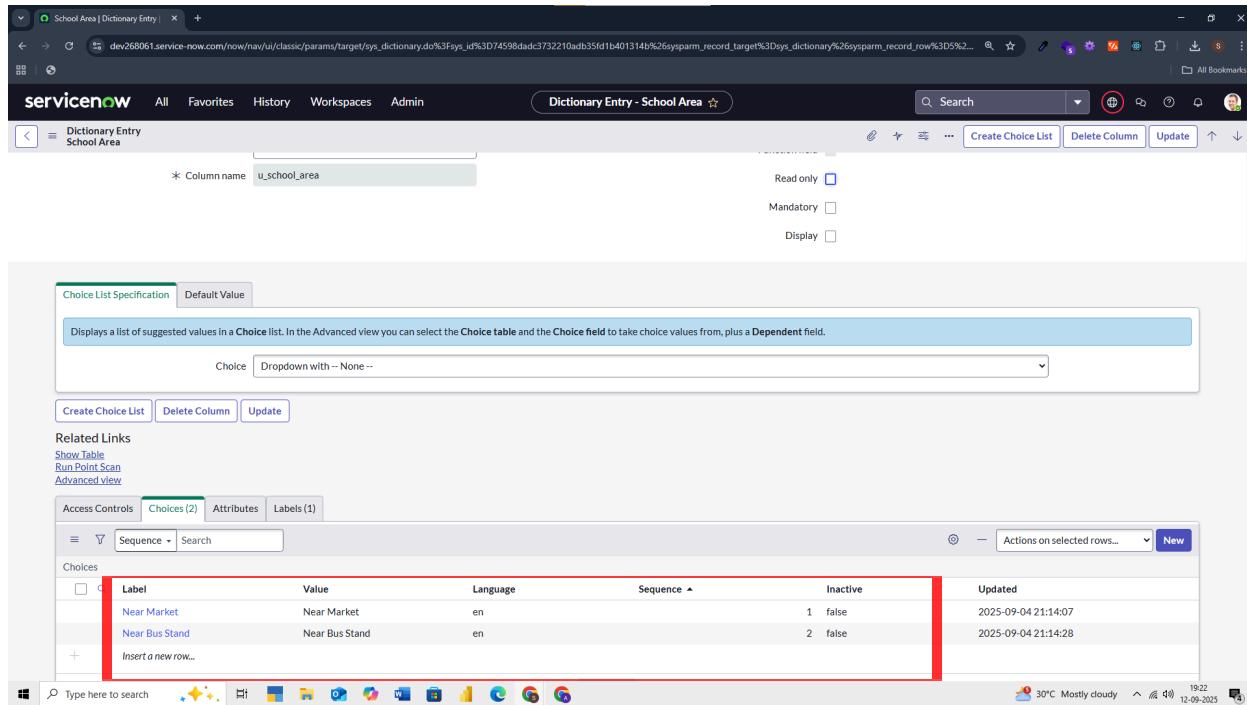


The screenshot shows the ServiceNow Dictionary Entry - School Area page. A new column 'u\_school\_area' is being configured:

- \* Table: Admission [u\_admission]
- \* Type: Choice
- \* Column label: School Area
- \* Column name: u\_school\_area
- Application: Global
- Active:
- Function field:
- Read only:
- Mandatory:
- Display:

The 'Choices' tab is selected under 'Access Controls'. The table displays two entries:

Label	Value	Language	Sequence	Inactive	Updated
Stanley	Stanley	en	1	false	2025-09-04 21:12:19
Nareesh It	Naresh It	en	2	false	2025-09-04 21:12:45

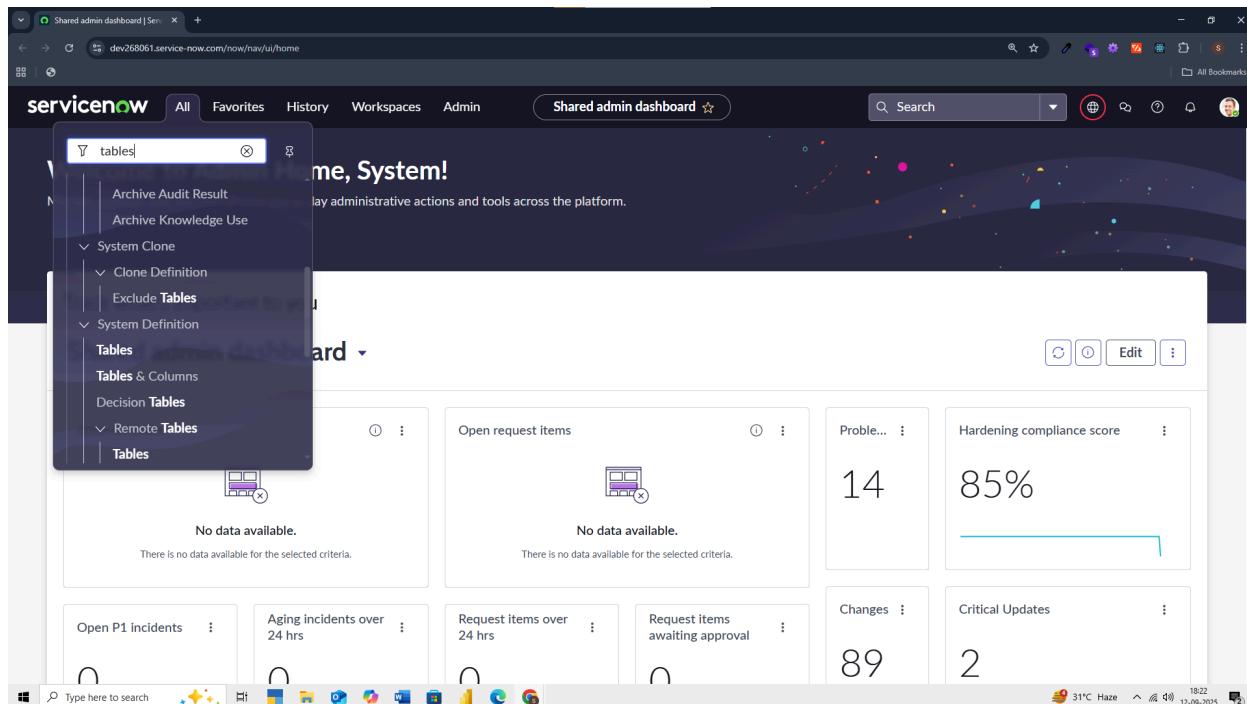


The screenshot shows the ServiceNow Dictionary Entry interface for the 'School Area' table. The column 'u\_school\_area' is being edited. A choice list specification is defined with a dropdown choice type. The choices table lists two entries: 'Near Market' and 'Near Bus Stand'. The 'Choices' tab is selected.

Label	Value	Language	Sequence	Inactive	Updated
Near Market	Near Market	en	1	false	2025-09-04 21:14:07
Near Bus Stand	Near Bus Stand	en	2	false	2025-09-04 21:14:28

## Activity 3: Creating Student Progress Table

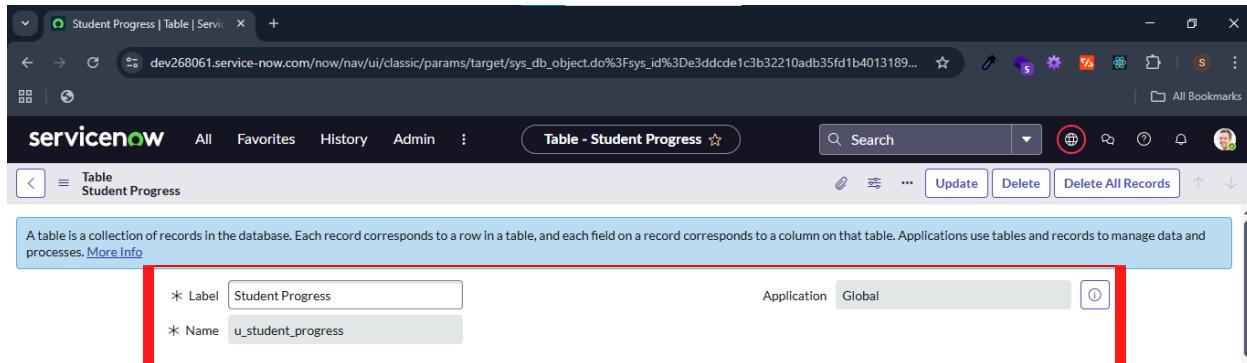
1. All >> System Definition >> Tables.



The screenshot shows the ServiceNow Shared admin dashboard. The navigation path 'System Definition > Tables' is highlighted in the sidebar search results. The main dashboard displays various system status cards.

2. Click on new.

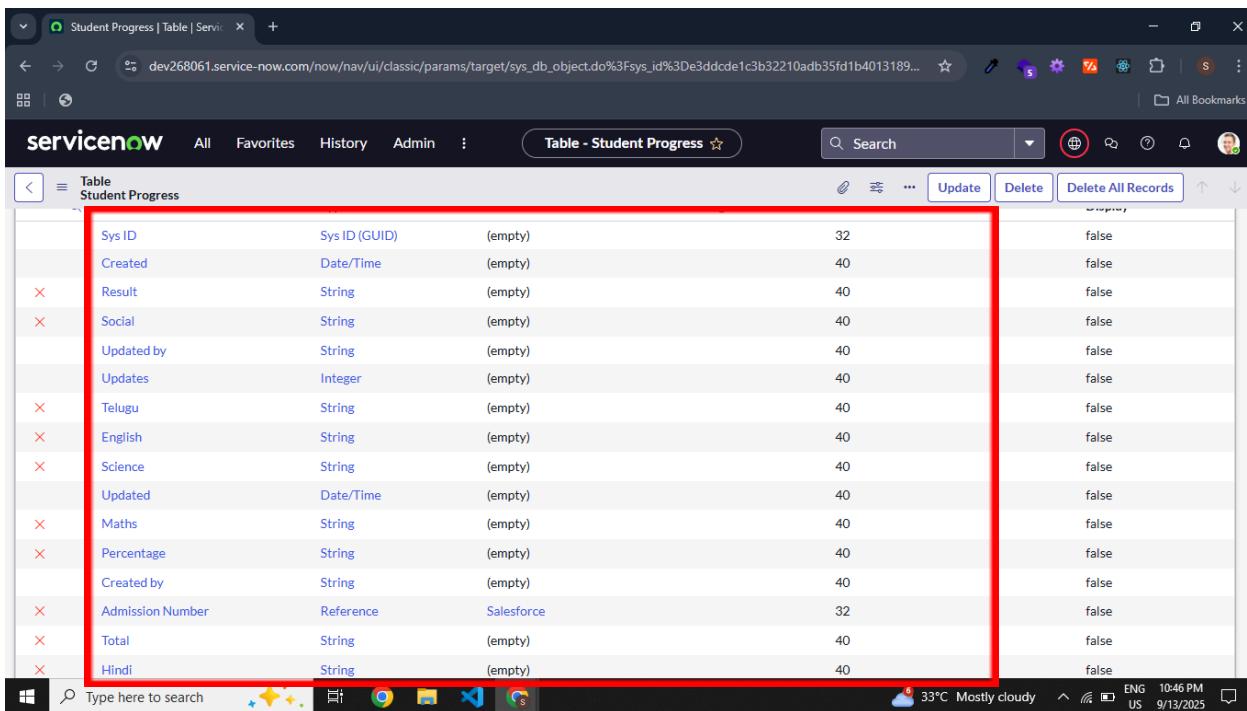
3. Enter the Label(Anything you want): Student Progress >> Click on Name it will Automatically generate Api name.



Column	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Result	String	(empty)	40		false
Social	String	(empty)	40		false

4. Select Add module to menu >> Salesforce.

5. Create Fields as shown.

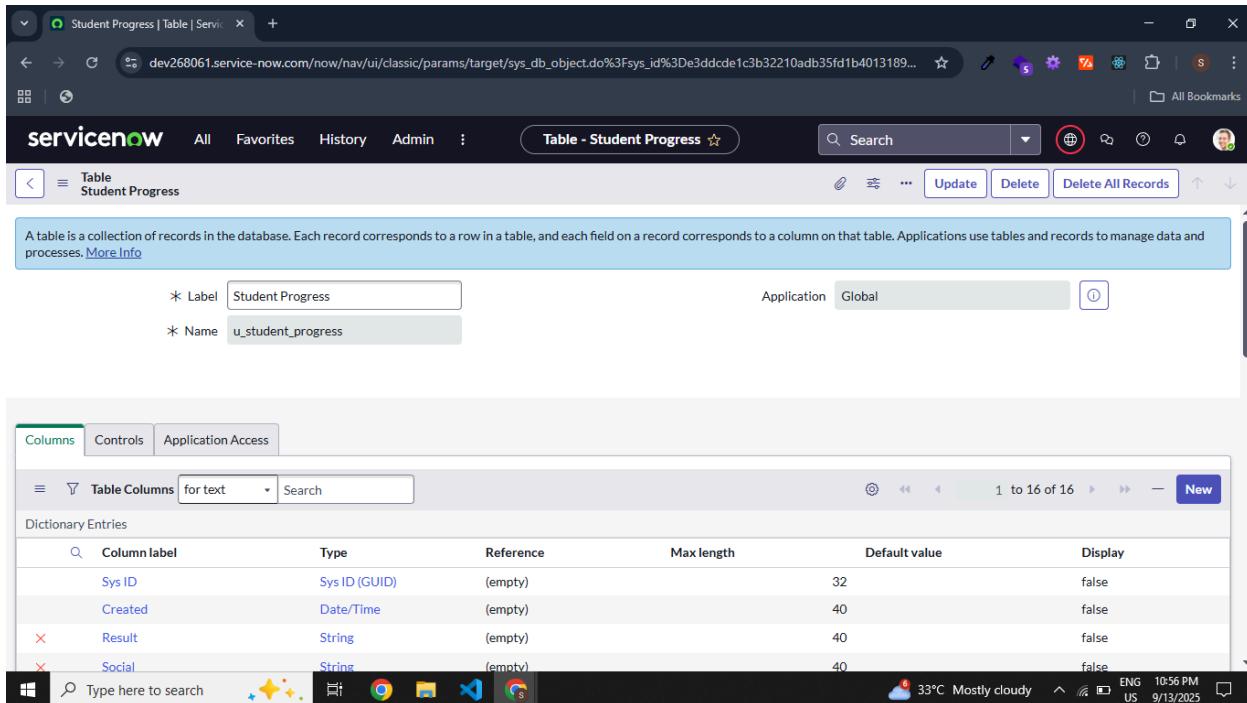


Field	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Result	String	(empty)	40		false
Social	String	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Telugu	String	(empty)	40		false
English	String	(empty)	40		false
Science	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Maths	String	(empty)	40		false
Percentage	String	(empty)	40		false
Created by	String	(empty)	40		false
Admission Number	Reference	Salesforce	32		false
Total	String	(empty)	40		false
Hindi	String	(empty)	40		false

## Milestone 4: Form Layout

### Activity 1: Configuring Table form for Student Progress Table

1. All >> System Definition >> Tables >> Student Progress Table.

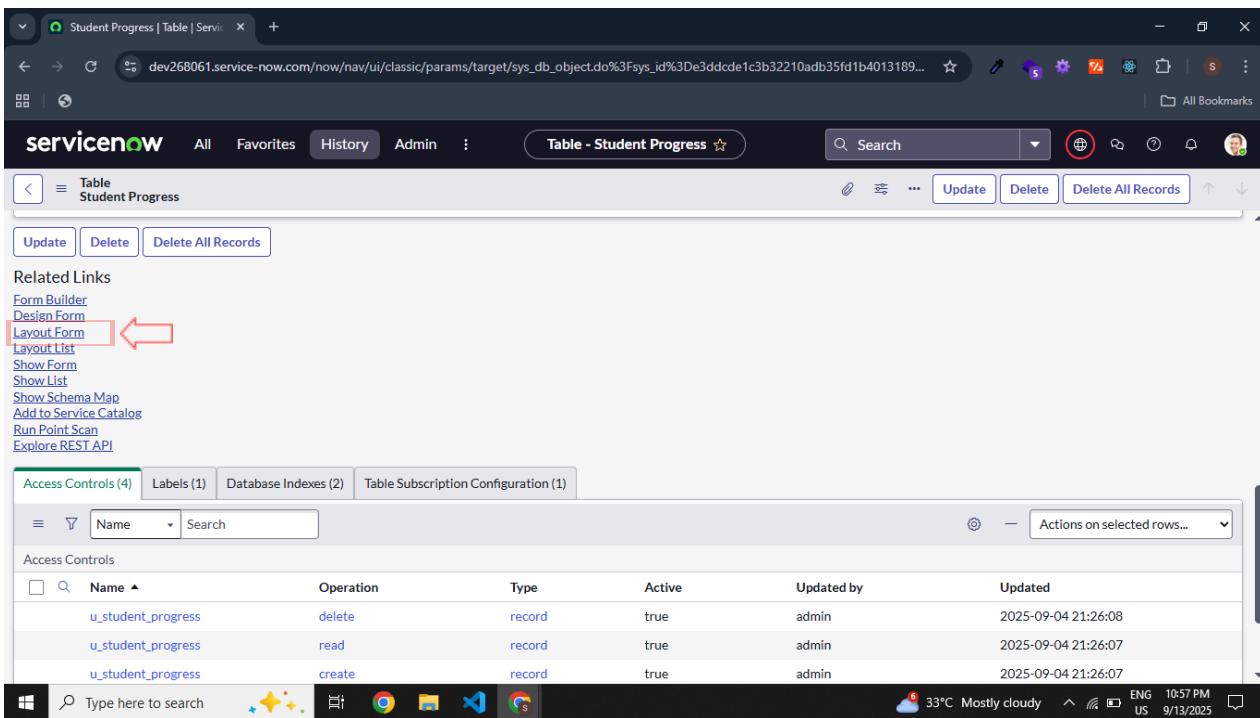


The screenshot shows the 'Table - Student Progress' configuration page in ServiceNow. The 'Columns' tab is active, displaying a list of columns:

Column label	Type	Reference	Max length	Default value	Display
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Result	String	(empty)	40		false
Social	String	(empty)	40		false

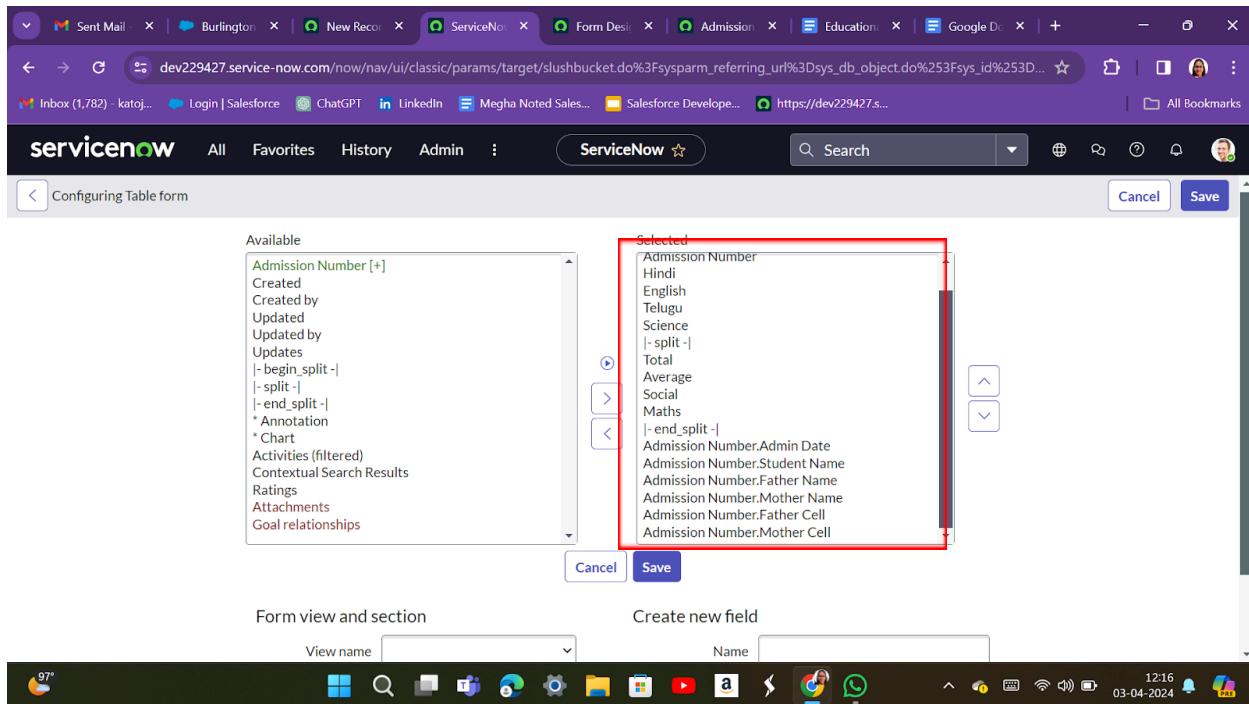
Below the table, the 'Related Links' section includes links such as Form Builder, Design Form, Layout Form (which is highlighted with a red box and a red arrow), Layout List, Show Form, Show List, Show Schema Map, Add to Service Catalog, Run Point Scan, and Explore REST API.

2. In the Student Progress Table Page , Click on Layout form .



The screenshot shows the 'Table - Student Progress' page. The 'Layout Form' link in the 'Related Links' section is highlighted with a red box and a red arrow pointing to it.

3. Click on Admission Number [+].
4. Select below Admission Number fields in Available side and send it to selected side as below >> save.

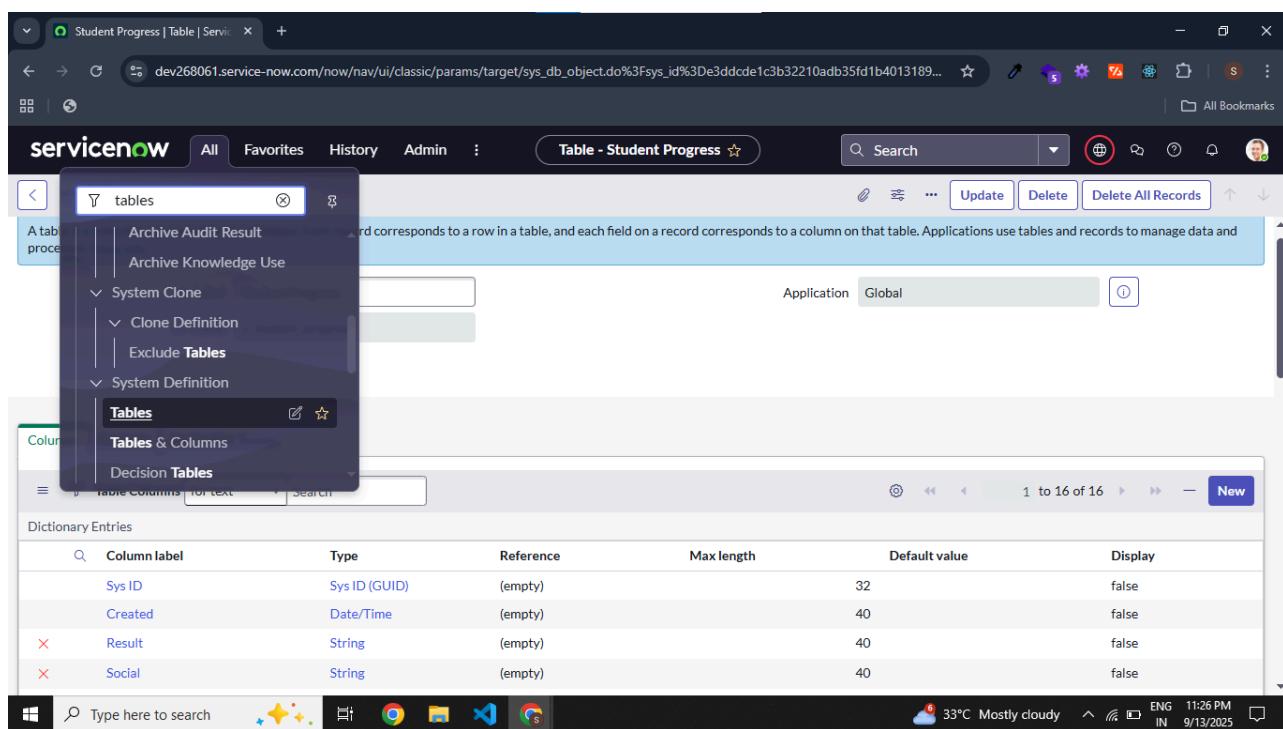


The screenshot shows the 'Configuring Table form' screen in ServiceNow. The 'Available' section contains a list of fields: Admission Number, Created, Created by, Updated, Updated by, Updates, |-begin\_split|, |-split-|, |-end\_split|, \* Annotation, \* Chart, Activities (filtered), Contextual Search Results, Ratings, Attachments, Goal relationships. The 'Selected' section contains a list of fields: Admission Number, Hindi, English, Telugu, Science, |-split-|, Total, Average, Social, Maths, |-end\_split|, Admission Number.Admin Date, Admission Number.Student Name, Admission Number.Father Name, Admission Number.Mother Name, Admission Number.Father Cell, Admission Number.Mother Cell. A red box highlights the 'Selected' list. Below the lists are 'Cancel' and 'Save' buttons. At the bottom, there are tabs for 'Form view and section' and 'Create new field', and a toolbar with various icons.

## Milestone 5: Configuring Table Form

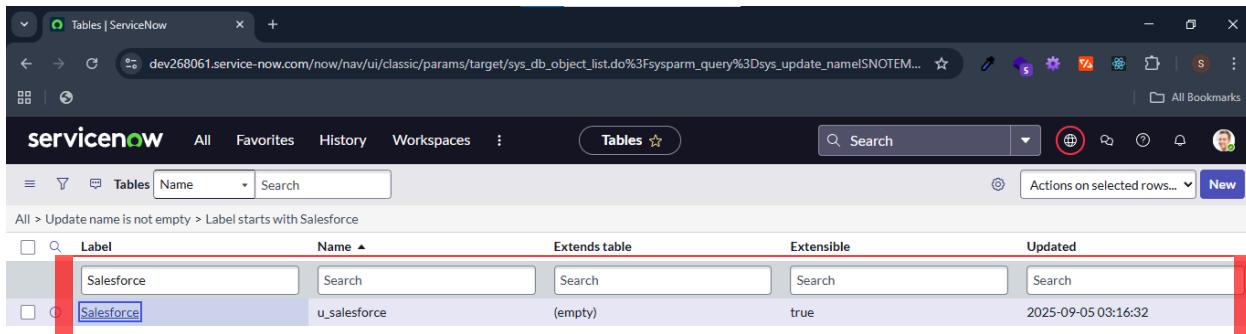
### Activity 1: Creating Form Design for Salesforce Table

1. All >> System Definition >> Tables.



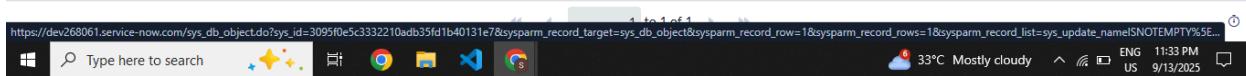
The screenshot shows the 'Table - Student Progress' screen in ServiceNow. A search bar at the top has 'tables' typed into it. A modal window titled 'Tables' is open, listing categories: Archive Audit Result, Archive Knowledge Use, System Clone, Clone Definition, Exclude Tables, System Definition, Decision Tables. 'Tables' is highlighted with a blue selection bar. Below the modal, the main table view shows columns: Column label, Type, Reference, Max length, Default value, Display. Rows include Sys ID (Sys ID (GUID)), Created (Date/Time), Result (String), Social (String). At the bottom, there are buttons for 'New', 'Delete All Records', and 'Update'.

2. In Label Search for Salesforce and open.

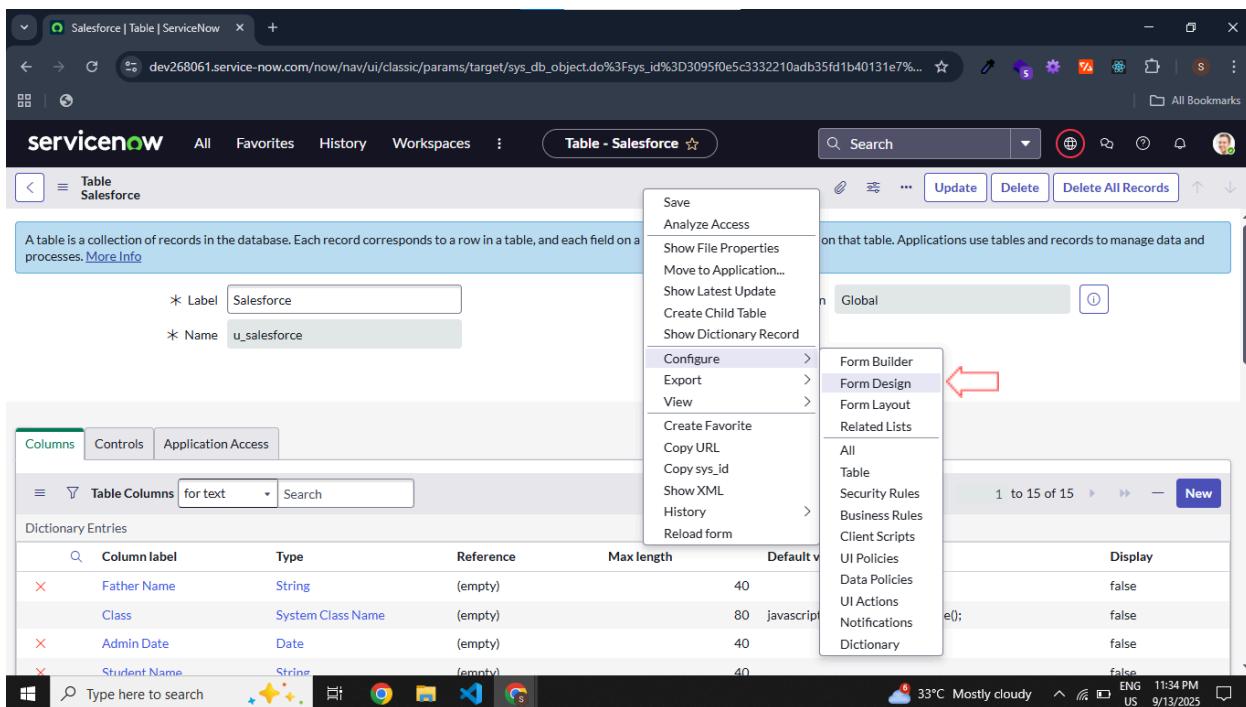


The screenshot shows a ServiceNow browser interface with the URL [https://dev268061.service-now.com/nav-ui/classic/params/target/sys\\_db\\_object\\_list.do?sysparm\\_query%3Dsys\\_update\\_name!SNOTE...](https://dev268061.service-now.com/nav-ui/classic/params/target/sys_db_object_list.do?sysparm_query%3Dsys_update_name!SNOTE...). The search bar at the top contains "Search". Below it, a table titled "Tables" is displayed with the following columns: Label, Name, Extends table, Extensible, and Updated. A single row is selected, highlighted with a red border, showing the following values:

Label	Name	Extends table	Extensible	Updated
Salesforce	Search	Search	Search	Search
Salesforce	u_salesforce	(empty)	true	2025-09-05 03:16:32

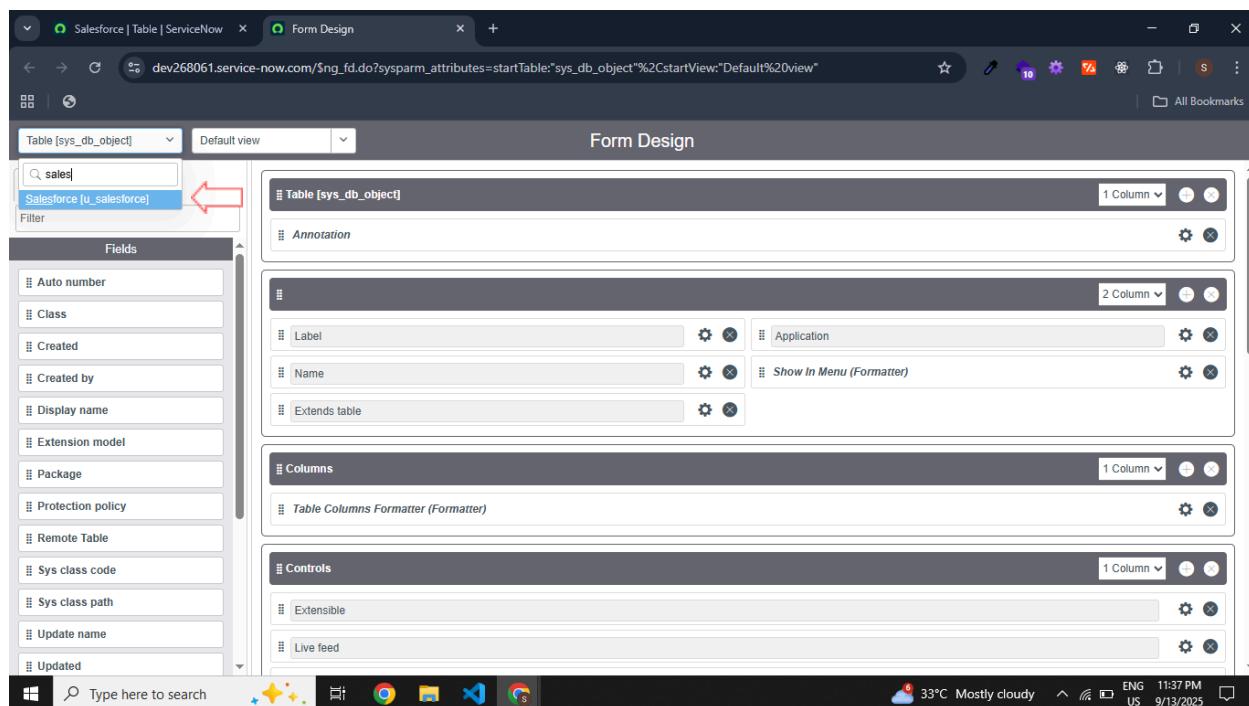


3. Right Click on top Toggle >> Configure >> Form Design.

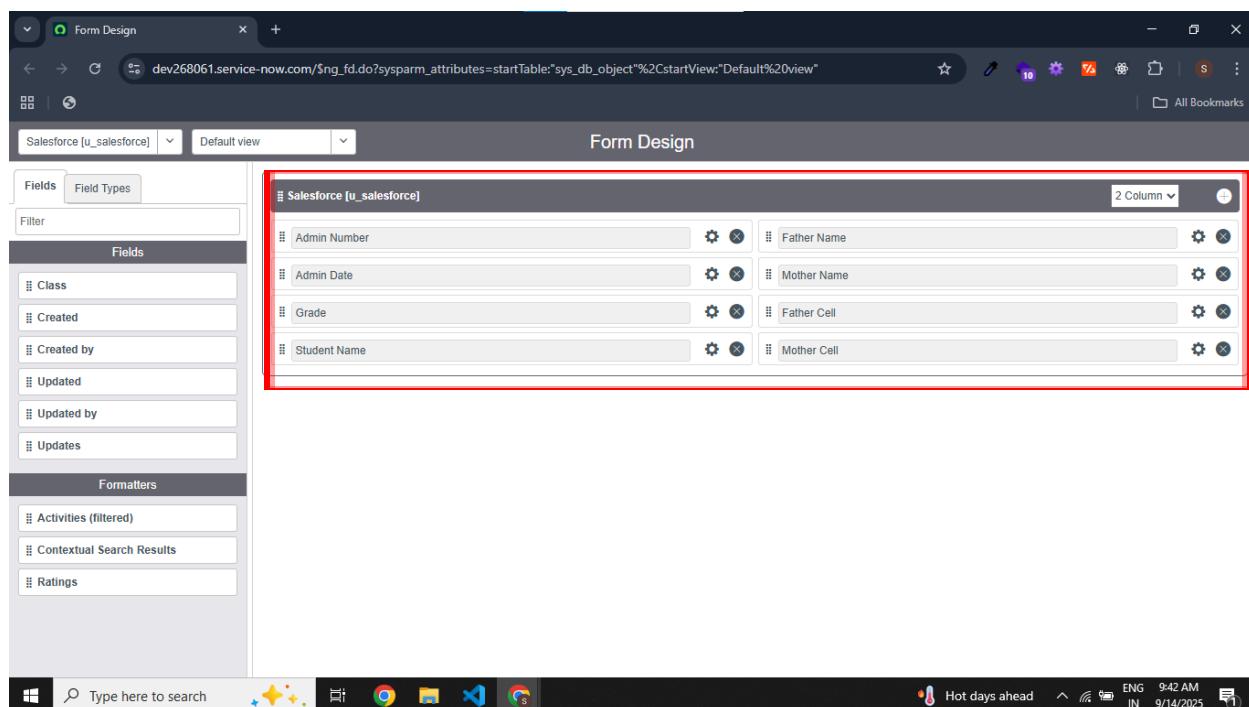


The screenshot shows a ServiceNow browser interface with the URL [https://dev268061.service-now.com/nav-ui/classic/params/target/sys\\_db\\_object.do?sys\\_id=3095f0e5c3332210adb35fd1b40131e7&sysparm\\_record\\_target=sys\\_db\\_object&sysparm\\_record\\_row=1&sysparm\\_record\\_rows=1&sysparm\\_record\\_list=sys\\_update\\_name!SNOTEEMPTY%5E...](https://dev268061.service-now.com/nav-ui/classic/params/target/sys_db_object.do?sys_id=3095f0e5c3332210adb35fd1b40131e7&sysparm_record_target=sys_db_object&sysparm_record_row=1&sysparm_record_rows=1&sysparm_record_list=sys_update_name!SNOTEEMPTY%5E...). The page title is "Table - Salesforce". A context menu is open over the table header, with the "Configure" option expanded. An arrow points from the text "In drop down select Salesforce(u\_salesforce)." to the "Form Design" item in the menu. The menu also lists other options like "Save", "Export", "View", "Create Favorite", "Copy URL", etc.

4. In drop down select Salesforce(u\_salesforce).



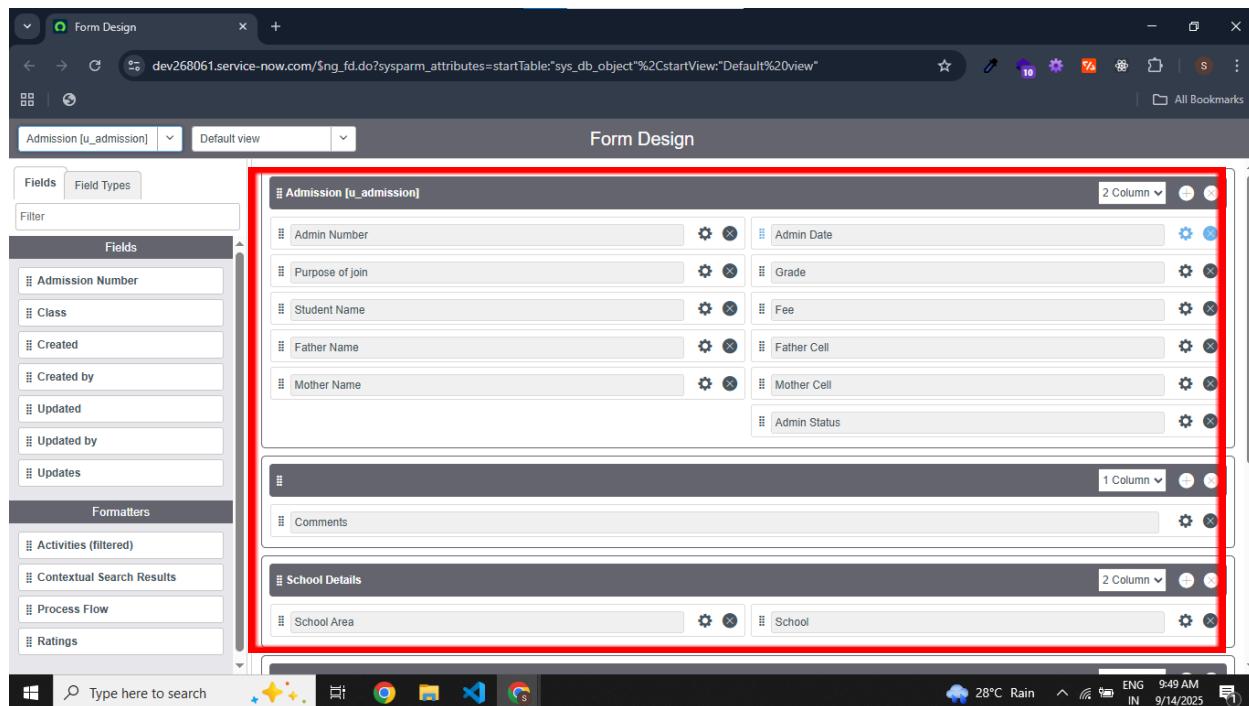
5. Drag and drop the fields to the left side as below.



6. Save.

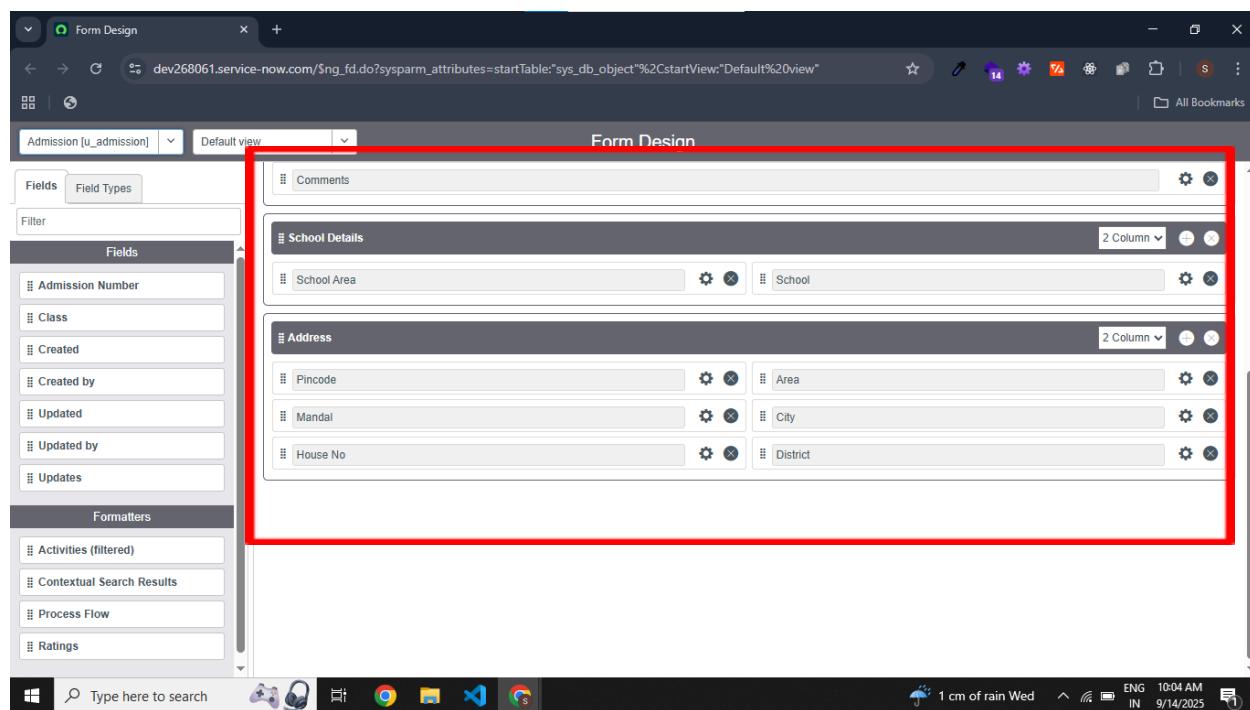
## Activity 2: Creating Form Design for Admission Table

- Follow the same steps as Activity1, Configure the fields as below.



The screenshot shows the 'Form Design' interface for the 'Admission [u\_admission]' table. The left sidebar lists various fields and formatters. The main area displays the form structure. A red box highlights the 'School Details' section, which contains two fields: 'School Area' and 'School'. Other visible fields include 'Comments', 'Admin Number', 'Purpose of join', 'Student Name', 'Father Name', 'Mother Name', 'Grade', 'Fee', 'Father Cell', 'Mother Cell', and 'Admin Status'.

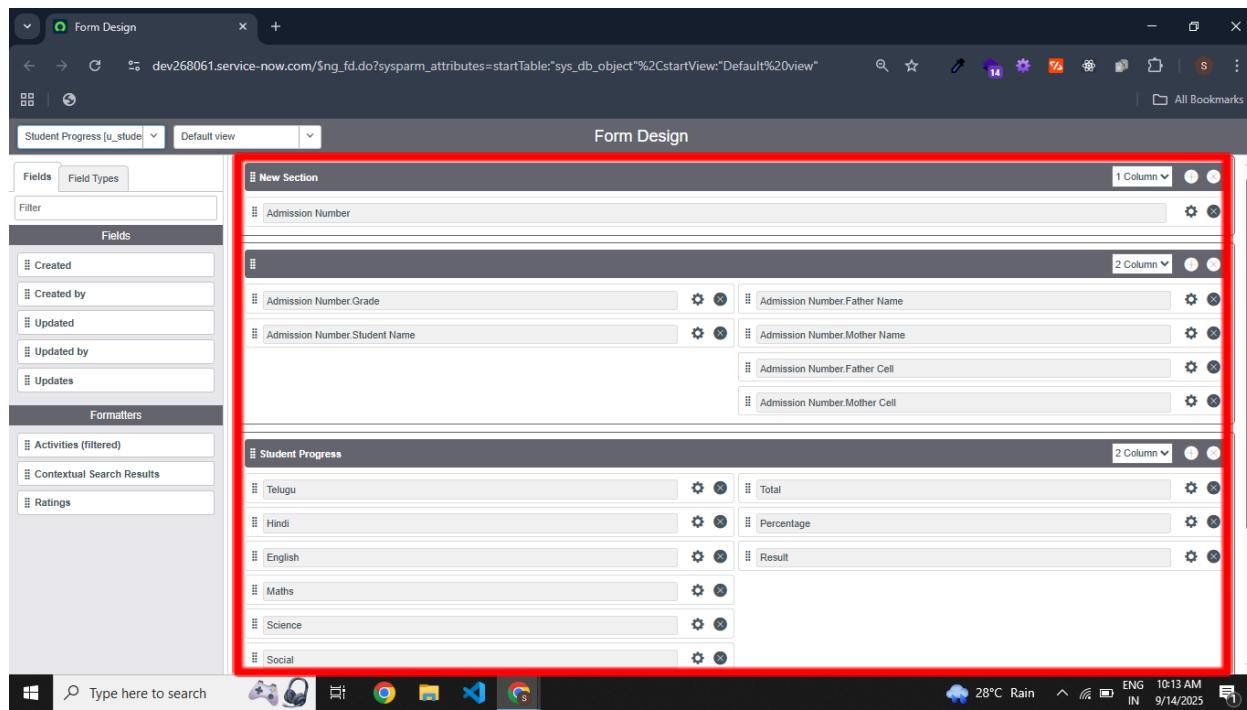
- Save.



The screenshot shows the 'Form Design' interface for the 'Admission [u\_admission]' table after saving changes. The left sidebar lists various fields and formatters. The main area displays the form structure. A red box highlights the 'Address' section, which contains four fields: 'Pincode', 'Area', 'Mandal', 'City', and 'House No'. Other visible sections include 'Comments' and 'School Details'.

## Activity 3: Creating Form Design for Student Progress Table

- Follow the same steps as Activity1, Configure the fields as below.



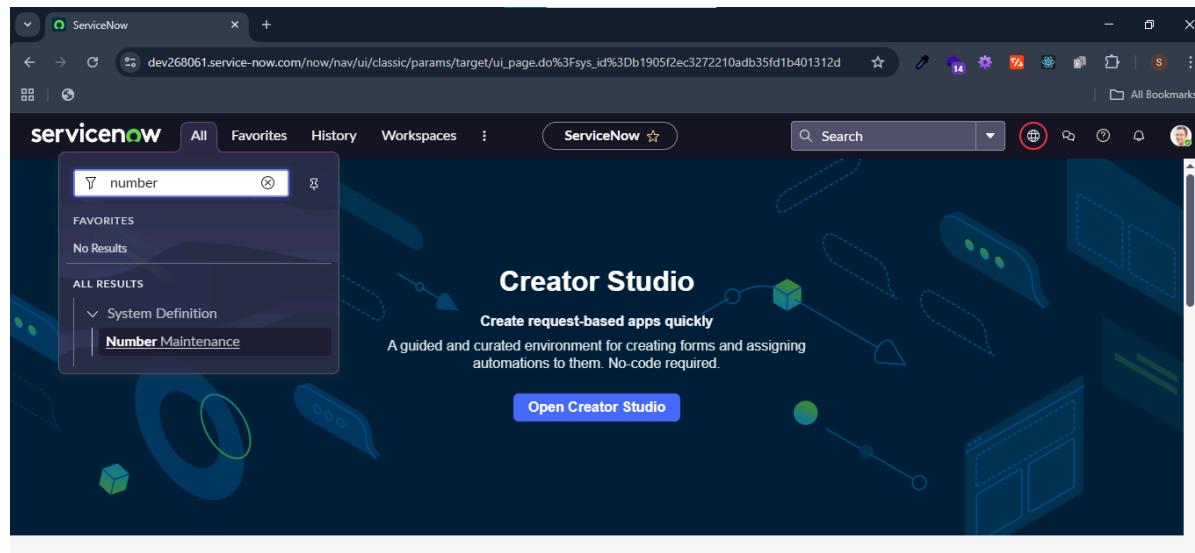
The screenshot shows the ServiceNow Form Design interface. On the left, there is a sidebar with tabs for 'Fields' and 'Field Types', and sections for 'Filter', 'Created', 'Created by', 'Updated', 'Updated by', 'Updates', 'Formatters', 'Activities (filtered)', 'Contextual Search Results', and 'Ratings'. The main area is titled 'Form Design' and contains a 'New Section' with two columns. The first column contains fields for 'Admission Number', 'Admission Number.Grade', 'Admission Number.Student Name', and 'Admission Number.Father Name'. The second column contains fields for 'Admission Number.Mother Name', 'Admission Number.Father Cell', and 'Admission Number.Mother Cell'. Below this section is another titled 'Student Progress' with a 2-column layout. The first column contains fields for 'Telugu', 'Hindi', 'English', 'Maths', 'Science', and 'Social'. The second column contains fields for 'Total', 'Percentage', and 'Result'. A red box highlights the entire 'Student Progress' section.

- Save.

## Milestone 6: Number Maintenance

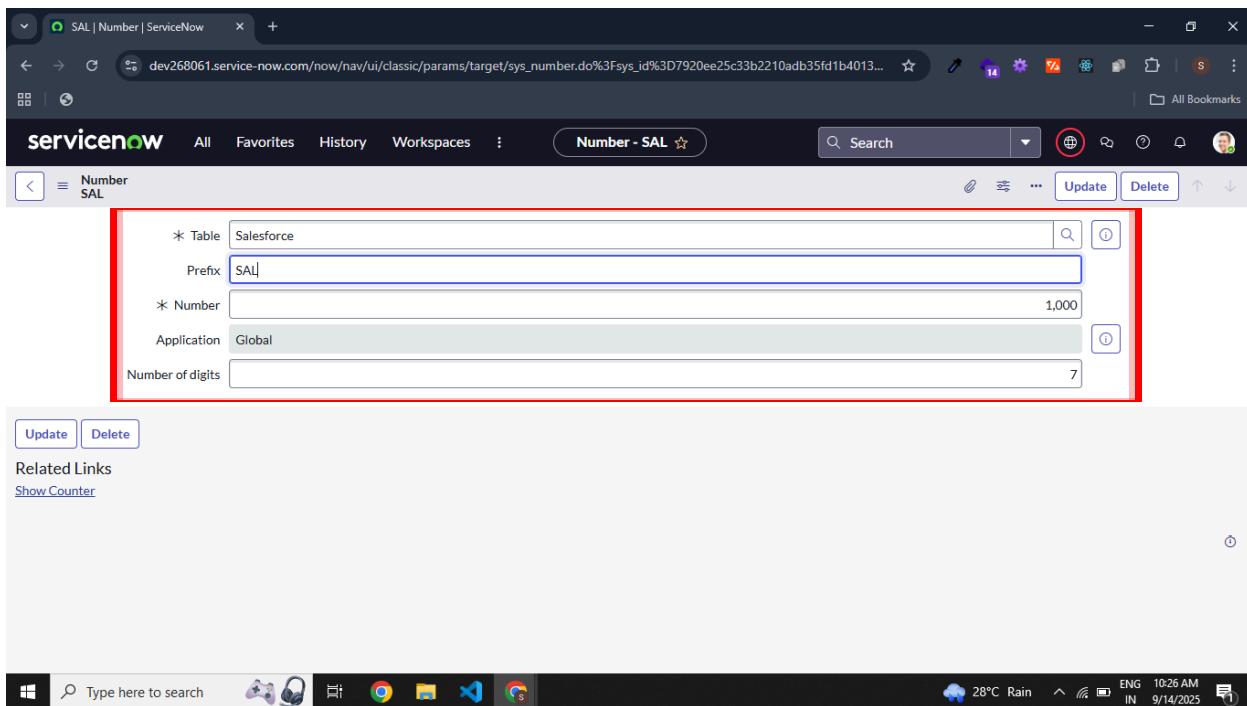
### Activity 1: Creating Number Maintenance for Admin Number

- All >> Number Maintenance >> New.



The screenshot shows the ServiceNow homepage. At the top, there is a search bar with the text 'number' and a navigation menu with tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'ServiceNow'. Below the menu is a search bar with the placeholder 'Search'. On the left, there is a sidebar with a search bar, 'FAVORITES' section (No Results), and 'ALL RESULTS' section (System Definition, Number Maintenance). The main area features a dark blue background with white text and graphics. It includes a 'Creator Studio' section with the text 'Create request-based apps quickly' and 'A guided and curated environment for creating forms and assigning automations to them. No-code required.' A blue button labeled 'Open Creator Studio' is visible. At the bottom, there is a banner with the text 'GO FURTHER Power your workflow applications.' and a 'Power your workflow applications.' button.

2. Fill the details >> Submit.



servicenow All Favorites History Workspaces : Number - SAL ☆

Number SAL

\* Table Salesforce

Prefix SAL

\* Number 1,000

Application Global

Number of digits 7

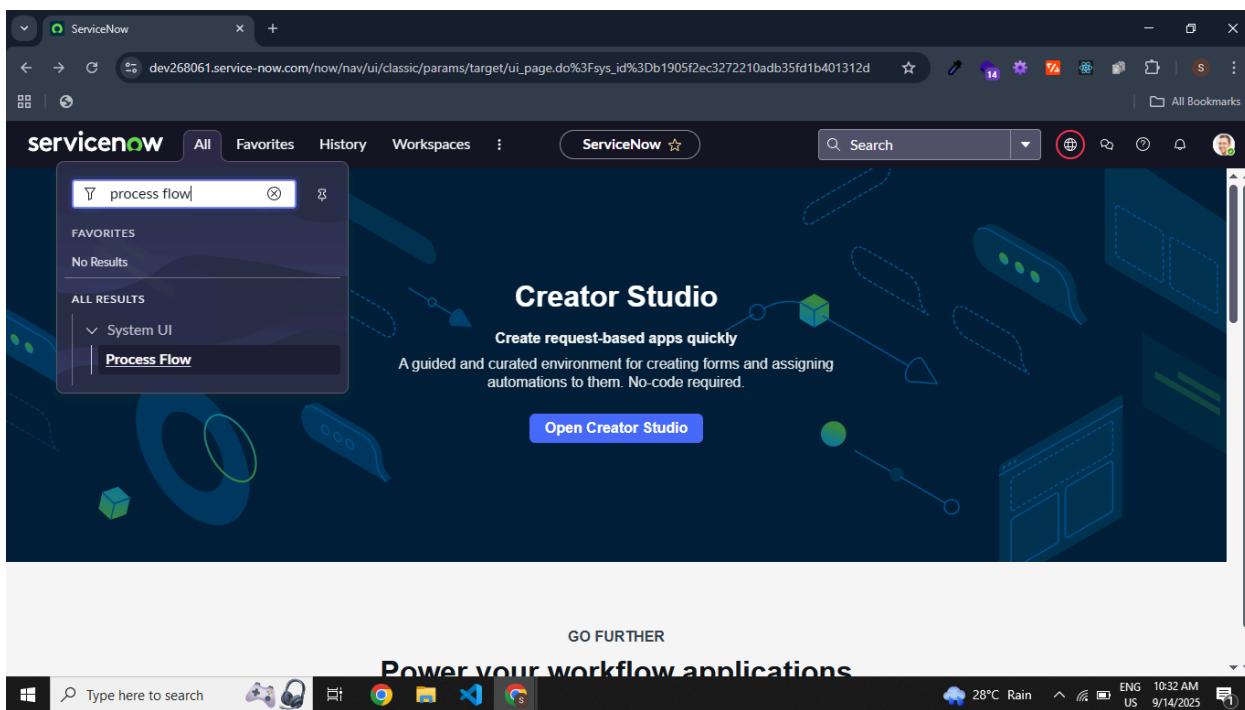
Update Delete

Related Links Show Counter

## Milestone 7: Process Flow

### Activity 1: Creating Process Flow for Admission Table.

1. All >> Process Flow >> New.



ServiceNow All Favorites History Workspaces : ServiceNow ☆

process flow

FAVORITES

No Results

ALL RESULTS

System UI

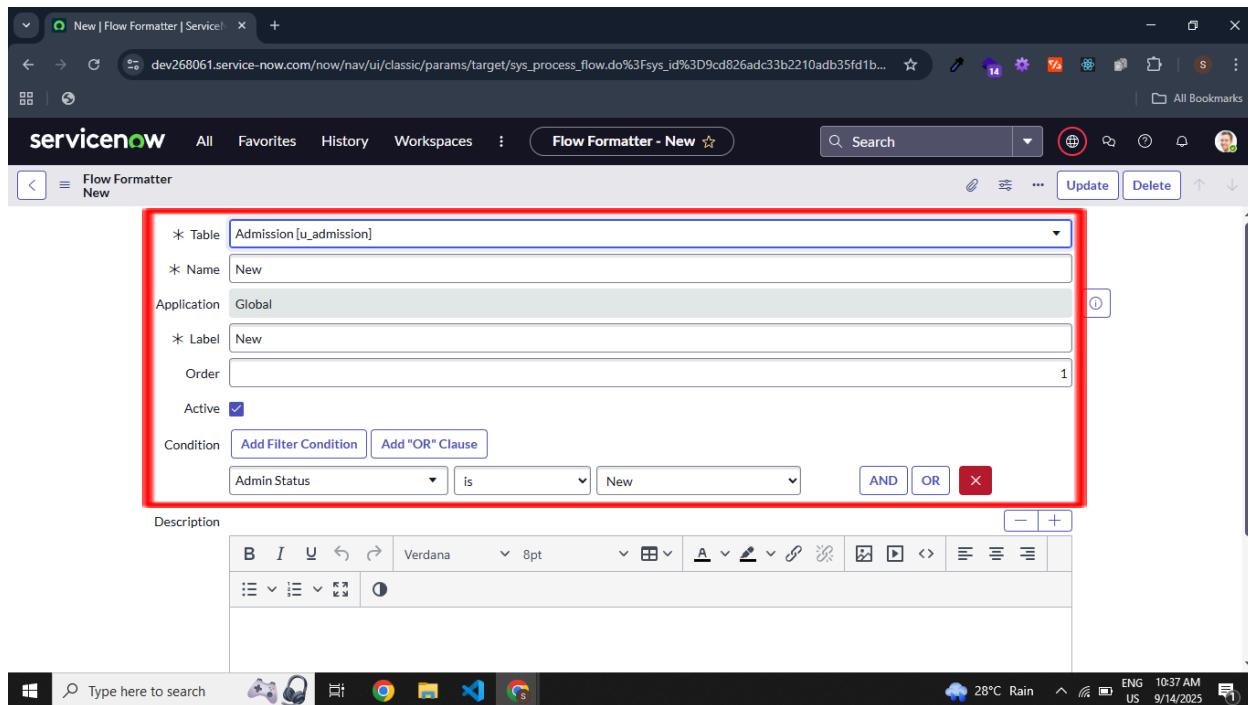
**Process Flow**

**Creator Studio**  
Create request-based apps quickly  
A guided and curated environment for creating forms and assigning automations to them. No-code required.  
**Open Creator Studio**

GO FURTHER

Power your workflow applications

2. Fill the Details as given Below.

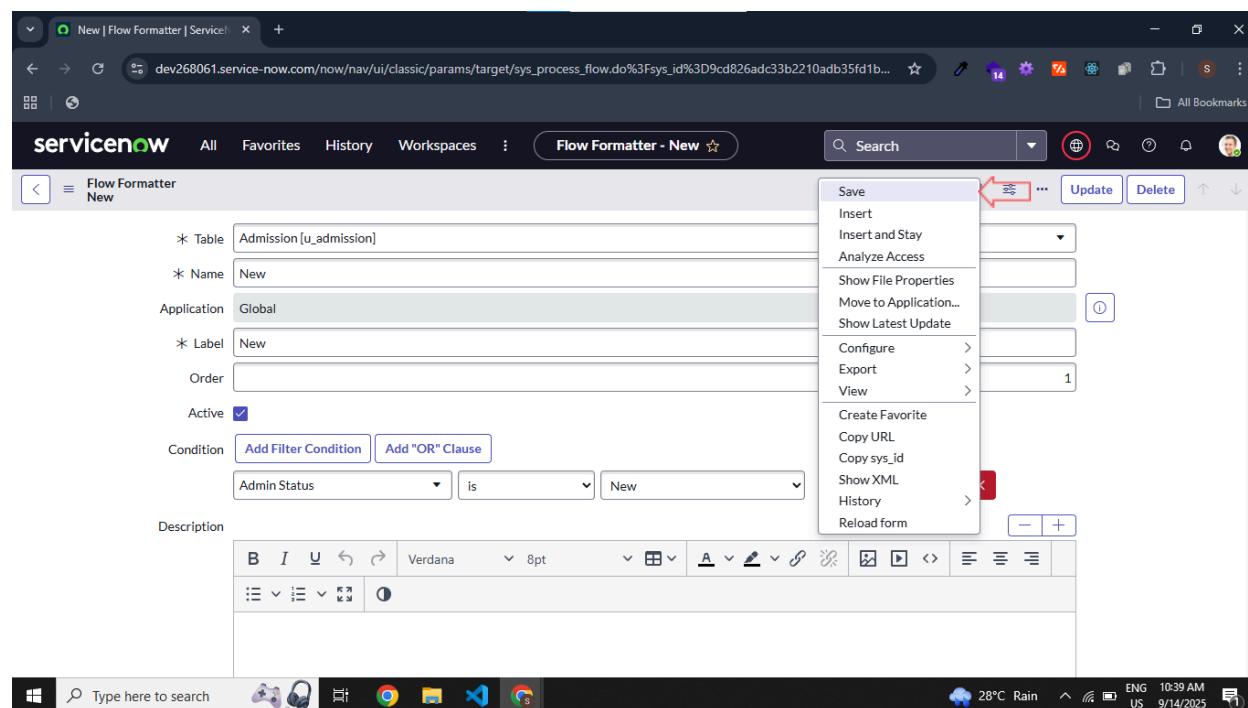


The screenshot shows the ServiceNow interface for creating a new Flow Formatter. The main area displays a form with the following fields:

- \* Table: Admission [u\_admission]
- \* Name: New
- Application: Global
- \* Label: New
- Order: 1
- Active:
- Condition: Admin Status is New

Below the form is a rich text editor for the Description field. The top navigation bar includes tabs like All, Favorites, History, Workspaces, and a search bar. The bottom taskbar shows various application icons and system status.

3. Right Click on toggle and click on the save.

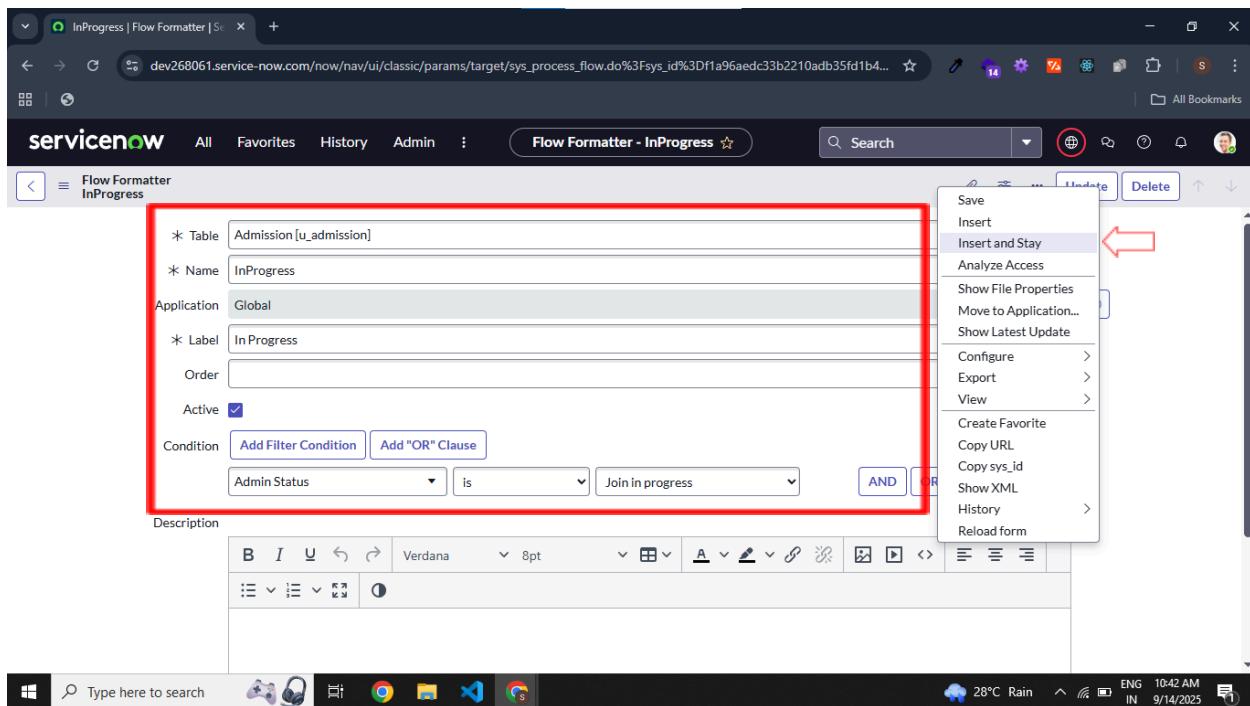


The screenshot shows the same ServiceNow interface, but now with a context menu open over the 'Update' button in the toolbar. The menu options include:

- Save (highlighted with a red arrow)
- Insert
- Insert and Stay
- Analyze Access
- Show File Properties
- Move to Application...
- Show Latest Update
- Configure >
- Export >
- View >
- Create Favorite
- Copy URL
- Copy sys\_id
- Show XML
- History >
- Reload form

The rest of the interface remains the same, showing the flow formatter configuration screen.

4. Replace the Name and Label as below and click on Insert on stay.

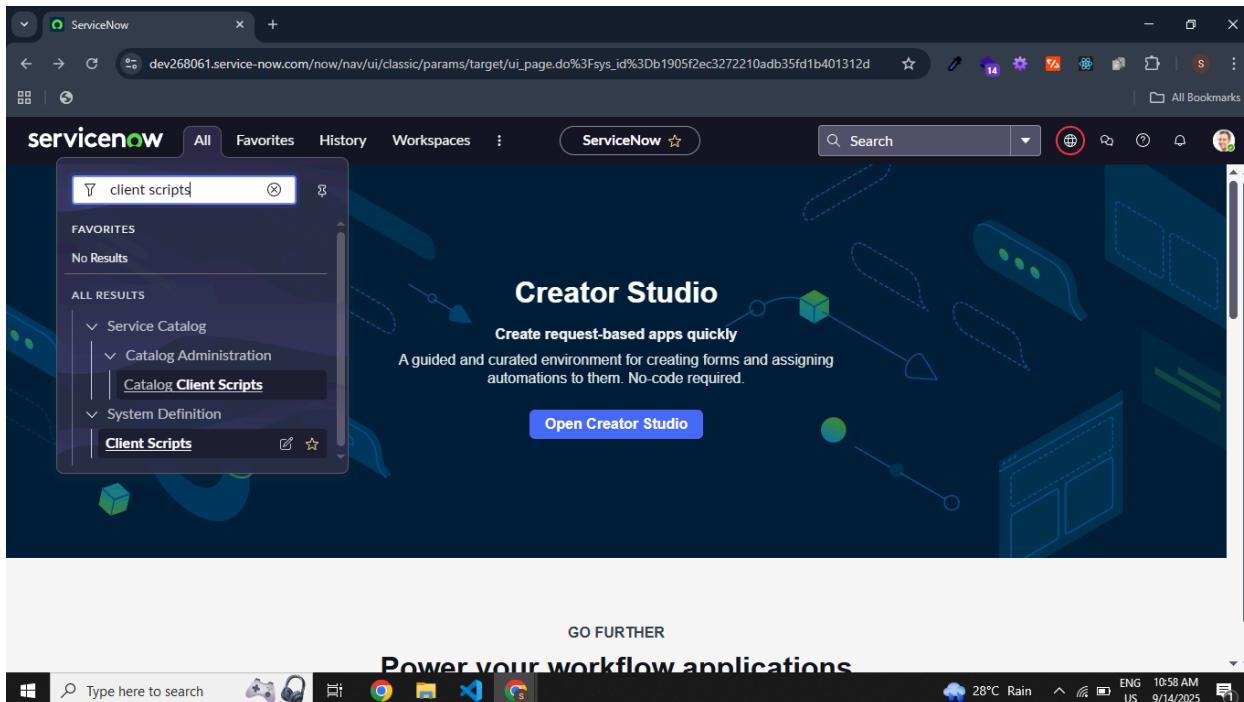


5. Replace the Name and Label in order and click on Insert on stay. Joined >> Rejected >> Rejoined >> Closed >> Cancelled.  
 6. Order should be New >> InProgress >> Joined >> Rejected >> Rejoined >> Closed >> Cancelled.

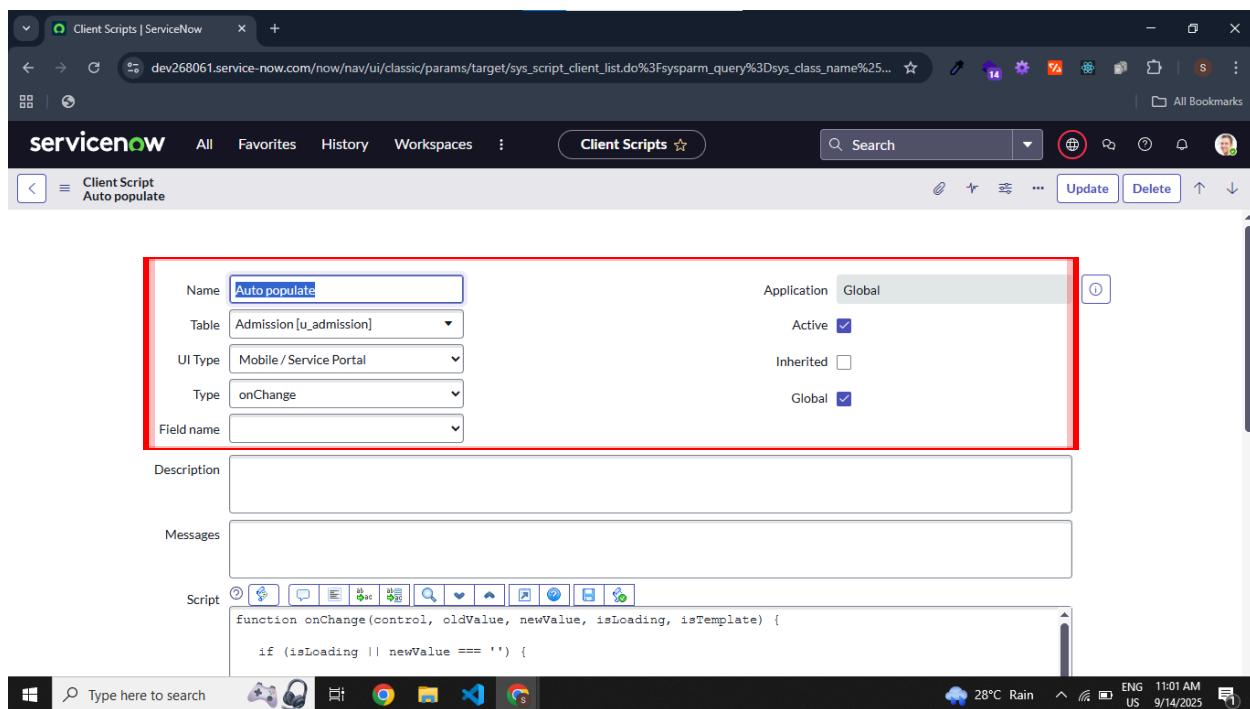
## Milestone 8: Client Script

### Activity 1: Creating “Auto populate” Client Scripts for Admission Table.

1. All >> Client Scripts >> New.

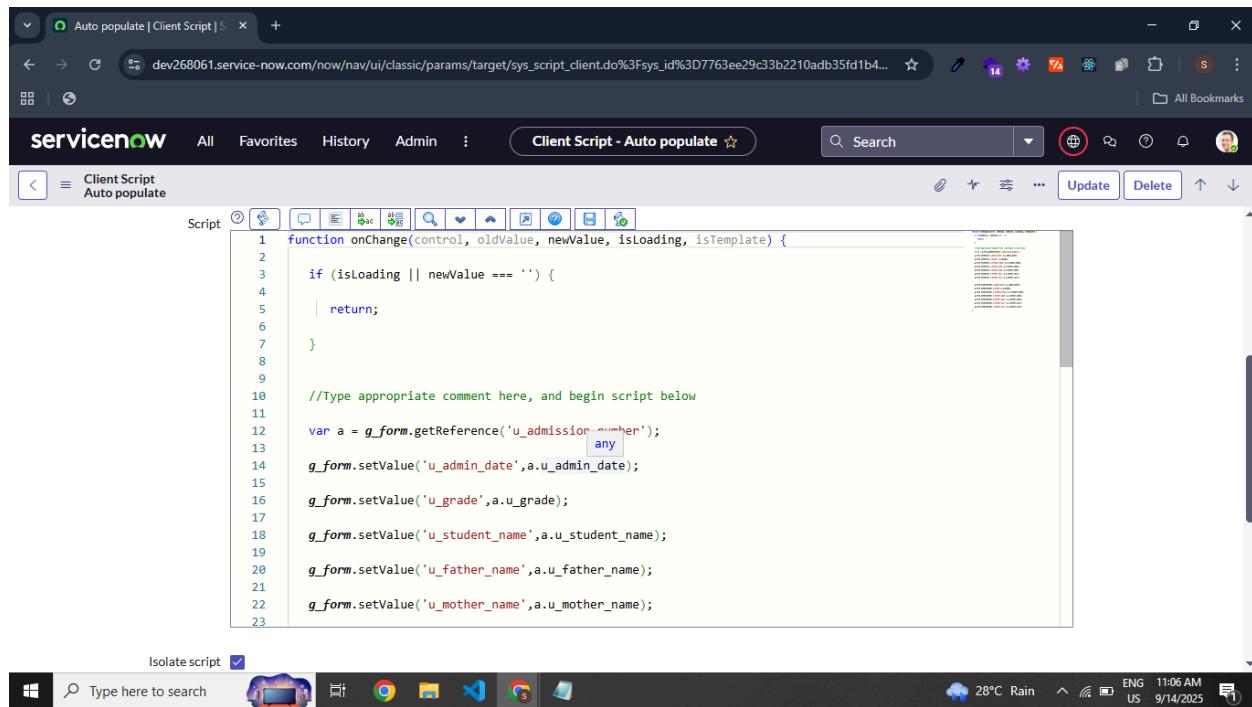


2. Fill the Details as given.



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

```
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);  
  
}
```



```

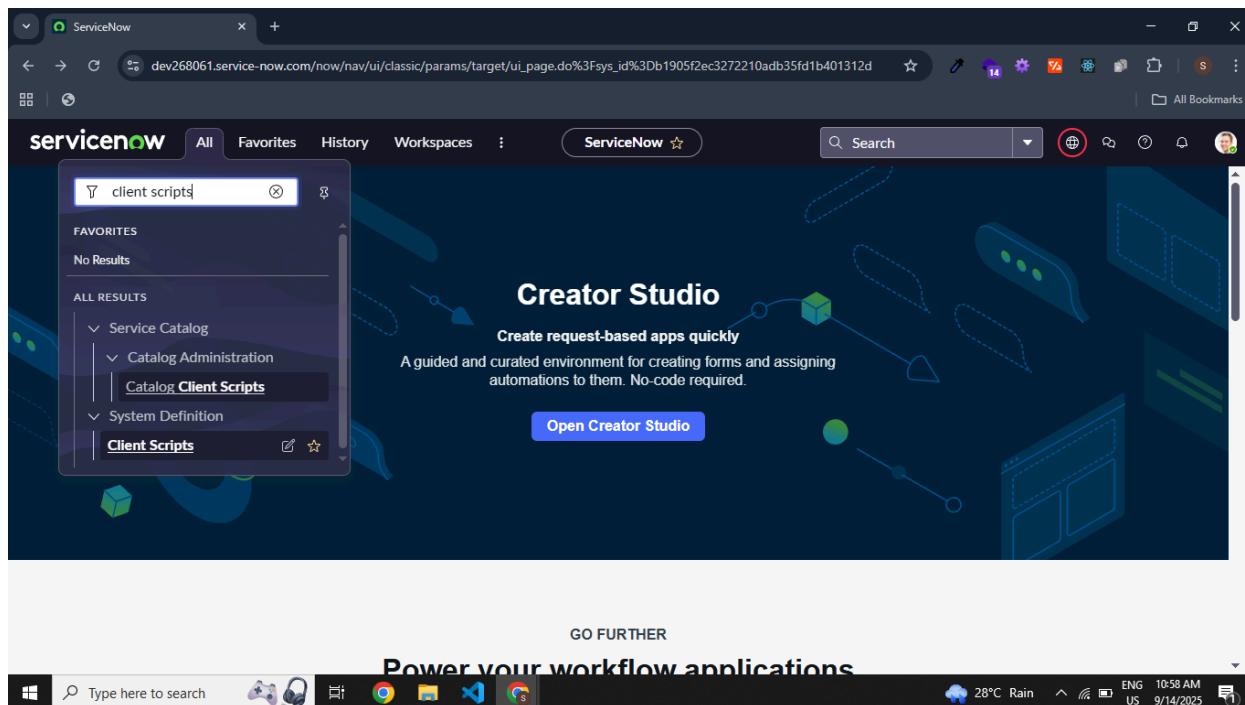
1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3     if (isLoading || newValue === '') {
4
5         return;
6
7     }
8
9
10 //Type appropriate comment here, and begin script below
11
12 var a = g_form.getReference('u_admission_number');
13     any
14 g_form.setValue('u_admin_date',a.u_admin_date);
15
16 g_form.setValue('u_grade',a.u_grade);
17
18 g_form.setValue('u_student_name',a.u_student_name);
19
20 g_form.setValue('u_father_name',a.u_father_name);
21
22 g_form.setValue('u_mother_name',a.u_mother_name);
23

```

Isolate script

## Activity 2: Creating “Pincode Update” Client Scripts for Admission Table.

1. All >> Client Scripts >> New.



client scripts

Creator Studio

Create request-based apps quickly  
A guided and curated environment for creating forms and assigning automations to them. No-code required.

Open Creator Studio

GO FURTHER

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2. Fill the Details as given.



The screenshot shows the ServiceNow Client Script - Pincode Update configuration page. The top navigation bar includes tabs for All, Favorites, History, Admin, and a search bar. Below the header, there's a breadcrumb trail showing 'Client Script' and 'Pincode Update'. On the right side, there are 'Update' and 'Delete' buttons. A note at the top states: "New client-scripts are run in strict mode, with direct DOM access disabled. Access to jQuery, prototype and the window object are likewise disabled. To disable this on a per-script basis, configure this form and add the 'Isolate script' field. To disable this feature for all new globally-scoped client-side scripts set the system property 'glide.script.block.client.globals' to false." The main configuration area has a red border and contains the following fields:

Name	Pincode Update	Application	Global
Table	Admission [u_admission]	Active	<input checked="" type="checkbox"/>
UI Type	Desktop	Inherited	<input type="checkbox"/>
Type	onChange	Global	<input checked="" type="checkbox"/>
Field name	Pincode		

Below these fields are sections for Description and Messages, each with a large text input field. At the bottom, there's a 'Script' section with a toolbar and a code editor containing the following JavaScript:

```
1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {  
2     if (isLoading || newValue === '') {  
3         // Script logic  
4     }  
5 }
```

3. 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');

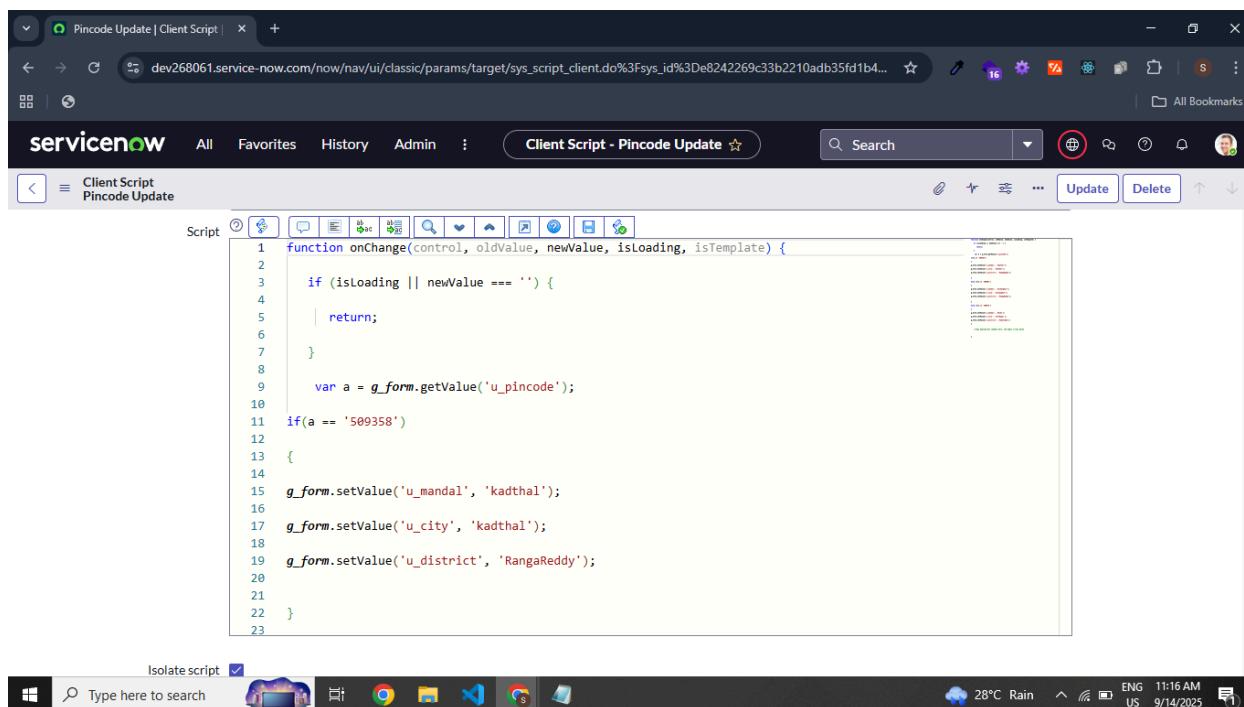
    g_form.setValue('u_city', 'AsifNagar');

    g_form.setValue('u_district', 'Hyderabad');

}

//Type appropriate comment here, and begin script below

}
```



The screenshot shows the ServiceNow Client Script editor with the following details:

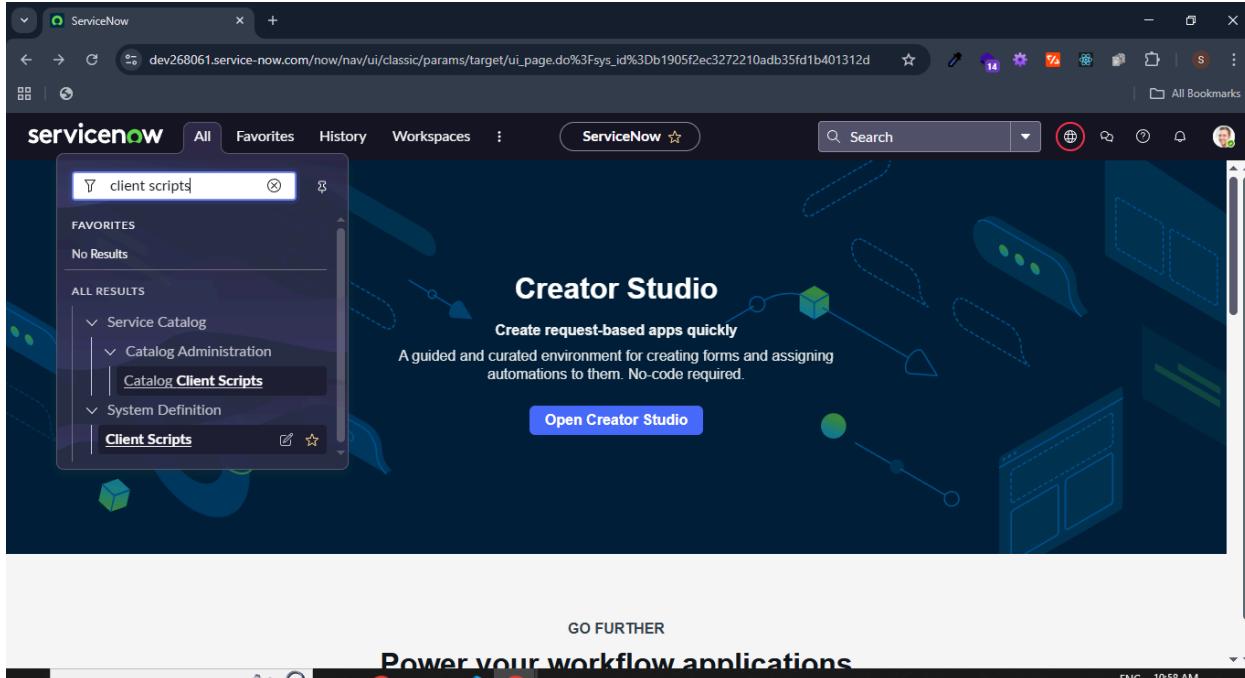
- Title Bar:** Picode Update | Client Script
- URL:** dev268061.service-now.com/now/nav/ui/classic/params/target/sys\_script\_client.do?sys\_id=3De8242269c33b2210adb35fd1b4...
- Script Type:** Client Script - Picode Update
- Script Content (onChange function):**

```

1  function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3      if (isLoading || newValue === '') {
4          return;
5      }
6
7      var a = g_form.getValue('u_pincode');
8
9      if(a == '509358')
10     {
11         g_form.setValue('u_mandal', 'kadthal');
12         g_form.setValue('u_city', 'kadthal');
13         g_form.setValue('u_district', 'RangaReddy');
14     }
15 }
```
- Toolbar:** Includes icons for Save, Undo, Redo, Find, Replace, Copy, Paste, and Delete.
- Buttons:** Update, Delete.
- Bottom Status Bar:** Isolate script, Type here to search, and system status indicators.

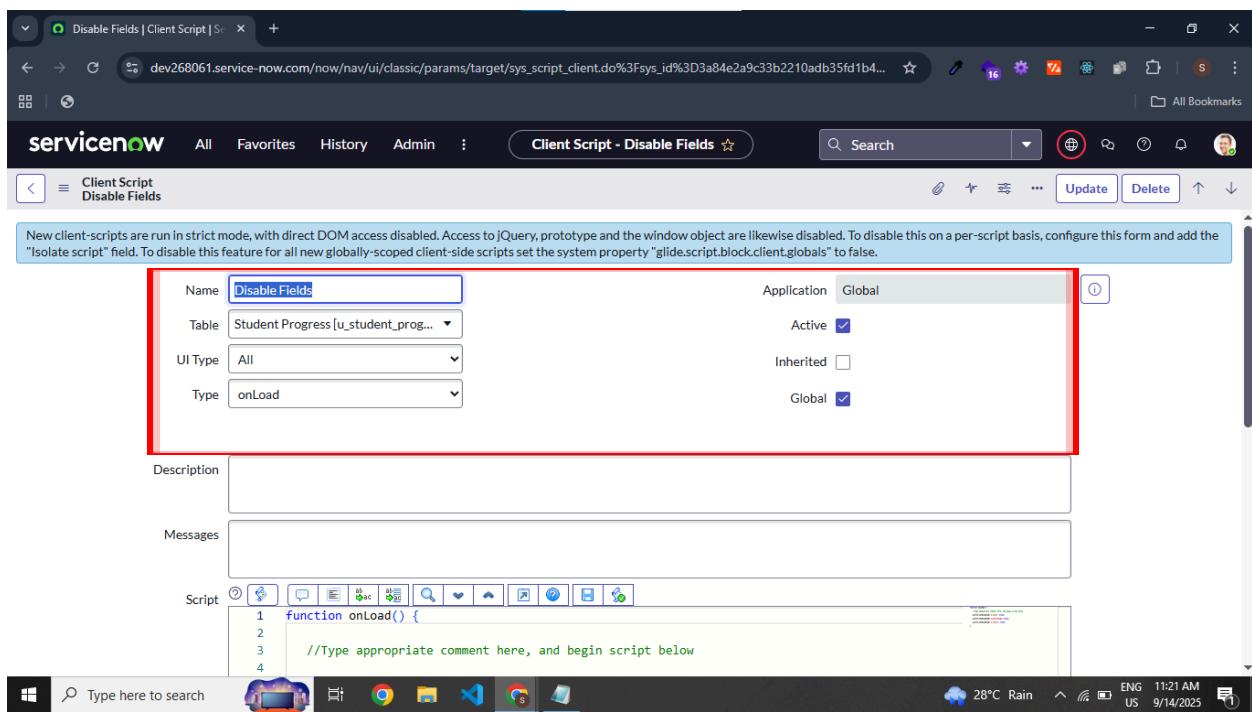
## Activity 3: Creating “Disable Fields” Client Scripts for Student progress Table

1. All >> Client Scripts >> New.



The screenshot shows the ServiceNow web interface with a dark theme. The top navigation bar includes 'ServiceNow' and a search bar. On the left, a sidebar displays 'client scripts' in the search field. The main content area shows a 'Creator Studio' section with the heading 'Create request-based apps quickly' and a 'Open Creator Studio' button. Below this, there's a 'GO FURTHER' section with the text 'Power your workflow applications.' and a Windows taskbar-like footer with various icons and system status.

2. Fill the Details as given.



The screenshot shows the 'Client Script - Disable Fields' creation page. The 'Name' field is set to 'Disable Fields', 'Table' is 'Student Progress [u\_student\_prog...', 'UI Type' is 'All', and 'Type' is 'onLoad'. In the right panel, the 'Application' is set to 'Global', 'Active' is checked, and 'Global' is checked. Below the form, there are sections for 'Description' and 'Messages', and a 'Script' editor containing the following code:

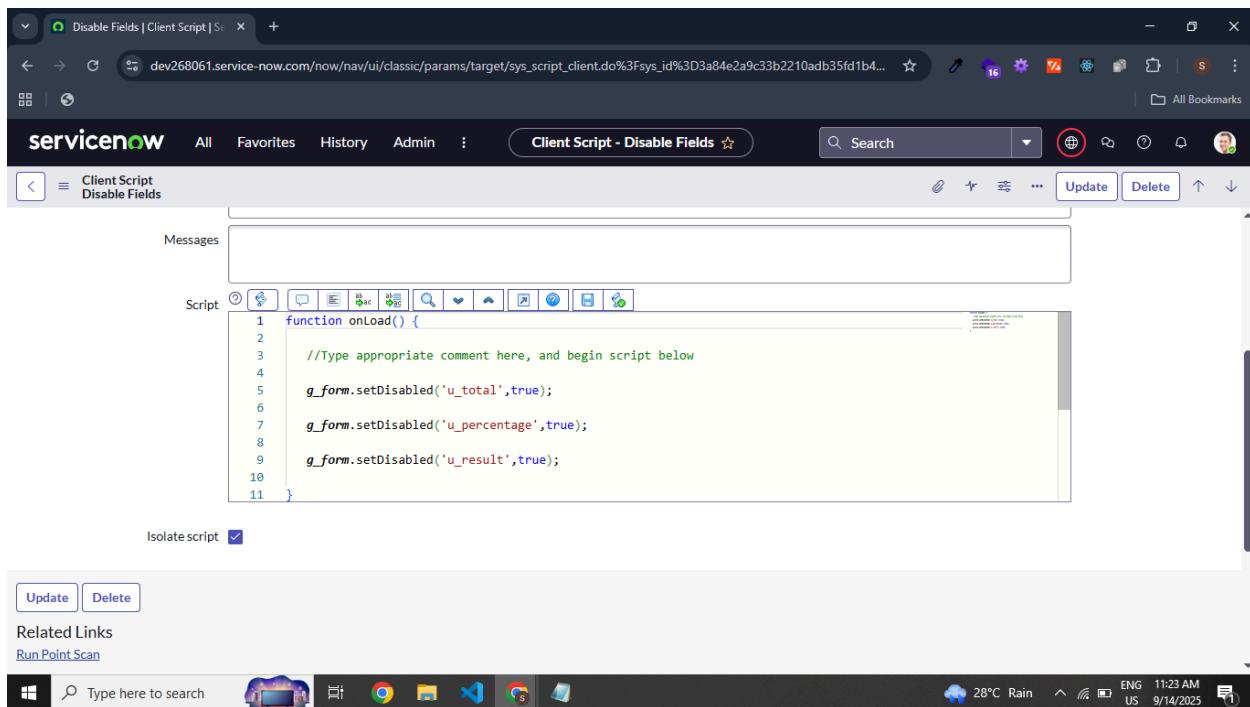
```

1 function onLoad() {
2
3     //Type appropriate comment here, and begin script below
4

```

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

```
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);
}
```

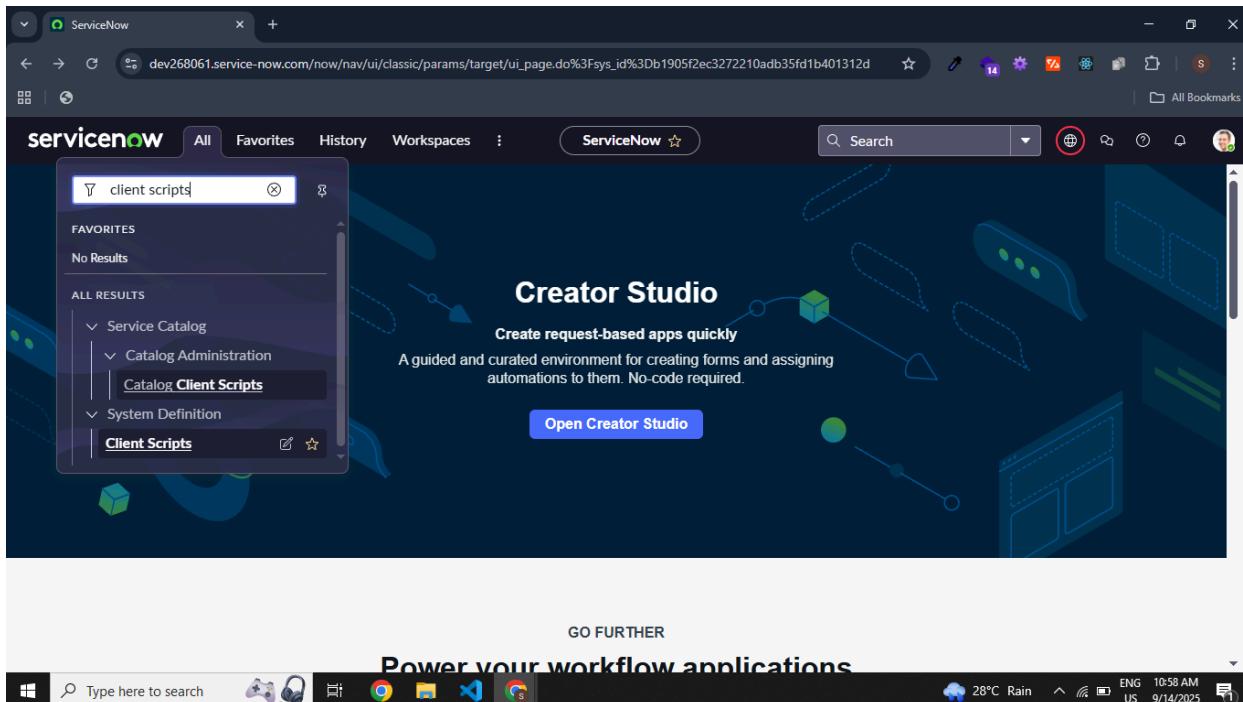


The screenshot shows the ServiceNow Client Script - Disable Fields page. The script editor contains the provided code. The 'Isolate script' checkbox is checked. The page includes standard ServiceNow navigation and search bars, and a taskbar at the bottom.

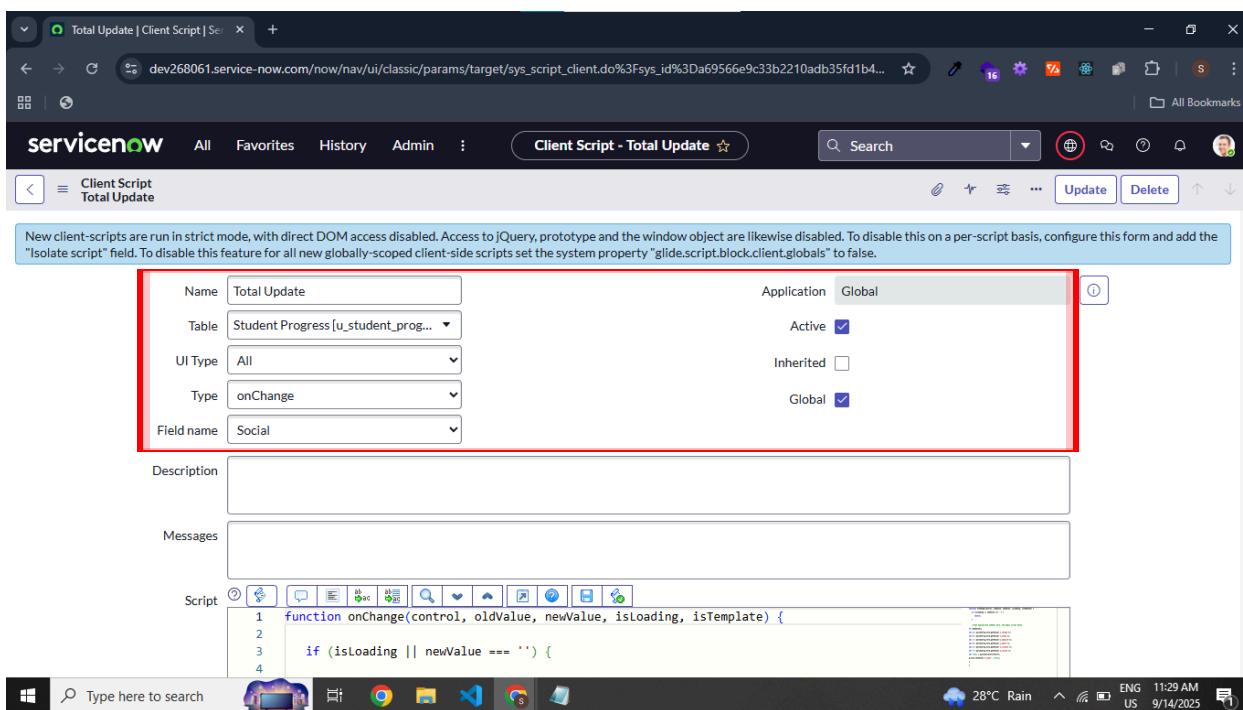
```
function onLoad() {
    //Type appropriate comment here, and begin script below
    g_form.setDisabled('u_total',true);
    g_form.setDisabled('u_percentage',true);
    g_form.setDisabled('u_result',true);
}
```

## Activity 4: Creating “Total Update” Client Scripts for Student progress Table

1. All >> Client Scripts >> New.



2. Fill the Details as given.



The screenshot shows the "Client Script - Total Update" configuration page. The form fields are as follows:

- Name: Total Update
- Table: Student Progress [u\_student\_prog...]
- UI Type: All
- Type: onChange
- Field name: Social
- Application: Global
- Active: checked
- Inherited: unchecked
- Global: checked

A red box highlights the "Name" field and the "Table" dropdown. Below the form, there are sections for "Description" (empty), "Messages" (empty), and a "Script" editor containing the following code:

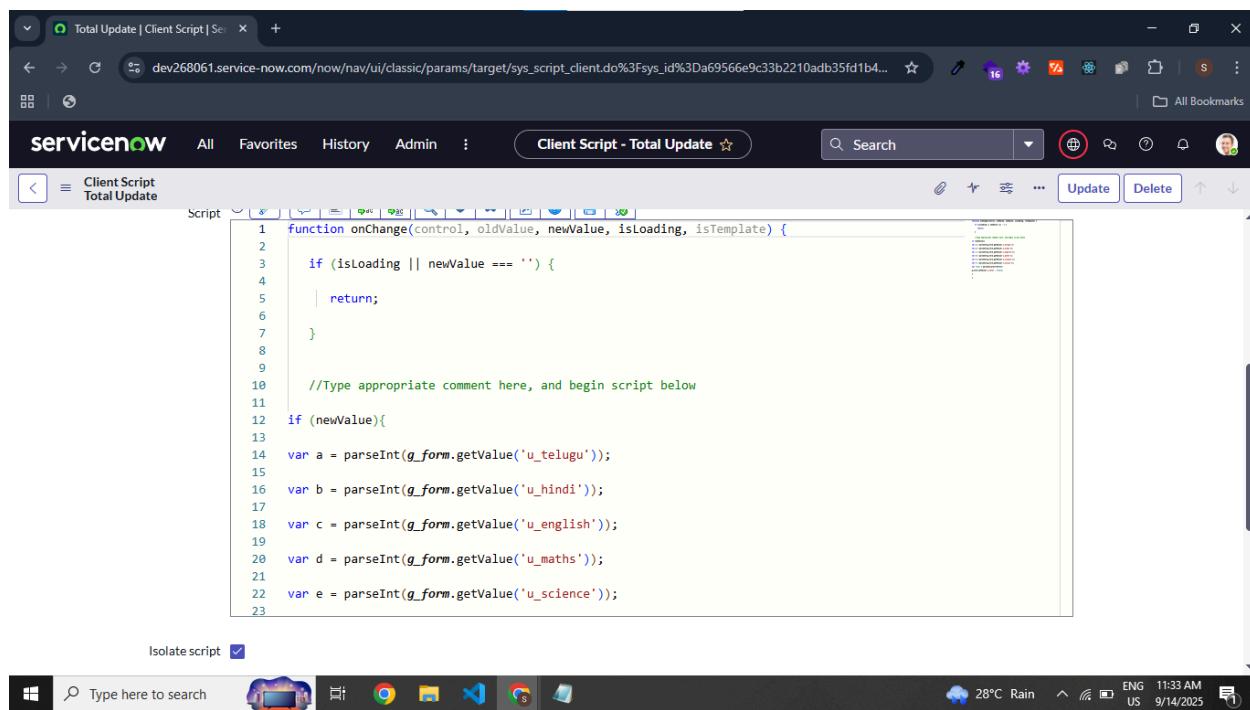
```

1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3     if (isLoading || newValue === '') {
4

```

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

```
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);  
    }  
}
```



The screenshot shows the ServiceNow Client Script editor. The title bar says "Client Script - Total Update". The script content is as follows:

```

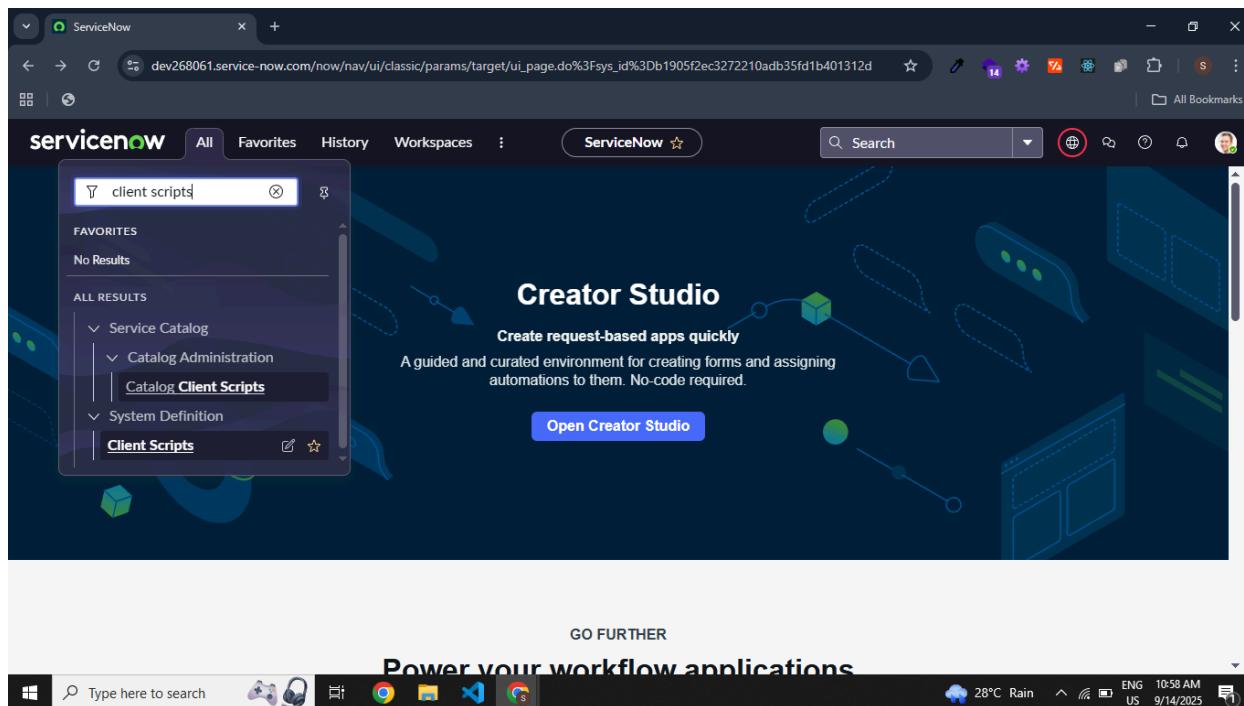
1  function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3    if (isLoading || newValue === '') {
4      return;
5    }
6
7
8
9
10   //Type appropriate comment here, and begin script below
11
12  if (newValue){
13
14    var a = parseInt(g_form.getValue('u_telugu'));
15
16    var b = parseInt(g_form.getValue('u_hindi'));
17
18    var c = parseInt(g_form.getValue('u_english'));
19
20    var d = parseInt(g_form.getValue('u_maths'));
21
22    var e = parseInt(g_form.getValue('u_science'));
23

```

At the bottom left, there is a checked checkbox labeled "Isolate script". The bottom right corner of the screen shows a Windows taskbar with the date and time.

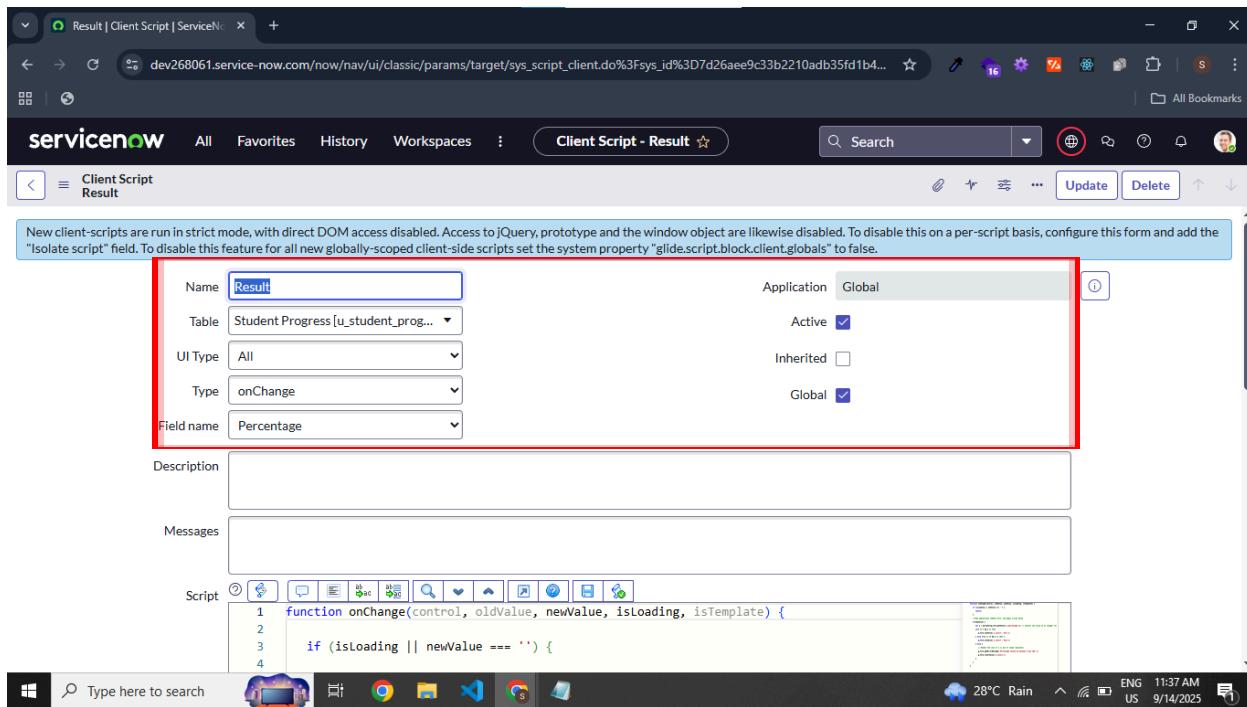
## Activity 5: Creating “Result” Client Scripts for Student progress Table

1. All >> Client Scripts >> New.



The screenshot shows the ServiceNow search interface. The search term "client scripts" is entered in the search bar. The search results pane on the left lists "Catalog Client Scripts" under "Catalog Administration" and "Client Scripts" under "System Definition". The main area features a "Creator Studio" advertisement with a button to "Open Creator Studio". At the bottom, there is a "GO FURTHER" section with a "Power your workflow applications" button. The bottom right corner shows a Windows taskbar with the date and time.

2. Fill the Details as given.



The screenshot shows the ServiceNow Client Script - Result page. A red box highlights the configuration section for the client script 'Result'. The configuration includes:

- Name: Result
- Table: Student Progress [u\_student\_prog...]
- UI Type: All
- Type: onChange
- Field name: Percentage
- Application: Global
- Active: checked
- Inherited: unchecked
- Global: checked

The 'Script' section contains the following code:

```

1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3     if (isLoading || newValue === '') {
4
5         return;
6
7     }
8
9     //Type appropriate comment here, and begin script below
10
11     if(newValue) {
12
13         var a = parseInt(g_form.getValue('u_percentage')); // Convert the value to an integer
14         for comparison
15
16         if(a >= 0 && a <= 59){
17
18             g_form.setValue('u_result','Fail');
19
20         } else if(a >= 60 && a <= 100) {
21
22             g_form.setValue('u_result','Pass');
23
24         }
25
26     }
27
28 }

```

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

```

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 {

// Handle the case if a is out of range (optional)

g_form.addErrorMessage('Percentage should be between 0 and 100.');

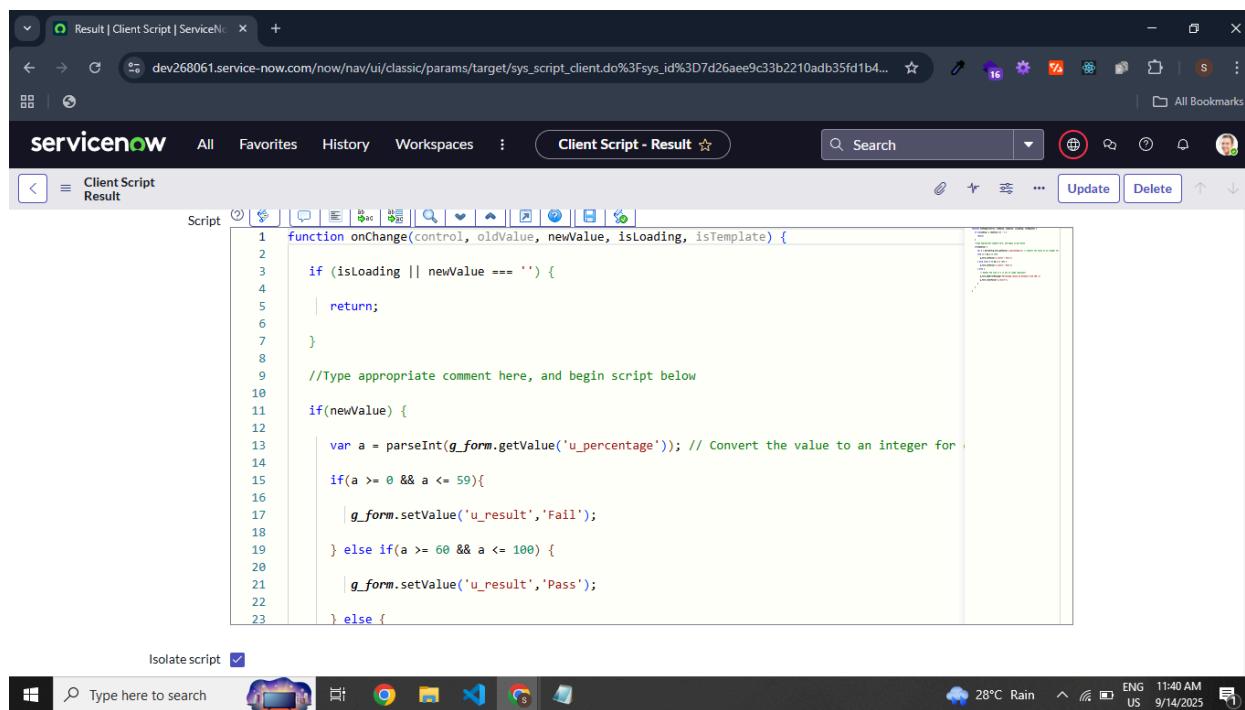
g_form.clearValue('u_result');

}

}

}

```



The screenshot shows the ServiceNow Client Script Result page. The title bar says "Result | Client Script | ServiceNow". The main content area displays a client script named "Client Script - Result". The script is titled "Client Script" and has a "Result" icon. It contains the following code:

```

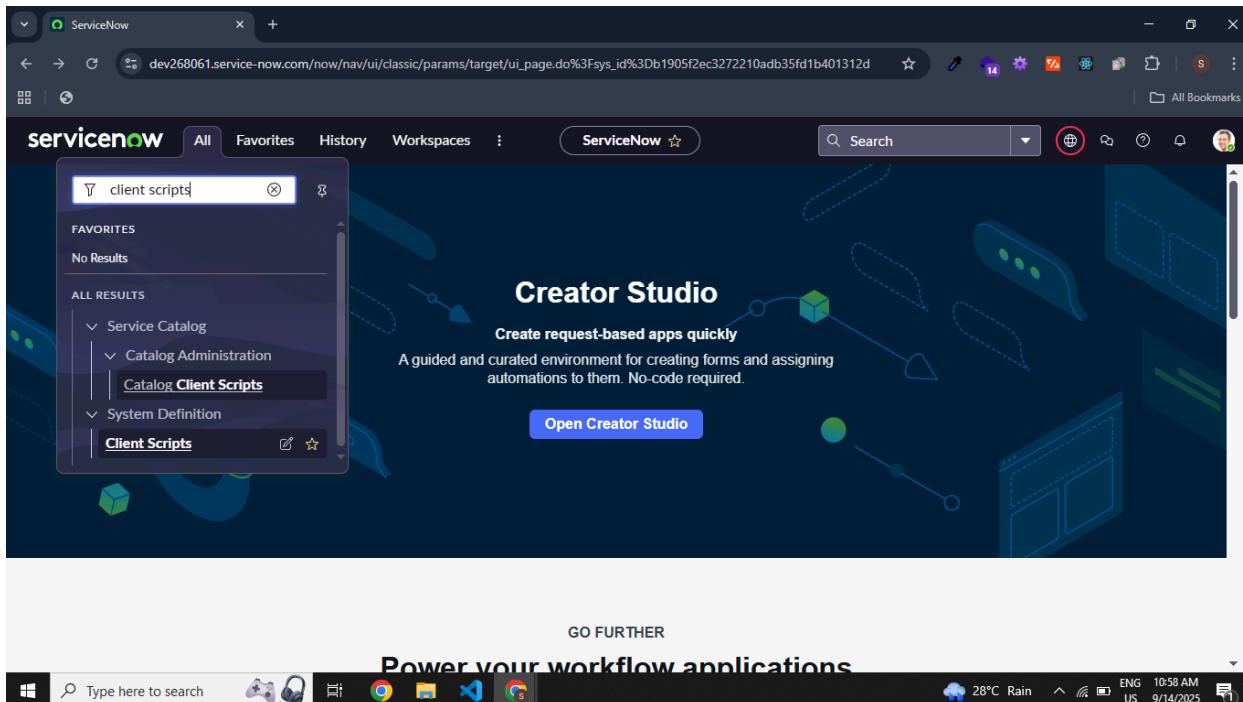
1  function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3      if (isLoading || newValue === '') {
4
5          return;
6
7      }
8
9      //Type appropriate comment here, and begin script below
10
11     if(newValue) {
12
13         var a = parseInt(g_form.getValue('u_percentage'));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

```

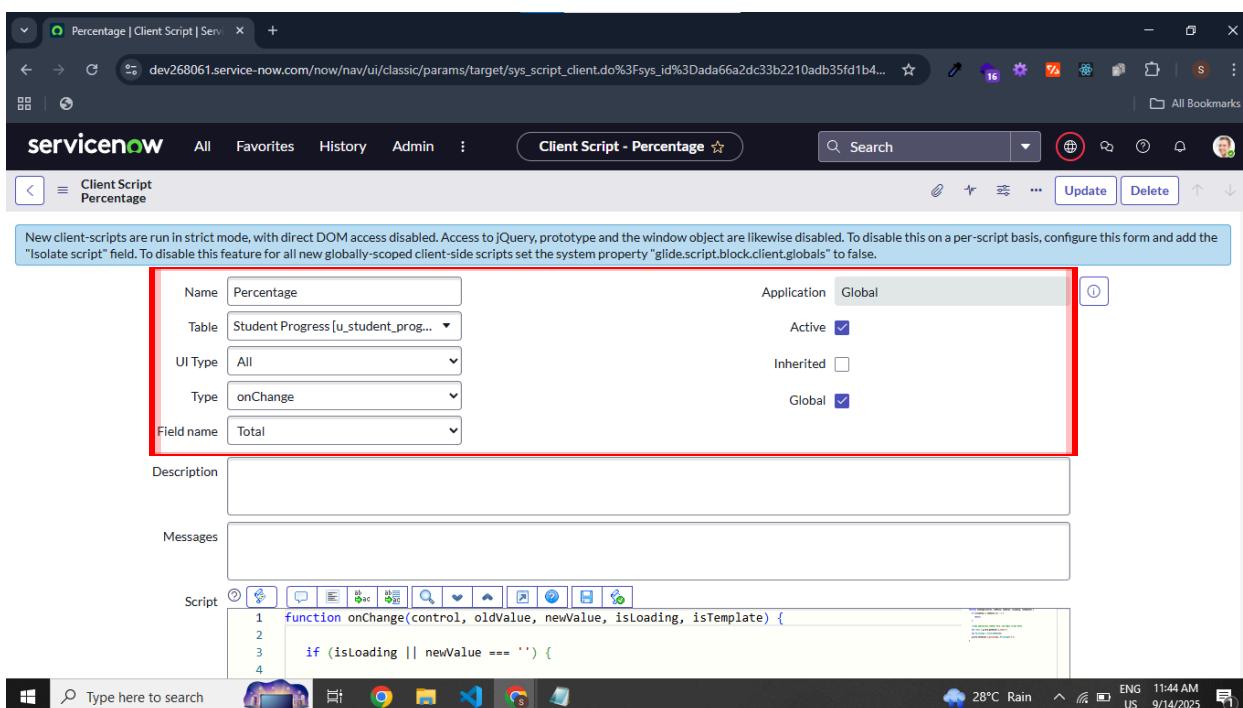
The "Isolate script" checkbox is checked at the bottom left. The status bar at the bottom right shows "28°C Rain", "ENG US", "11:40 AM", and the date "9/14/2025".

## Activity 6: Creating “Percentage” Client Scripts for Student progress Table

1. All >> Client Scripts >> New.



2. Fill the Details as given.



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

```

function onChange(control, oldValue, newValue, isLoading, isTemplate) {

    if (isLoading || newValue === '') {

        return;
    }

    //Type appropriate comment here, and begin script below

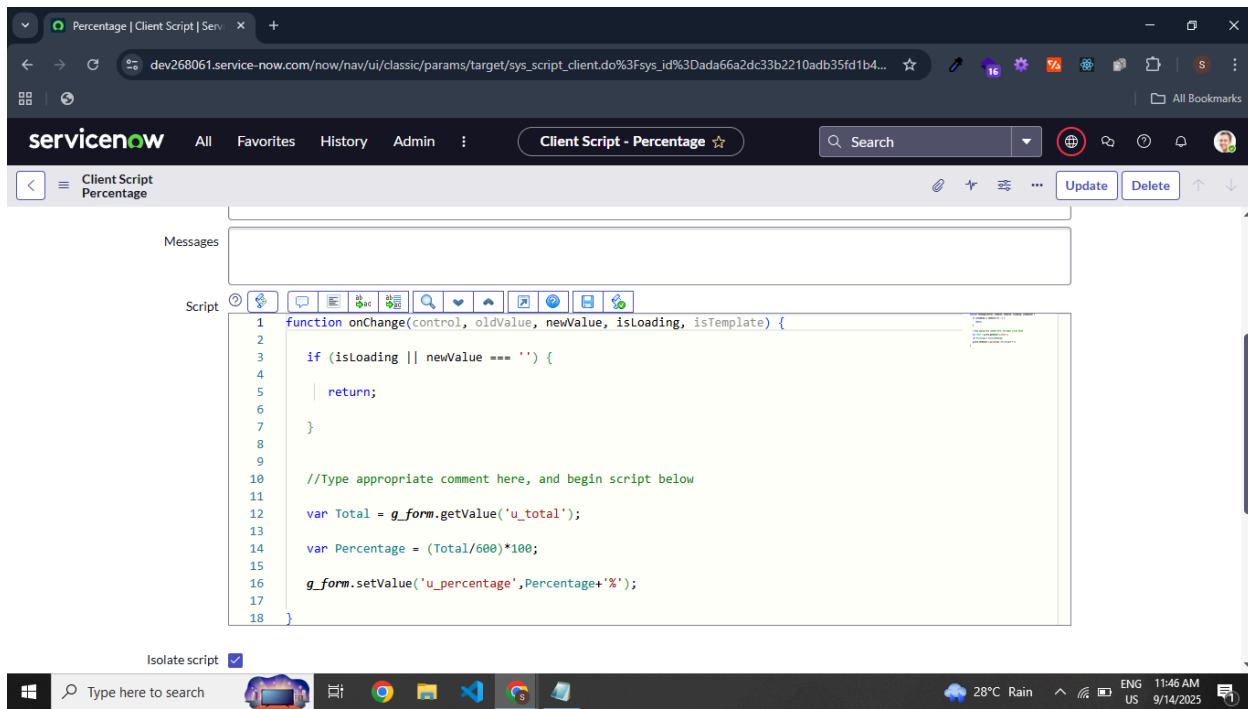
    var Total = g_form.getValue('u_total');

    var Percentage = (Total/600)*100;

    g_form.setValue('u_percentage',Percentage+'%');

}

```



The screenshot shows the ServiceNow Client Script editor interface. The title bar reads "Percentage | Client Script | Servicenow". The URL in the address bar is "dev268061.service-now.com/nav/ui/classic/params/target/sys\_script\_client.do?sys\_id=3Dada66a2dc33b2210adb35fd1b4...". The main area is titled "Client Script - Percentage". Below it, there is a "Messages" section which is currently empty. The "Script" section contains the provided JavaScript code. At the bottom left of the script editor, there is a checkbox labeled "Isolate script" which is checked. The status bar at the bottom right shows "28°C Rain", "ENG US", "11:46 AM", and the date "9/14/2025".

```

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+'%');
}

```

## Conclusion:

The Educational Management System developed on the ServiceNow platform successfully demonstrates how educational institutions can overcome challenges related to manual processes, data silos, and inefficiencies. By automating workflows such as admissions, attendance, grading, and student progress monitoring, the system enhances operational efficiency while ensuring accuracy and transparency. The integration of real-time dashboards and client scripts provides administrators, teachers, and students with improved collaboration and decision-making capabilities.

This project highlights the scalability and adaptability of ServiceNow in addressing complex institutional requirements, proving its value as a centralized platform for education management. With further integration of predictive analytics and external systems, the solution can evolve into a comprehensive tool that not only streamlines administration but also contributes to academic excellence and student success.