

Educational Organisation Using Servicenow

Objective: To develop a ServiceNow solution that streamlines student services, automates administrative workflows, and provides dashboards for academic and operational insights.

Skills: ServiceNow app development, Flow Designer, reporting & dashboards, JavaScript, database design, and workflow automation.

TASK INITIATION

Milestone 1 :Users

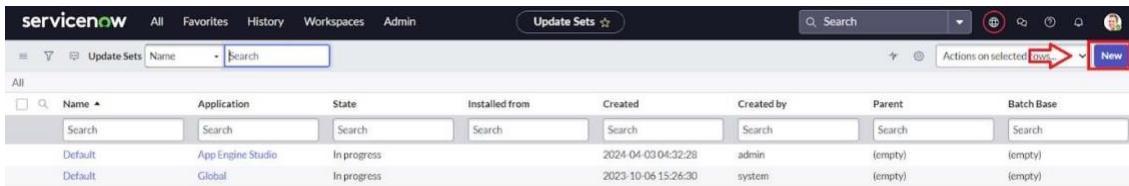
Activity 1: Create Users

Creating a Update Set

1. Click on All >> Local update sets .



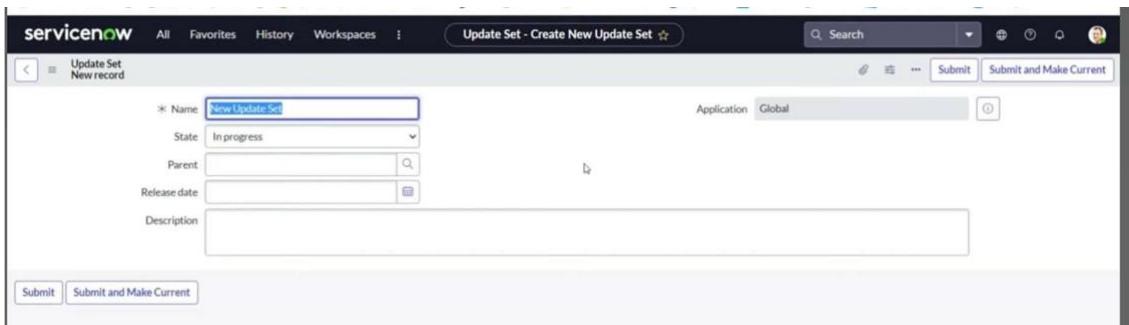
2. Click on new



The screenshot shows the 'Update Sets' list view in ServiceNow. The top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', 'Admin', and a search bar. On the right, there are buttons for 'Actions on selected rows' and 'New'. The main area displays a table with columns: Name, Application, State, Installed from, Created, Created by, Parent, and Batch Base. Two rows are listed: 'Default' (Application: App Engine Studio, State: In progress) and 'Default' (Application: Global, State: In progress). A red arrow points to the 'New' button.

Name	Application	State	Installed from	Created	Created by	Parent	Batch Base
Search	Search	Search	Search	Search	Search	Search	Search
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. Enter the Details Name: Educational Organisation >> Click on Submit and make Current.



The screenshot shows the 'Update Set - Create New Update Set' form. The top navigation bar includes 'All', 'Favorites', 'History', 'Workspaces', and a search bar. The main form has fields for 'Name' (set to 'New Update Set'), 'State' (set to 'In progress'), 'Parent' (empty), 'Release date' (empty), and 'Description' (empty). At the bottom, there are two buttons: 'Submit' and 'Submit and Make Current'. A red arrow points to the 'Submit and Make Current' button.

Creating Salesforce Table.

- All >> Tables.

The screenshot shows the ServiceNow interface with the 'Tables' module selected. The left sidebar has a tree view with 'Tables' expanded. The main area is titled 'Import Tables' with search and filter fields. A message says 'No records to display'.

- Click on new

The screenshot shows the 'Tables' list view. The top right has a 'New' button highlighted with a red box. The table lists various table names like 'Adaptive Authentication Event' and 'Agent Assist Recommendation' along with their details.

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

The screenshot shows the 'Table - New Record' form. It has fields for 'Label' (highlighted with a red box), 'Name', and 'Extends table'. On the right, there are options for 'Application' (set to 'Global'), 'Create module' (checkbox checked), 'Create mobile module' (checkbox checked), 'Add module to menu' (dropdown set to 'Create new'), and 'New menu name'.

- 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 .

servicenow All Favorites History Workspaces Admin Table - New Record ⭐

[New record](#)

① This form has annotations - click ⓘ to toggle them - [click here](#) to never show this again)

* Label	<input type="text"/>
* Name	<input type="text"/>
Extends table	<input type="text"/> <input type="button" value="Search"/>

Creates

Ad

Columns * Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length
<input type="text"/>	<input type="button"/>		

Submit Cancel X

Table Salesforce

This record is in the Global application, but Educational Organisation is the current application. To edit this record click here.

Admin Date	Date	(empty)	40	false
Admin Number	String	(empty)	40	javascript:getNextObjNumberPadded();
Father Cell	String	(empty)	40	true
Father Name	String	(empty)	40	false
Grade	Choice	(empty)	40	false
Mother Cell	String	(empty)	40	false
Mother Name	String	(empty)	40	false
Student Name	String	(empty)	40	false

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

Table Salesforce

Save Analyze Access Show File Properties Move to Application... Show Latest Update Create Child Table Show Dictionary Record

Configure Export View Create Favorite Copy URL Copy sys_id Show XML History Reload form

Display

Class	System Class Name	(empty)	80	jav	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

- Click on controls >> Enable Extensible.



- 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 .



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

Dictionary Entry - Grade						
Choices (13)						
Actions on selected rows... New						
Choices	Label	Value	Language	Sequence	Inactive	Updated
Prept	Prept	en		1	false	2024-04-02 02:10:36
Nursery	Nursery	en		2	false	2024-04-02 02:10:40
UKG	UKG	en		3	false	2024-04-02 02:10:43
I	1st	en		4	false	2024-04-02 02:12:50
II	2nd	en		5	false	2024-04-02 02:13:16
III	3rd	en		6	false	2024-04-02 02:13:23
IV	4th	en		7	false	2024-04-02 02:13:30
V	5th	en		8	false	2024-04-02 02:13:53
VI	6th	en		9	false	2024-04-02 02:14:57
VII	7th	en		10	false	2024-04-02 02:15:02
VIII	8th	en		11	false	2024-04-02 02:15:06
IX	9th	en		12	false	2024-04-02 02:15:12
X	10th	en		13	false	2024-04-02 02:15:15

Creating Admission Table

- Create an Admission Table with Columns given.
- Select Extends Table >> Salesforce and also Select Add module to menu >> Salesforce.
- Create Fields as shown

Table - New Record

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

This form has annotations - click [\(i\)](#) to toggle them - ([click here](#) to never show this again).

Table Columns

Column label	Type	Reference	Max length	Default value	Display

Dictionary Entries

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

- Create choice for Admin Status as:

Dictionary Entry

Admin Status

Create Choice List Delete Column Update

Related Links

Show Table Run Point Scan Advanced List

Access Controls Choices (7) Attributes Labels (1) Dictionary Overrides

Label	Value	Language	Sequence	Inactive	Updated
New	New	en	1	false	2024-04-02 21:10:25
Join in progress	In progress	en	2	false	2024-04-02 21:11:03
Joined	Joined	en	3	false	2024-04-02 21:11:26
Rejected	Rejected	en	4	false	2024-04-02 21:12:00
Closed	Closed	en	5	false	2024-04-02 21:13:05
Rejoined	Rejoined	en	6	false	2024-04-02 21:13:08
Cancelled	Cancelled	en	7	false	2024-04-02 21:13:27

- Create choice for Pincode as:

Choices						
	Label	Value	Language	Sequence	Inactive	Updated
<input type="checkbox"/>	509350	509350	en	1	false	2024-04-02 21:15:19
	500079	500079	en	2	false	2024-04-02 21:15:46
	500081	500081	en	3	false	2024-04-02 21:16:05
+	Insert a new row...					

- Create choice for Purpose of Join as:

Choices						
	Label	Value	Language	Sequence	Inactive	Updated
	Tuition	Tuition	en	1	false	2024-04-02 21:17:09
	Coaching	Coaching	en	2	false	2024-04-02 21:17:31
	Teacher	Teacher	en	3	false	2024-04-02 21:17:53
+	Insert a new row...					

- Create choice for School as:

Choices						
	Label	Value	Language	Sequence	Inactive	Updated
	Stanley	Stanley	en	1	false	2024-04-02 21:19:14
	Nareesh It	Nareesh It	en	2	false	2024-04-02 21:19:35
+	Insert a new row...					

- Create choice for School Area as:

Choices						
	Label	Value	Language	Sequence	Inactive	Updated
	Near Market	Near Market	en	1	false	2024-04-02 21:20:53
	Near Bus Stand	Near Bus Stand	en	2	false	2024-04-02 21:21:24
+	Insert a new row...					

Creating Student Progress Table

- Create a Student Progress Table with Columns given.
- Select Add module to menu >> Salesforce.
- Create Fields as shown:

<input checked="" type="checkbox"/>	Admission Number	Reference	Salesforce	32	false	
<input checked="" type="checkbox"/>	English	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Hindi	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Maths	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Percentage	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Result	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Science	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Social	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Telugu	String	(empty)	40	false	
<input checked="" type="checkbox"/>	Total	String	(empty)	40	false	
+	Insert a new row...					

Configuring Table form for Student Progress Table

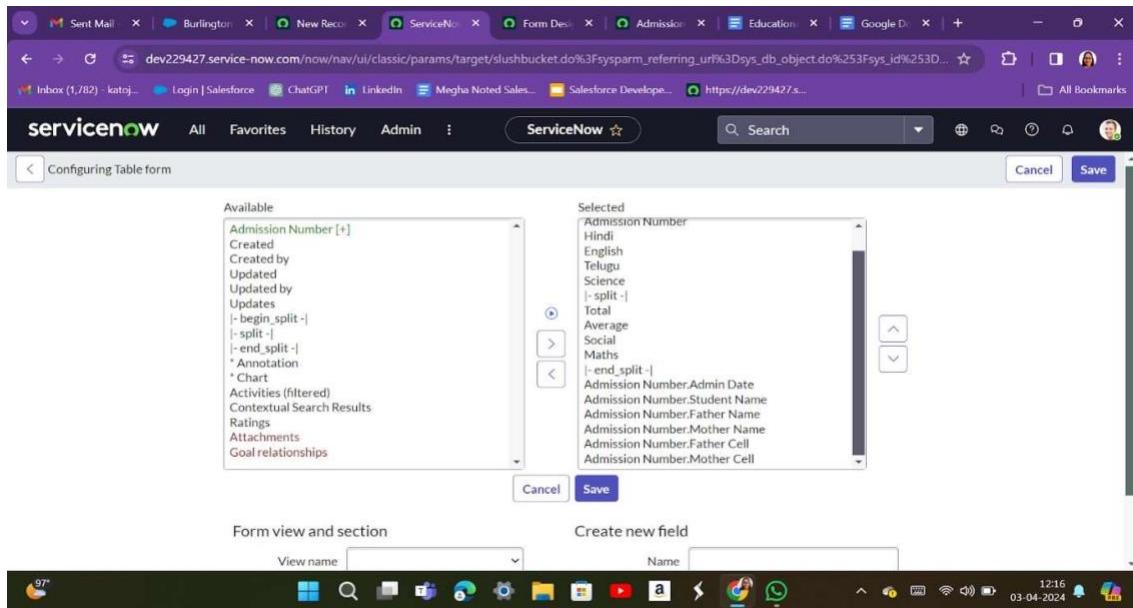
- In the Student Progress Table Page , Click on Layout form .

The screenshot shows the 'Layout Form' configuration for a 'student progress' table. The table has two columns: 'Telugu' and 'Total'. Below the table are 'Update', 'Delete', and 'Delete All Records' buttons. A 'Related Links' sidebar on the right includes options like 'Design Form', 'Layout Form' (which is selected and highlighted), 'Layout List', 'Show Form', 'Show List', 'Show Schema Map', 'Add to Service Catalog', 'Run Point Scan', and 'Explore REST API'.

- Click on Admission Number [+] .

The screenshot shows the 'Field Selection' dialog box in ServiceNow. It has two main sections: 'Available' and 'Selected'. In the 'Available' section, 'Admission Number [+]' is selected. In the 'Selected' section, there are several fields listed: '|-begin_split -|', 'Admission Number', 'Hindi', 'English', 'Telugu', 'Science', '|-split -|', 'Total', 'Average', 'Social', 'Maths', and '|-end_split -|'. At the bottom of the dialog are 'Cancel' and 'Save' buttons. Below the dialog, the 'Form view and section' and 'Create new field' tabs are visible, along with a toolbar and system status icons at the bottom.

- Select below Admission Number fields in Available side and send it to selected side as below >> save.



Creating Form Design for Salesforce Table

1. All >> System Definition >> Tables .
2. In Label Search for Salesforce and open .

Tables				
	Name	Extends table	Extensible	Updated
All > Update name is not empty				
<input type="checkbox"/>	Label	<input type="text" value="Search"/>	<input type="text" value="Search"/>	<input type="text" value="Search"/>
<input type="checkbox"/>	salesforce	<input type="text" value="adaptive_auth_event"/>	<input type="text" value="false"/>	2024-03-29 07:44:59
<input type="checkbox"/>	Adaptive Authentication Event	<input type="text" value="agent_assist_recommendation"/>	<input type="text" value="false"/>	2023-10-06 15:44:09
<input type="checkbox"/>	Agent Assist Recommendation			

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

4. In drop down select Salesforce(u_salesforce).

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

6. Save.

Creating Form Design for Admission Table

Follow the same steps as Activity1, Configure the fields as below and Save.

The screenshot shows the 'Form Design' interface for the 'Admission [x_admission]' table. The left sidebar contains a tree view of fields under 'Fields' and 'Formatters'. The main area displays a grid of fields grouped into sections:

- Administrator [x_admission]**: Contains fields for Admin Number, Purpose of Join, Student Name, Father Name, Mother Name, and Admin Data.
- Comments**: Contains a field for Comments.
- School Details**: Contains a field for School Area.
- Address**: Contains fields for Postcode, Street, City, and District.

Each field has a configuration icon (gear) and a preview icon (eye).

Creating Form Design for Student progress Table

Follow the same steps as Activity1, Configure the fields as below and Save.

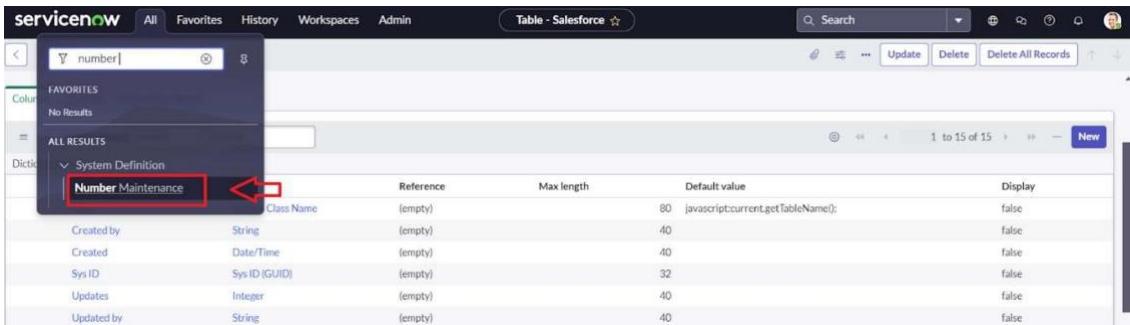
The screenshot shows the 'Form Design' interface for the 'Student Progress [x_student]' table. The left sidebar contains a tree view of fields under 'Fields' and 'Formatters'. The main area displays a grid of fields grouped into sections:

- New Section**: Contains fields for Admission Number, Grade, and Student Name.
- Admission Number**: Contains fields for Father Name, Mother Name, Father Cell, and Mother Cell.
- Student Progress**: Contains fields for Telugu, Hindi, English, Maths, and Science, each with a 'Total', 'Percentage', and 'Result' column.

Each field has a configuration icon (gear) and a preview icon (eye).

Creating Number Maintenance for Admin Number

- All >> Number Maintenance >> New



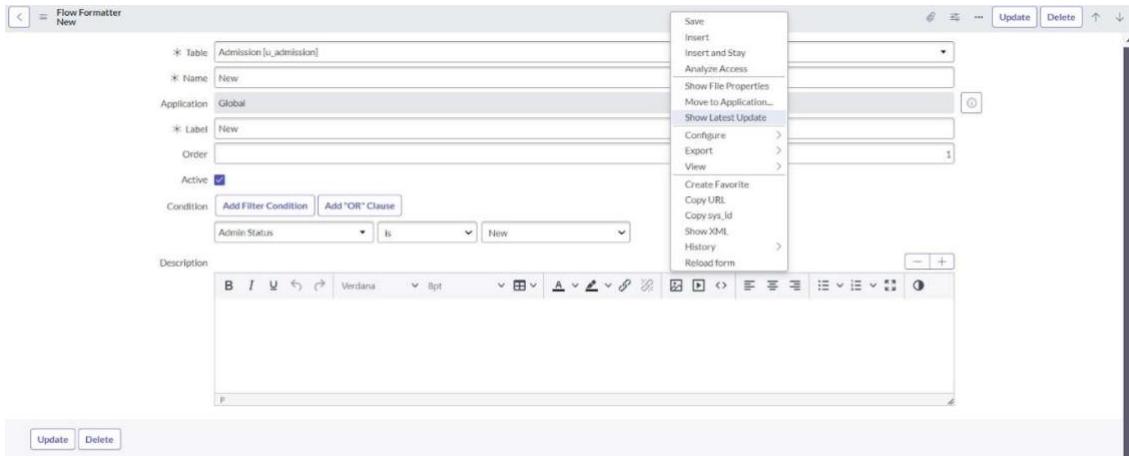
- Fill the details >> Submit.

The screenshot shows the 'Number - SAL' configuration page. It includes fields for Table (Salesforce), Prefix (SAL.), Number (1,000), Application (Global), and Number of digits (7). Below the form is a grid titled '# Daily Expenses [u_daily_expenses]' with columns for Number, Date, Family Member Name, and Expense. Another grid below it has a single column for Comments.

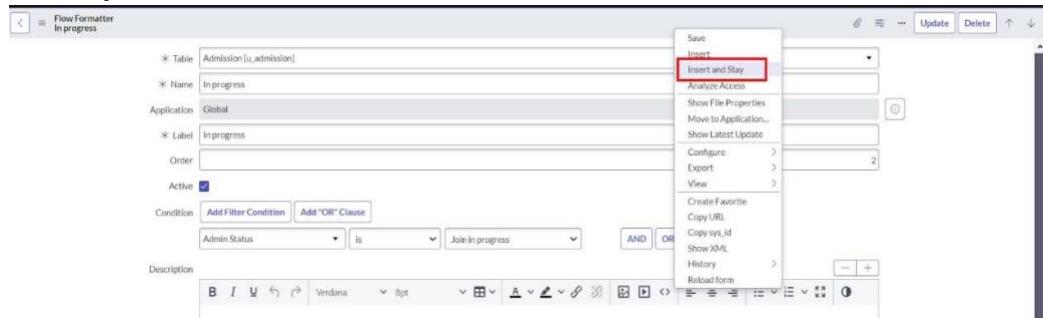
Creating Process Flow for Admission Table □

All >> Process Flow>> New.

- Fill the Details as given Below



- Right Click on toggle and click on the save .
- Replace the Name and Label as below and click on Insert on stay.



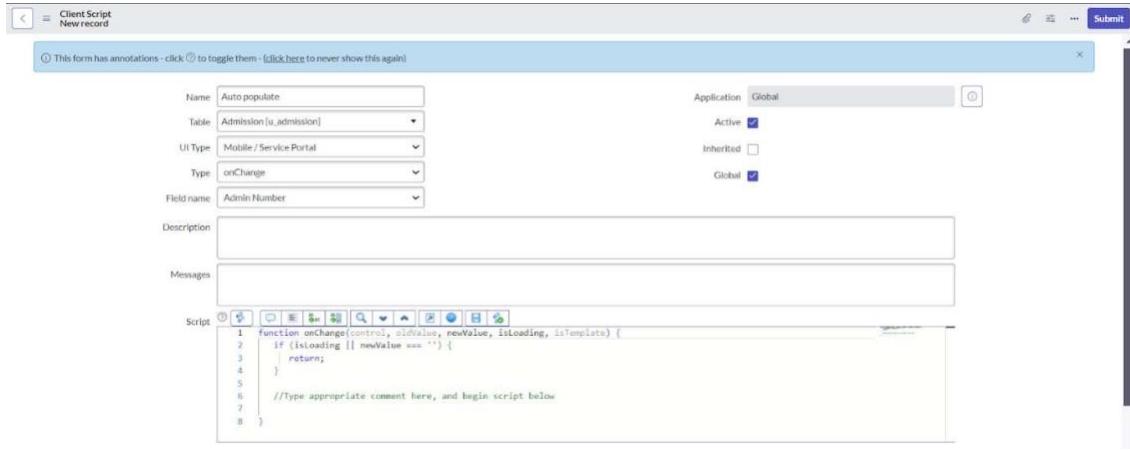
- Replace the Name and Label in order and click on Insert on stay.

Joined >> Rejected >> Rejoined >> Closed >> Cancelled.

- Order should be New >> InProgress >> Joined >> Rejected >> Rejoined >> Closed >> Cancelled.

Creating “Auto populate” Client Scripts for Admission Table

1. All >> Client Scripts >> New.
2. Fill the Details as given.



- 3.
4. Write the Code as below, Enable Isolate script and Save.
5.

```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
    if (isLoading || newValue === '') {
        return;
    }
    //Type appropriate comment here, and begin script below
}
```
6.

```
if (isLoading || newValue === "") {
```
7.

```
return;
```
8.

```
}
```
9.

```
//Type appropriate comment here, and begin script below
```
10.

```
var a =
```
11.

```
g_form.getReference('u_admission_number');
```
12.

```
g_form.setValue('u_admin_date',a.u_admin_date);
```
13.

```
g_form.setValue('u_grade',a.u_grade);
```
14.

```
g_form.setValue('u_student_name',a.u_student_na
me);
```
15.

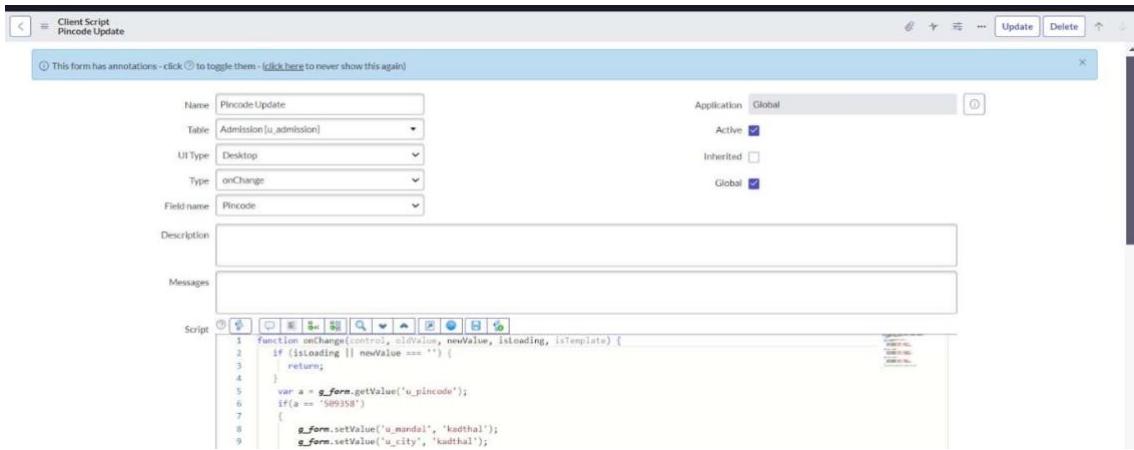
```
g_form.setValue('u_father_name',a.u_father_name
);
```
16.

```
g_form.setValue('u_mother_name',a.u_mother_na
me);
```

```
16.    g_form.setValue('u_father_cell',a.u_father_cell);
17.    g_form.setValue('u_mother_cell',a.u_mother_cell)
     ;
18.    g_form.setDisabled('u_admin_date',a.u_admin_da
te);
19.    g_form.setDisabled('u_grade',a.u_grade);
20.    g_form.setDisabled('u_student_name',a.u_studen
t_name);
21.    g_form.setDisabled('u_father_name',a.u_father_n
ame);
22.    g_form.setDisabled('u_mother_name',a.u_mother_
name);
23.    g_form.setDisabled('u_father_cell',a.u_father_cell
 );
24.    g_form.setDisabled('u_mother_cell',a.u_mother_c
ell);
25.    }
26. Note: Make sure the Field names should be the
     same as you created .
```

Creating “Pincode Update” Client Scripts for Admission Table

- Fill the Details as given.



- 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');

}

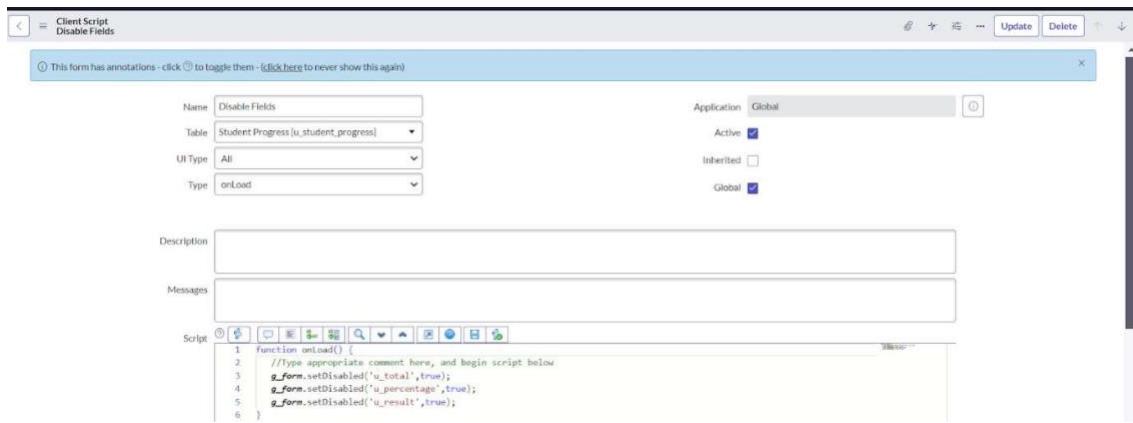
else if(a == '500079')
{
    g_form.setValue('u_mandal',      'Abids');
    g_form.setValue('u_city',        'AsifNagar');
    g_form.setValue('u_district',
'Hyderabad');
}
```

//Type appropriate comment here, and begin script below

```
}
```

Creating “Disable Fields” Client Scripts for Student progress
Table

- Fill the Details as given.

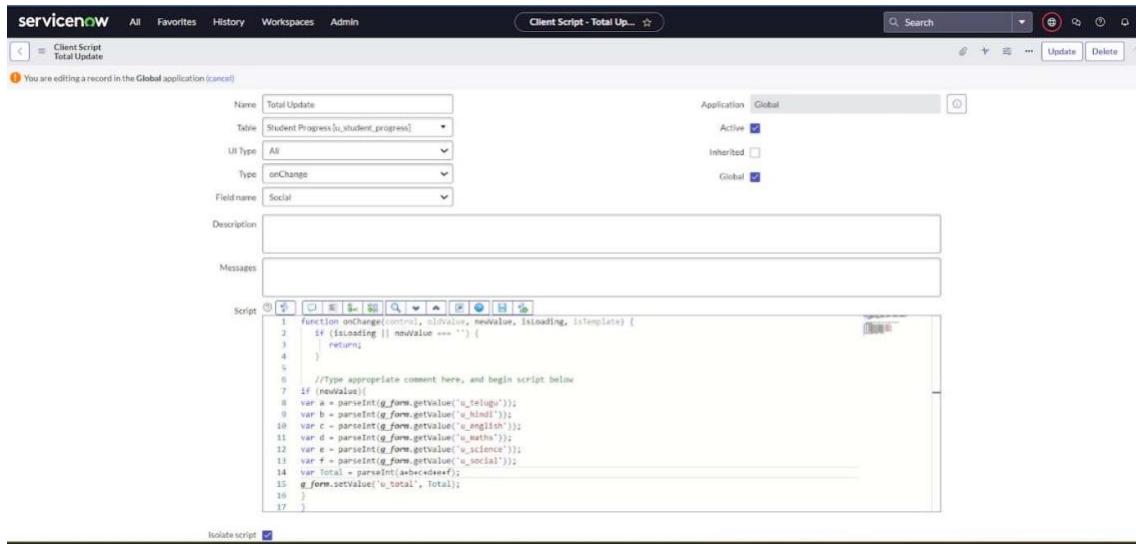


- Write the Code as below, Enable Isolate script and Save.

```
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);
}
```

Creating “Total Update” Client Scripts for Student progress Table

- Fill the Details as given.



- 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'));

```

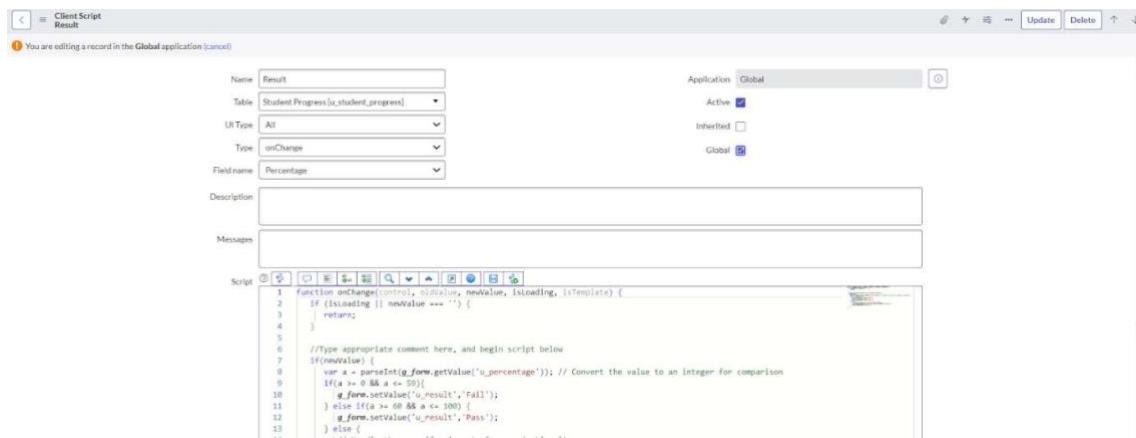
```

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);
}
}

```

Creating “Result” Client Scripts for Student progress Table

- Fill the Details as given.



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

```

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

```

```

if (isLoading || newValue === "") {
    return;
}

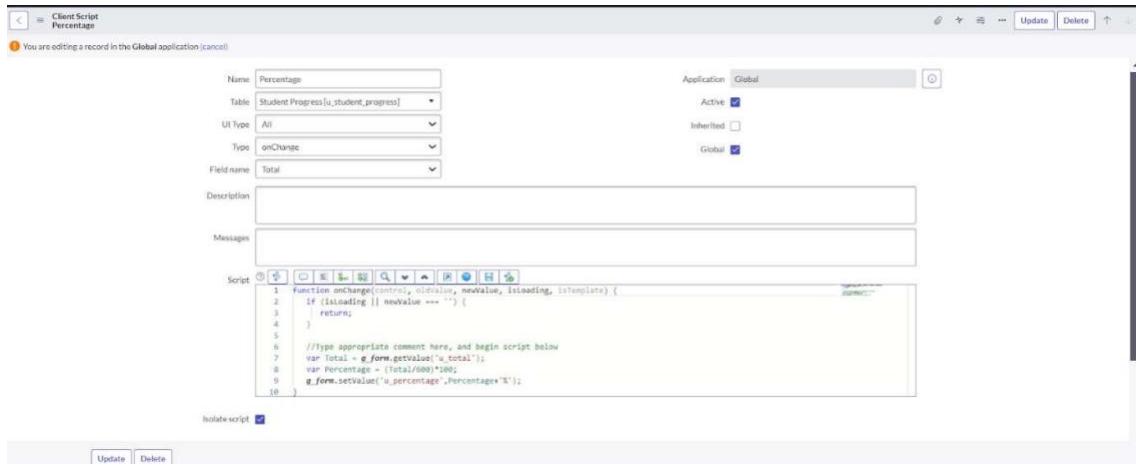
//Type appropriate comment here, and begin script below

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');
    }
}
}

```

Creating “Percentage” Client Scripts for Student progress Table

- Fill the Details as given.



- 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+'%');  

}
```

Conclusion : Whether for business or personal use, servicenow proves to be powerful tool for structured expense management.