

Educational Organisation Using ServiceNow

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Problem Statement:

The Educational Management System is a comprehensive platform designed to streamline administrative tasks within educational institutions. It facilitates efficient management of student and teacher data, simplifies the admission process, and provides tools for monitoring student progress.

Obejective:

The implementation of ServiceNow in an education organization aims to improve service delivery, streamline workflows, and enhance the experience for students, faculty, and staff. By centralizing requests and automating processes, the platform enables faster response times, better communication, and more efficient operations. It also supports data-driven decision-making, digital transformation, and ensures compliance with security and privacy standards, making it a valuable tool for modern educational environments.

Skills: Tensorflow

TASK INITIATION:

Milestone 1 : Setting up ServiceNow Instance

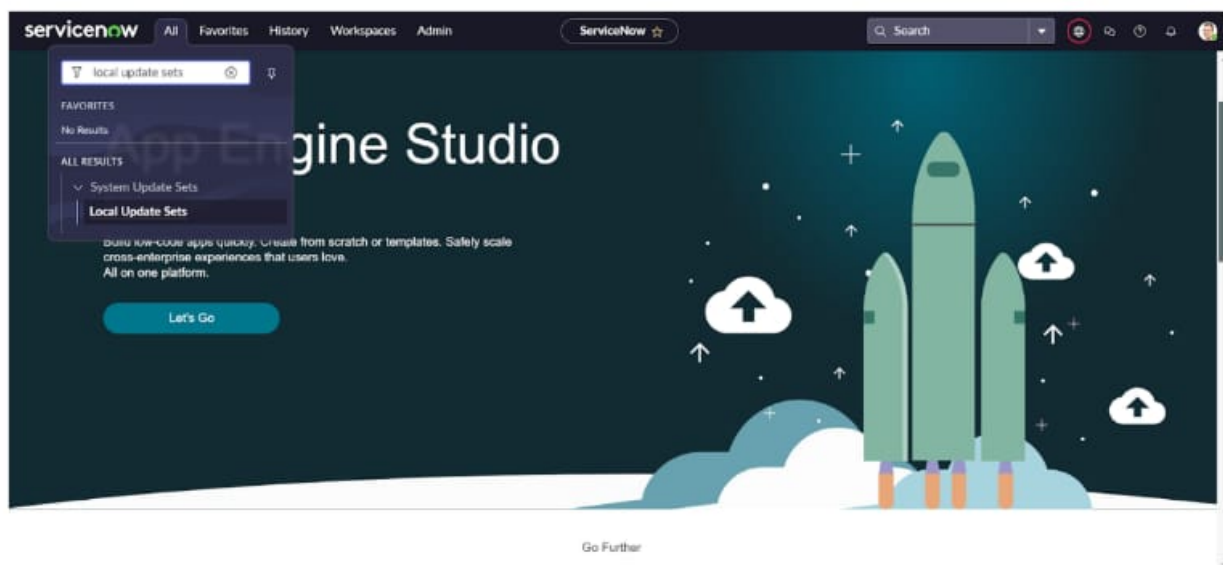
Activity 1: Setting up ServiceNow Instance

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

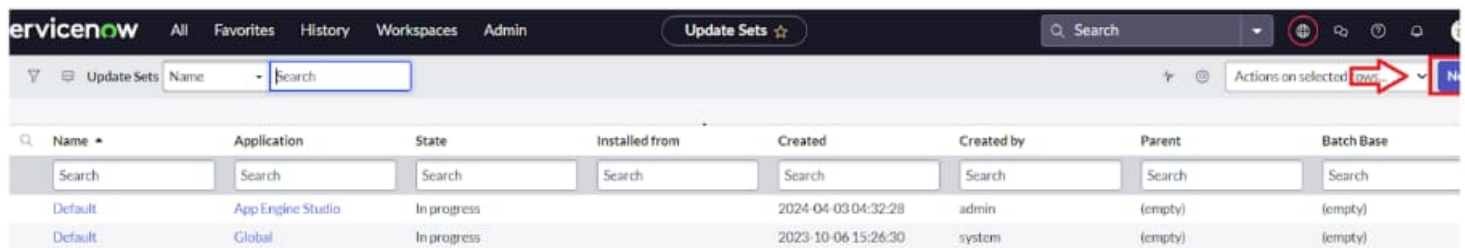
Milestone 2 : Creating a Update Set

Activity 1: Creating a Update Set

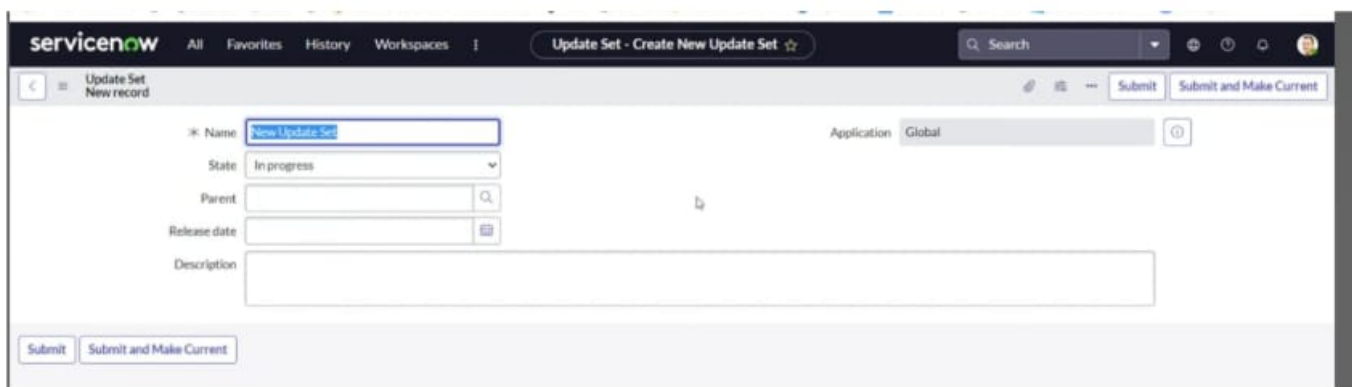
1. Click on All >> Local update sets .



2. Click on new



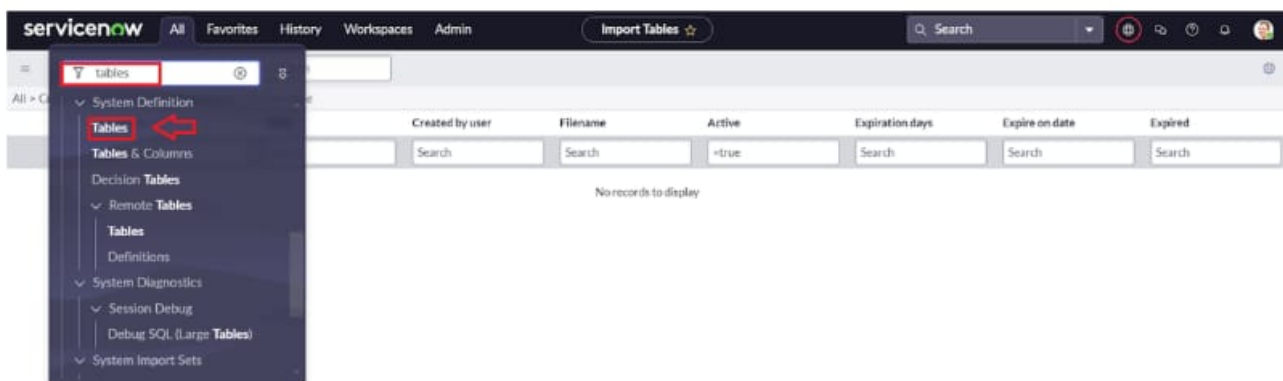
3. Enter the Details Name: Educational Organisation >> Click on Submit and make Current.



Milestone 3 : Creating a Table

Activity 1: Creating Salesforce Table

- All >> Tables.



- Click on new

Label	Name	Extends table	Extensible	Updated
Search	Search	Search	Search	Search
Adaptive Authentication Event	adaptive_auth_event	(empty)	false	2024-03-29 07:44:59
Agent Assist Recommendation	agent_assist_recommendation	Application File	false	2023-10-06 15:44:09
MID Server File	agent_file	(empty)	false	2023-10-06 15:29:08
Record Producer Configuration	aisa_rp_config	Application File	false	2023-10-06 15:47:19
Search Actions	aisa_ui_action	Application File	false	2023-10-06 15:47:19
AI Search ACL Overrides	ais_acl_overrides	Application File	false	2023-10-06 15:15:20
AI Search Active Table Ingestion Tracker	ais_active_table_ingestion_tracker	(empty)	false	2023-10-06 15:15:18

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

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

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
 * Name
 Extends table

Application: Global
 Create module ☒
 Create mobile module ☒
 Add module to menu -- Create new --
 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

Table - New Record

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

* Label
 * Name
 Extends table

Columns | Controls | Application Access

Table Columns for text Search

Dictionary Entries

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

Submit Cancel

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:getNextObj(Number Padded);
Father Cell	String	(empty)	40	false
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 Columns: for text Search

Dictionary Entries

Column label	Type	Reference	Max length	De	Display
Class	System Class Name	(empty)	80	jev	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

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

- Click on controls >> Enable Extensible.

Columns Controls Application Access

Extensible ☒ Live feed ☐

Prefix SAL

Number 1,000

Number of digits 7

Create access controls ☒

User role u_salesforce_user

- 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 .

Choice List Specification Calculated Value Default Value

Use dynamic default ☒

Dynamic default value: Get Next Padded Number

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

servicenow All Favorites History Workspaces Admin Dictionary Entry - Grade ☆

Dictionary Entry Grade

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

Label Search

Actions on selected rows... New

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

Insert a new row...

Activity 2: 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

servicenow All Favorites History Workspaces Admin **Table - New Record** Search

Table New record Submit Cancel

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

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

* Label Admission
* Name u_admission
Extends table Salesforce

Application Global
Create module ☒
Create mobile module ☒
Add module to menu Salesforce

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display

Submit Cancel

Activity 3:Creating Student Progress Table

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

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

Milestone 4 : Form Layout

Activity 1: Configuring Table form for Student Progress Table

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

<

≡

Table student progress

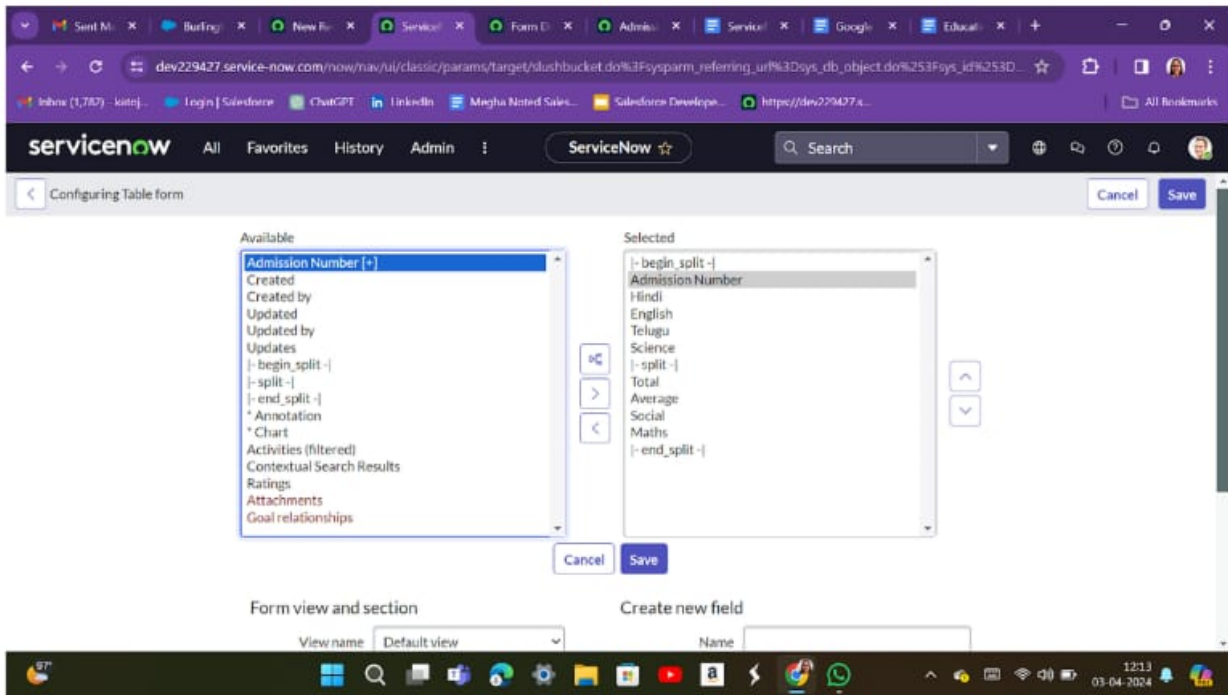
✖	Telugu	String	(empty)	40
✖	Total	String	(empty)	40
+	Insert a new row...			

UpdateDeleteDelete All Records

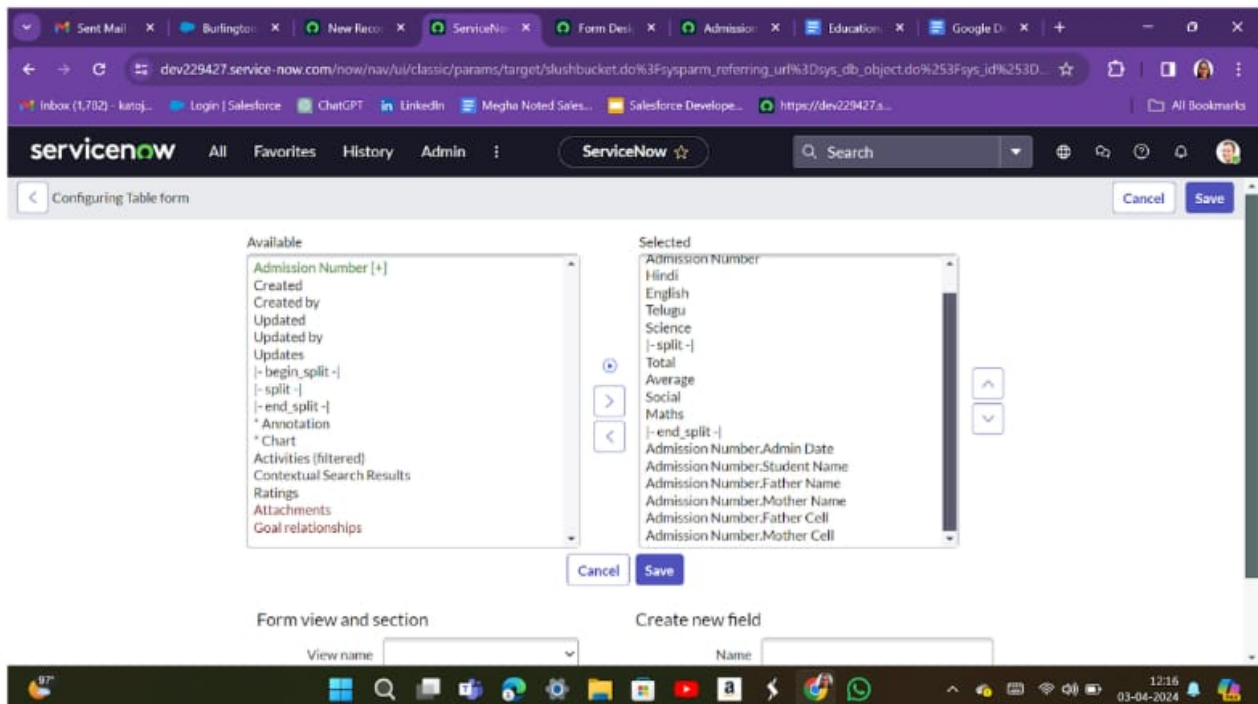
Related Links

[Design Form](#)[Layout Form](#)[Layout List](#)[Show Form](#)[Show List](#)[Show Schema Map](#)[Add to Service Catalog](#)[Run Point Scan](#)[Explore REST API](#)

- Click on Admission Number [+].



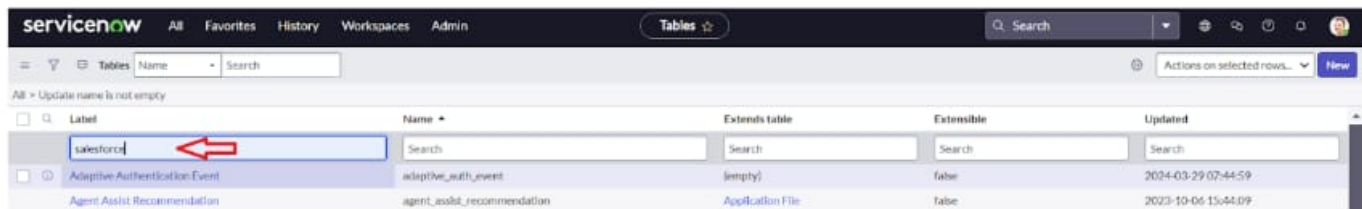
- Select below Admission Number fields in Available side and send it to selected side as below >> save.



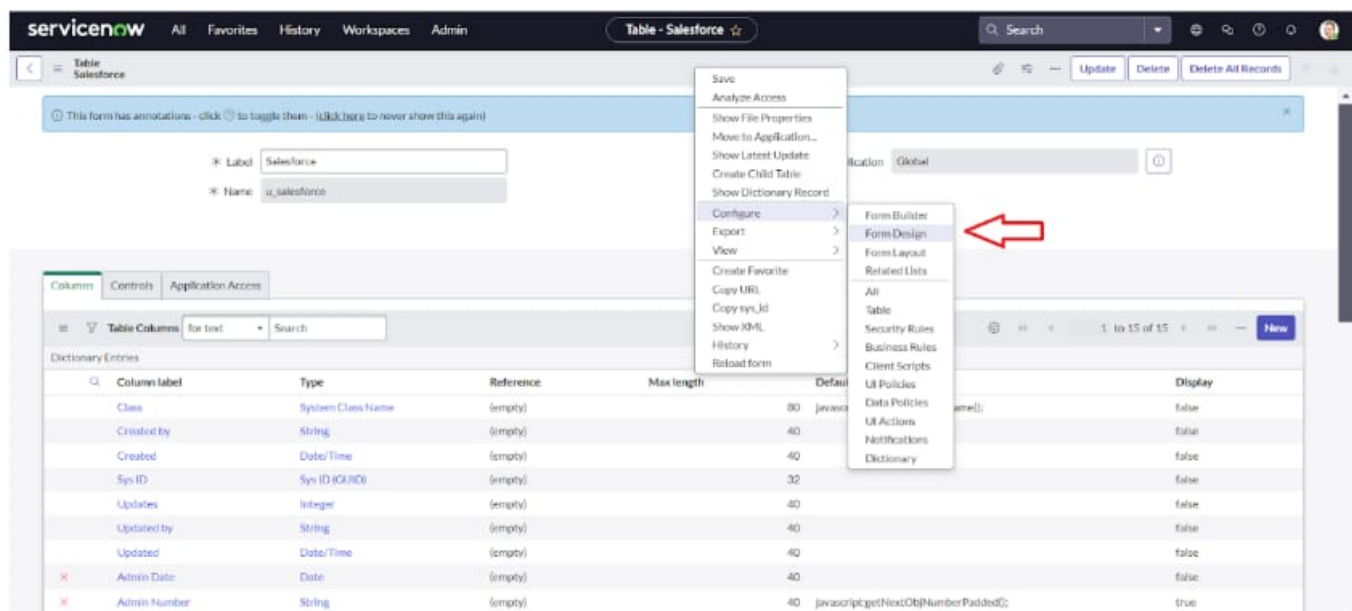
Milestone 5: Form Design

Activity 1: Creating Form Design for Salesforce Table

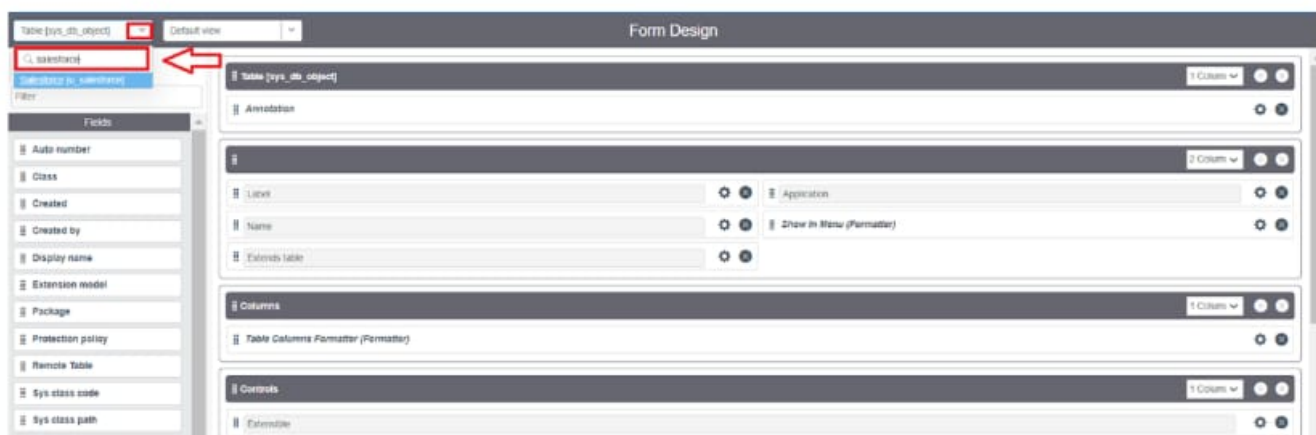
1. All >> System Definition >> Tables .
2. In Label Search for Salesforce and open



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.

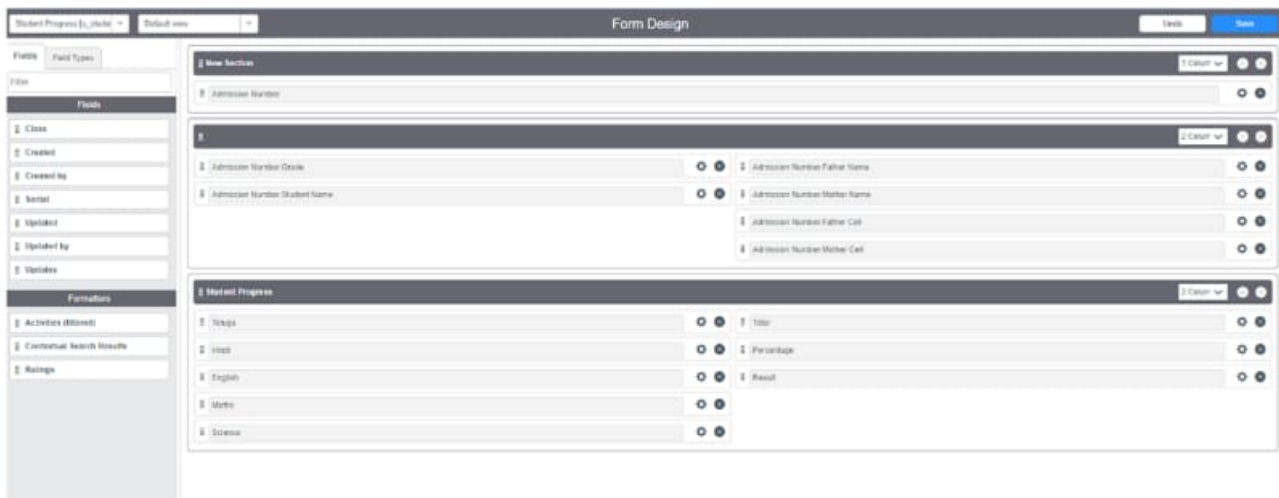
6.Save

Activity 2.:Creating Form Design for Admission Table

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

Activity3:Creating Form Design for Student progress Table

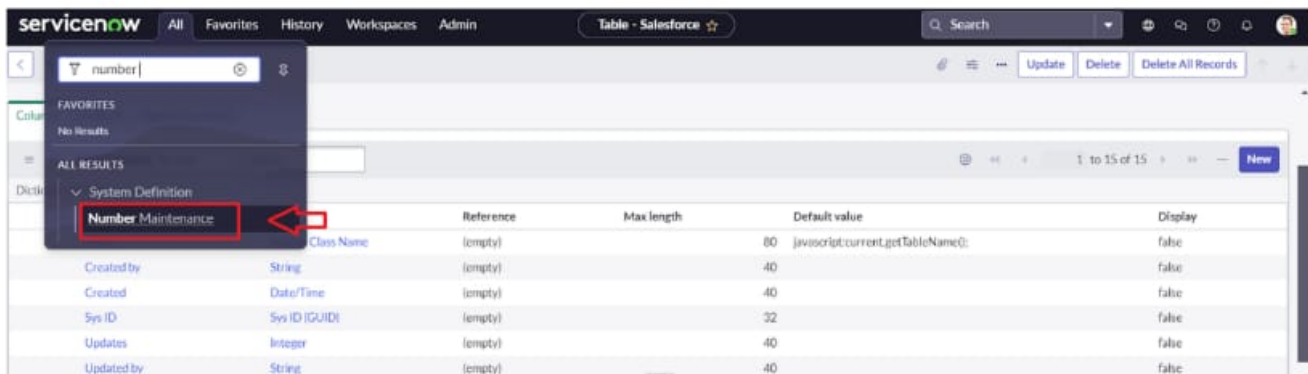
Follow the same steps as Activity1,Configure the fields as below and Save.



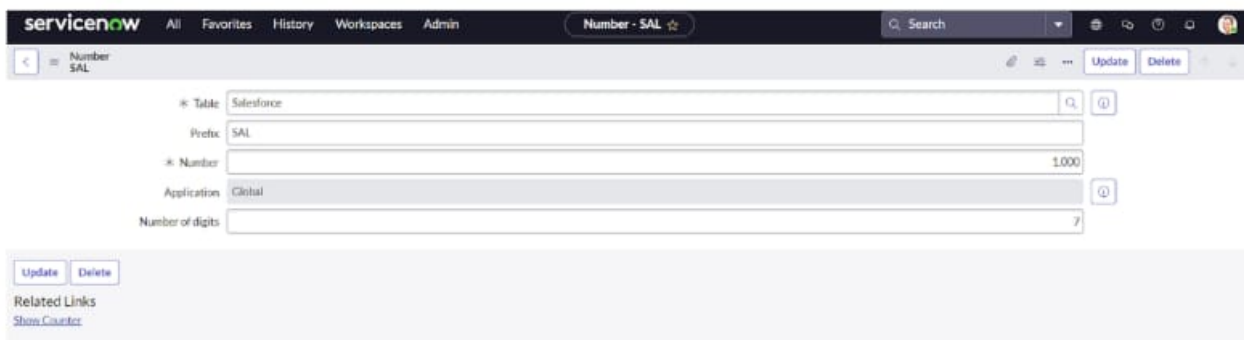
Milestone 6: Number Maintenance

Activity1: Creating Number Maintenance for AdminNumber

- All >> Number Maintenance >> New



- Fill the details >> Submit.



Milestone7:Prccess Flow

Activity1:Creating Process Flow for Admission Table

- All >> Process Flow>> New.
- Fill the Details as given Below

Flow Formatter New

Table: Admission [u_admission]

Name: New

Application: Global

Label: New

Order:

Active: ☒

Condition: Add Filter Condition Add "OR" Clause

Admin Status is New

Description:

Update Delete

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

Flow Formatter In progress

Table: Admission [u_admission]

Name: In progress

Application: Global

Label: In progress

Order:

Active: ☒

Condition: Add Filter Condition Add "OR" Clause

Admin Status is Join in progress

Description:

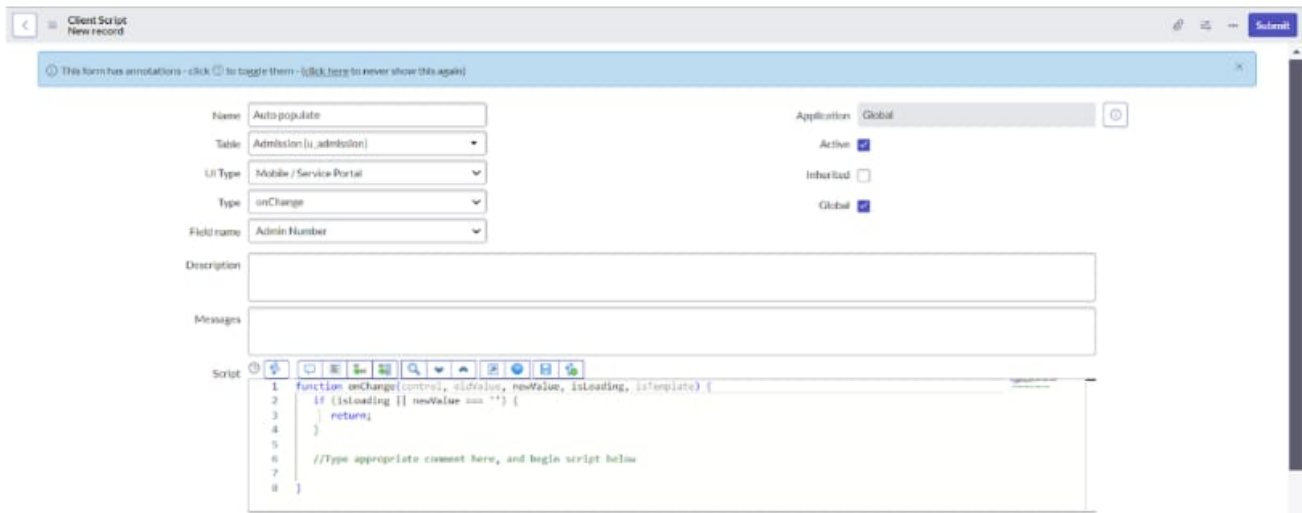
Update Delete

- 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.

Milestone8:Client Script

Activity1:Creating "Auto populate" Client Scripts for Admission Table

- All >> Client Scripts >> New.
- Fill the Details as given



The screenshot shows the 'Client Script New record' form in SAP. The form includes the following fields and values:

- Name: Auto-populate
- Table: Admission (u.admission)
- UI Type: Mobile / Service Portal
- Type: onChange
- Field name: Admin Number
- Application: Global
- Active: ☒
- Inherited: ☐
- Global: ☒

The Description and Messages fields are empty. The Script field contains the following code:

```
1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {  
2   if (isLoading || newValue === '') {  
3     return;  
4   }  
5  
6   //Type appropriate comment here, and begin script below  
7  
8 }
```

- 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);
        }
```

Activity2:Creating "Pincode Update" Client Scripts for Admission Table

- Fill the Details as given.

The screenshot shows the 'Client Script' configuration window for a script named 'Pincode Update'. The configuration details are as follows:

- Name:** Pincode Update
- Table:** Admission [u_admission]
- UI Type:** Desktop
- Type:** onChange
- Field name:** Prcode
- Application:** Global
- Active:** ☒
- Inherited:** ☐
- Global:** ☒

The 'Script' section contains the following code:

```
1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {  
2   if (isLoading || newValue === '') {  
3     return;  
4   }  
5   var a = g_form.getValue('u_pincode');  
6   if(a == '509358')  
7   {  
8     g_form.setValue('u_mandal', 'kadthal');  
9     g_form.setValue('u_city', 'kadthal');  
10  }
```

- 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
}
```

Activity3:Creating "Disable Fields" Client Scripts for Student progress Table

- Fill the Details as given.

Client Script
Disable Fields

This form has associations - Click [here](#) to toggle them - [Click here](#) to never show this again

Name:

Table:

UI Type:

Type:

Application:

Active: ☒

Inherited: ☐

Global: ☒

Description:

Messages:

Script

```

1 function onload() {
2     //Type appropriate comment here, and begin script below
3     g_form.setDisabled('u_total',true);
4     g_form.setDisabled('u_percentage',true);
5     g_form.setDisabled('u_result',true);
6 }

```

- 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);

```

```

}

```

Activity4:Creating "Total Update" Client Scripts for Student progress Table

- Fill the Details as given.

servicenow All Favorites History Workspaces Admin Client Script - Total Up...

Client Script
Total Update

You are editing a record in the Global application (can edit)

Name:

Table:

UI Type:

Type:

Field name:

Application:

Active: ☒

Inherited: ☐

Global: ☒

Description:

Messages:

Script

```

1 function onChange(control, null, null, null, isTemplate) {
2     if (isLoading || null === '') {
3         return;
4     }
5
6     //Type appropriate comment here, and begin script below
7     if (nullValue){
8         var a = parseInt(g_form.getValue('u_total'));
9         var b = parseInt(g_form.getValue('u_hindi'));
10        var c = parseInt(g_form.getValue('u_english'));
11        var d = parseInt(g_form.getValue('u_sciences'));
12        var e = parseInt(g_form.getValue('u_social'));
13        var f = parseInt(g_form.getValue('u_total'));
14        var Total = parseInt(a+b+c+d+e+f);
15        g_form.setValue('u_total', Total);
16    }
17 }

```

Isolate script

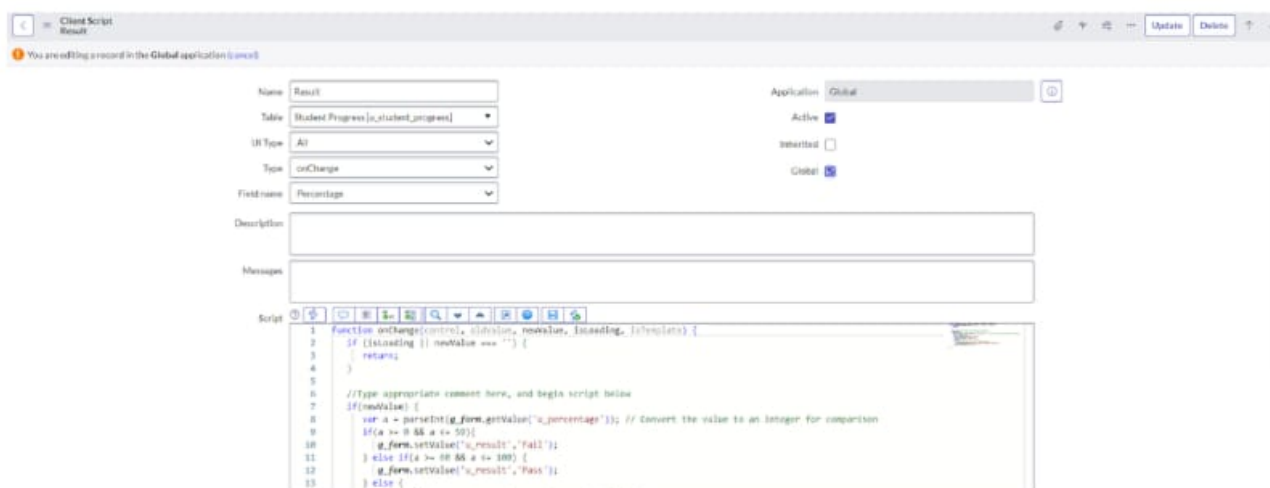
- Write the Code as below, Enable Isolate script and Save.

```
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);
}
}
```

Activity5: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.');

Activity6:Creating "Percentage" Client Scripts for Student progress Table

- Fill the Details as given.

Client Script
Percentage

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

Name: Percentage

Table: Student Progress [u_student_progress]

UI Type: All

Type: onChange

Field name: Total

Application: Global

Active: ☒

Inherited: ☐

Global: ☒

Description:

Messages:

Script

```

1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2   if (isLoading || newValue === '') {
3     return;
4   }
5
6   //Type appropriate comment here, and begin script below
7   var Total = g_form.getValue('u_total');
8   var Percentage = (Total/600)*100;
9   g_form.setValue('u_percentage',Percentage+'%');
10 }

```

Isolate script: ☒

Update Delete

- 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+'%');

```

```

}

```

Result:

Substance

New record

Submit

Admin Number

SAL0005078

Father Name

Admin Date

Mother Name

Grade

-- None --

Mother Cell

Student Name

Father Cell

Submit

Admission

New record

Submit

New

In progress

Joined

Rejected

Rejoined

Closed

Cancelled

Admission Number

Admission Date

Purpose of join

-- None --

Grade

-- None --

Student Name

Fee

\$ 0.00

Father Name

Father Cell

Mother Name

Mother Cell

Admin Status

-- None --

Comments

School Details

Address

School Area

-- None --

School

-- None --

Submit

New Section

New record

Submit

Admission Number

Father Name

Grade

-- None --

Mother Name

Student Name

Father Cell

Mother Cell

Student Progress

Telugu

Total

Hindi

Percentage

English

Result

Maths

Science

Social

Submit