

Project Title : Educational Organization using ServiceNow

Team Id: NM2025TMID12788

Team Members:

Team Leader: Prince Bermecha V

Team Member 1 : Roshan

Team Member 2 : Ashwin A

Team Member 3 : Musharaf Shuaib P

Problem Statement : Student Management

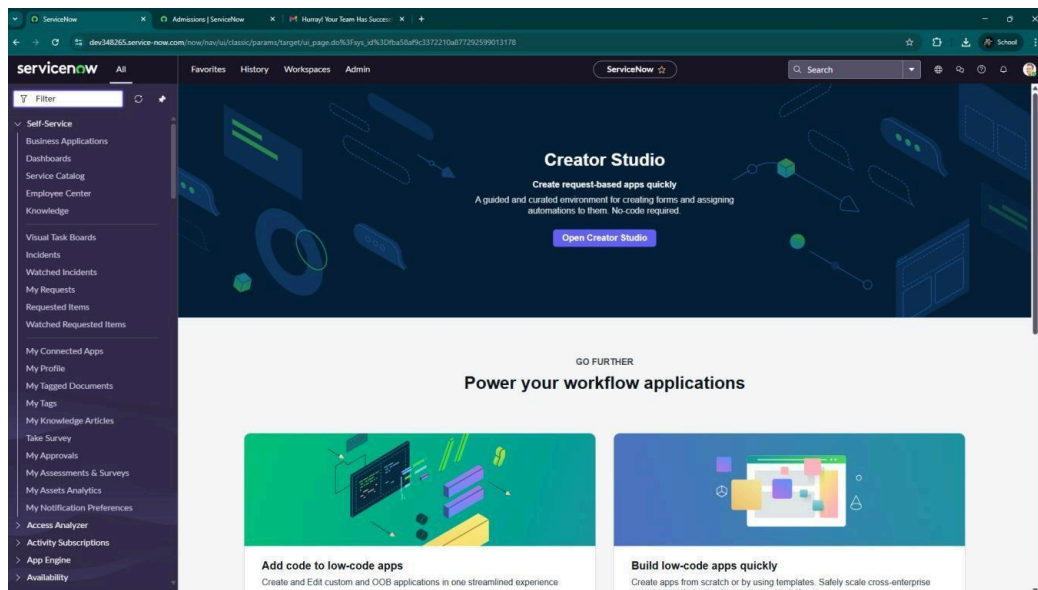
Objective : To Create Educational Organization

Skills : ServiceNow

INTRODUCTION :

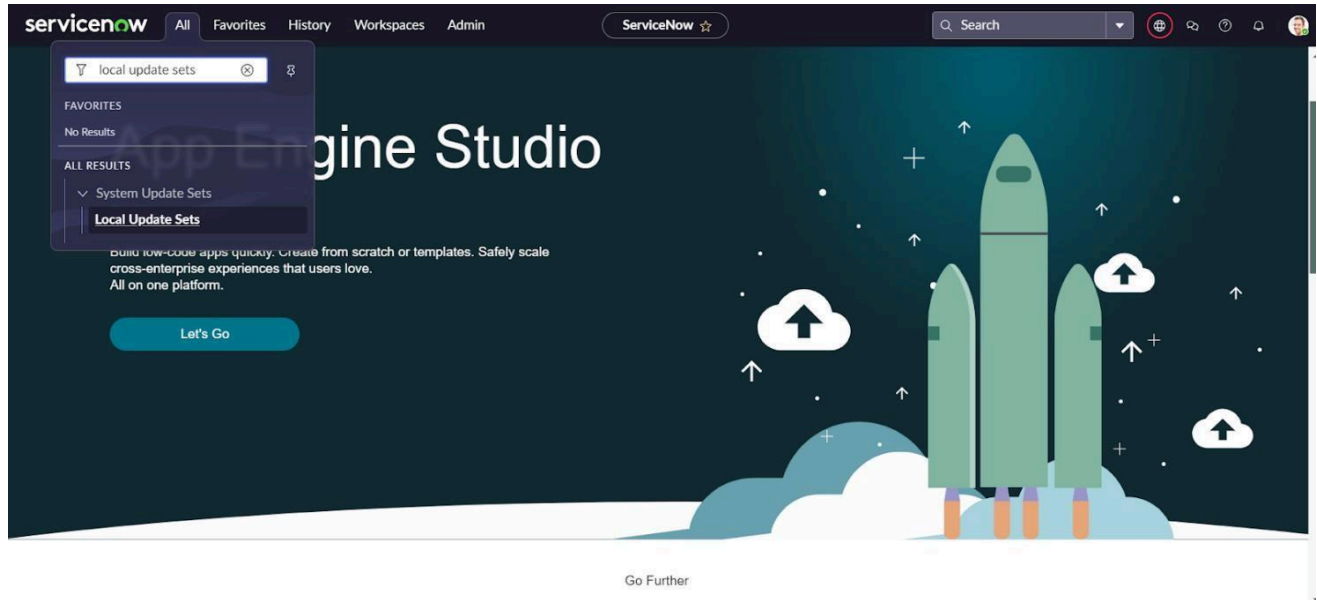
The Educational Management System is a comprehensive platform designed to streamline administrative tasks within educational institutions. It facilitates efficient management of student and teacher data, simplifies the admission process, and provides tools for monitoring student progress.

Setting up ServiceNow Instance : (Milestone 1)

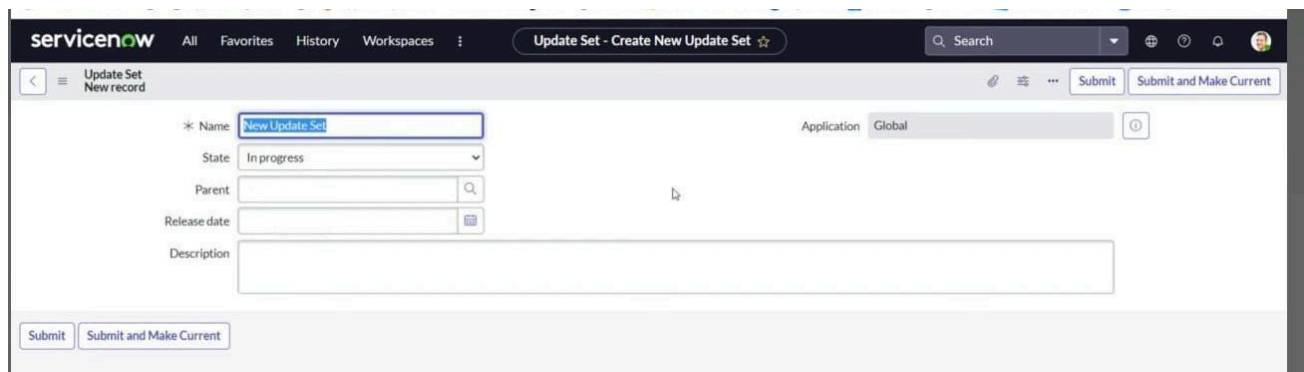


1. Sign up for a developer account on the ServiceNow Developer site "<https://developer.servicenow.com>".
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.
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.

Creating a Update Set : (Milestone 2)



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



Update Set - Create New Update Set

Name:

State:

Parent:

Release date:

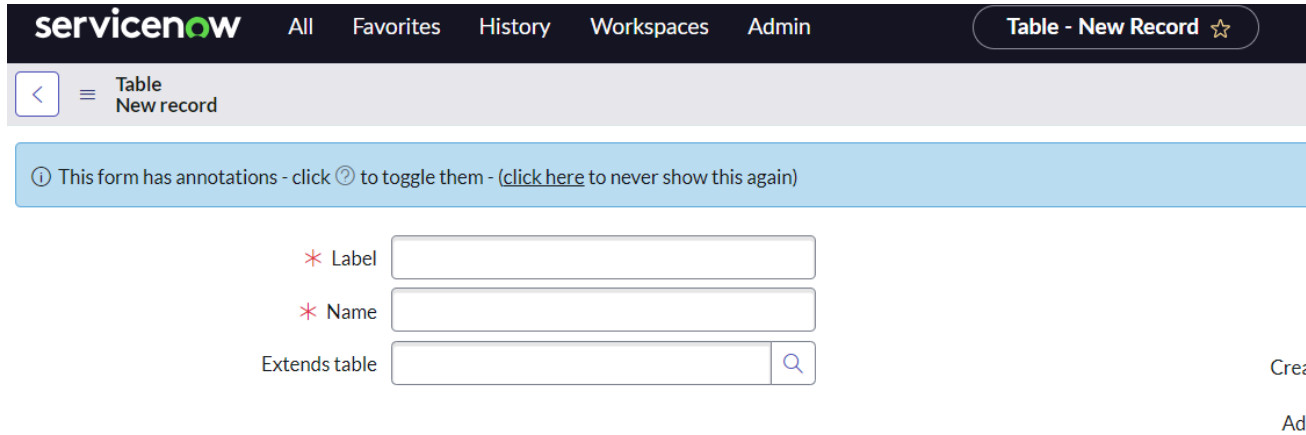
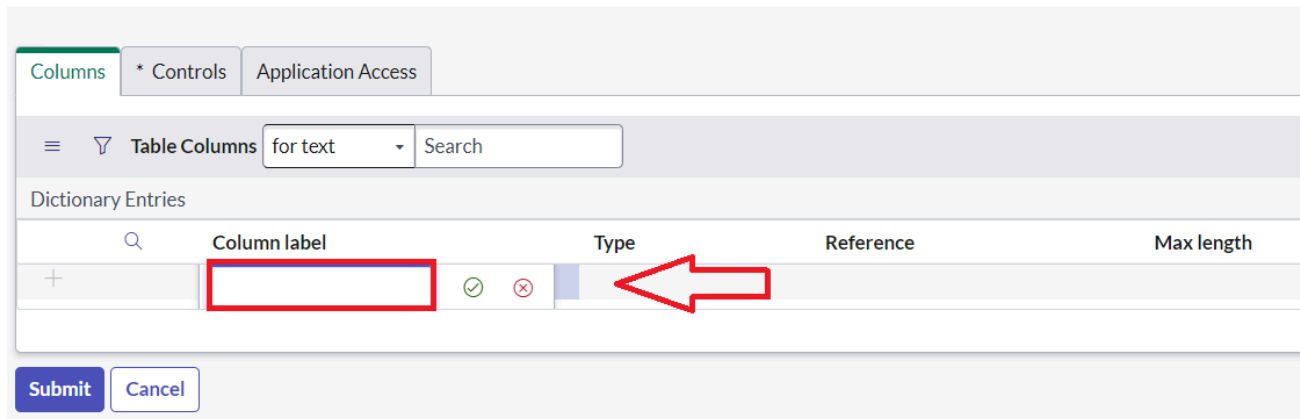
Description:

Application:

Buttons: Submit, Submit and Make Current

Creating a Table : (Milestone 3) Creating Salesforce Table

- All >> Tables.
- Click on new
- Enter the Label(Anything you want): Salesforce >> Click on Name it will Automatically generate Api 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 .
- For “Admin Number” Give Display as True and right click on the toggle bar on top >> save.
- 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 .

servicenow All Favorites History Workspaces Admin 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...

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

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

This form has annotations - click to toggle them - (Click here to view show this again)

Label: Admission Application: Global

Name: u_admission Create module: ☒

Extends table: Salesforce Create module to menu: ☒ Salesforce

Columns Controls Application Access

Table Columns: No tool Search

Dictionary Entries	Column label	Type	Reference	Min length	Default value	Display

Submit Cancel

Table: Admission Columns Controls Application Access

Table Columns: No tool Search

Dictionary Entries	Column label	Type	Reference	Min length	Default value	Display
	App ID	App ID (X-RD)	Simple	32		Value
	Admission Status	Choice	Simple	40		Value
	Admission Number	Reference	Salesforce	32		Value
	Area	String	Simple	40		Value
	City	String	Simple	40		Value
	Comments	String (Full UTF-8)	Simple	255		Value
	Class	String	Simple	40		Value
	Fee	Price	Simple	30		Value
	House No	String	Simple	40		Value
	Gender	String	Simple	40		Value
	Phone No	Choice	Simple	40		Value
	Purpose of job	Choice	Simple	40		Value
	School	Choice	Simple	40		Value
	School Area	Choice	Simple	40		Value
	Class	System Class Name	Simple	80	(javascript:window.getSalesforce())	Value

- Create choice for Admin Status as:

Dictionary Entry Admin Status

Create Choice List Delete Column Update

Related Links
Show Table
Run Point Scan
Advanced view

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

Label Search

Actions on selected rows... New

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

Insert a new row...

- Create choice for Pincode as:

Access Controls Choices (3) Attributes Labels (1) Dictionary Overrides

Label Search

Actions on selected rows... New

Label	Value	Language	Sequence	Inactive	Updated
509358	509358	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:

Access Controls Choices (3) Attributes Labels (1) Dictionary Overrides

Label Search

Actions on selected rows... New

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:

Access Controls Choices (2) Attributes Labels (1) Dictionary Overrides

Label Search

Actions on selected rows... New

Label	Value	Language	Sequence	Inactive	Updated
Stanley	Stanley	en	1	false	2024-04-02 21:19:14
Naresh IT	Naresh IT	en	2	false	2024-04-02 21:19:35

Insert a new row...

- Create choice for School Area as:

Access Controls Choices (2) Attributes Labels (1) Dictionary Overrides

Label Search

Actions on selected rows... New

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:

×	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...				

Form Layout : (Milestone 4)

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...			

Update

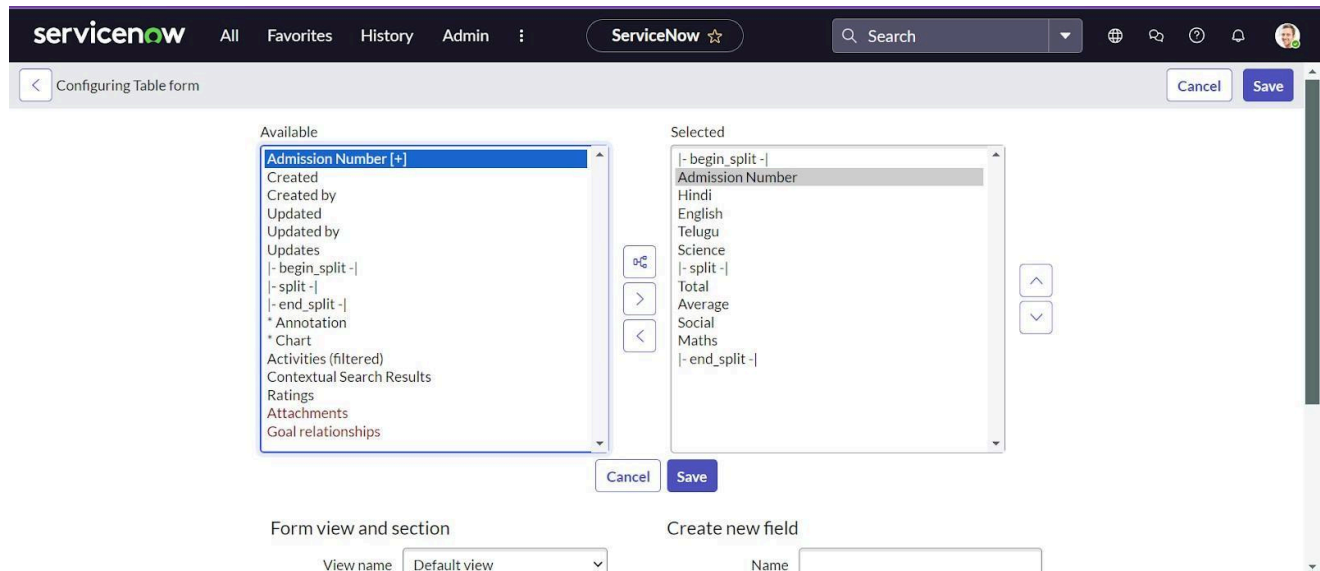
Delete

Delete 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 [+].



servicenow All Favorites History Admin ServiceNow Search

< Configuring Table form Cancel Save

Available
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

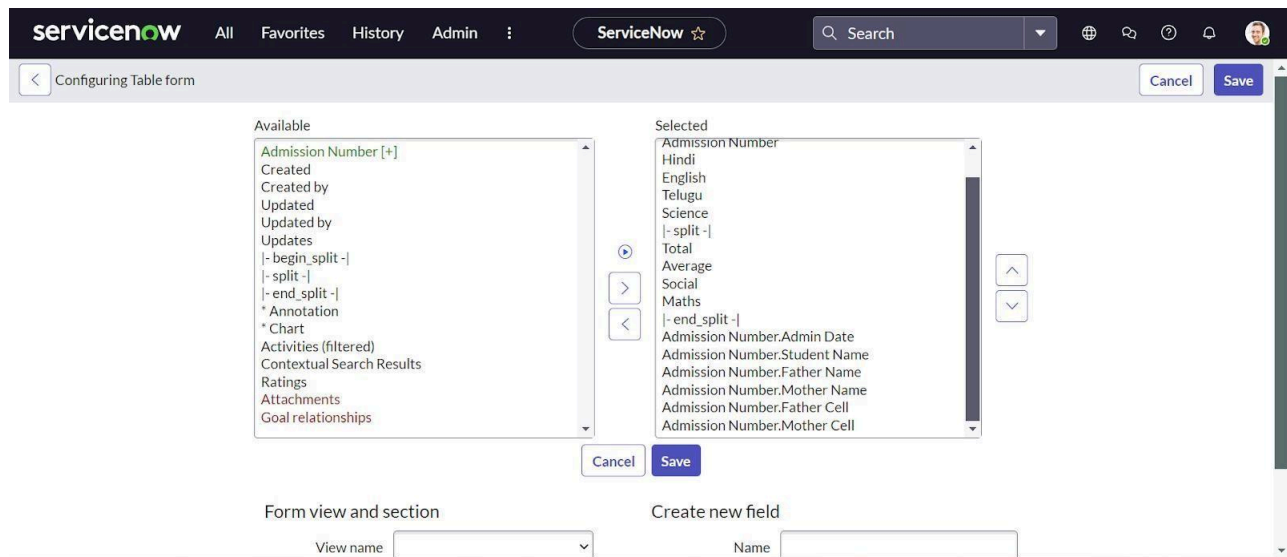
Selected
|- begin_split -|
Admission Number
Hindi
English
Telugu
Science
|- split -|
Total
Average
Social
Maths
|- end_split -|

Cancel Save

Form view and section Create new field

View name Default view Name

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



servicenow All Favorites History Admin ServiceNow Search

< Configuring Table form Cancel Save

Available
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

Selected
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

Cancel Save

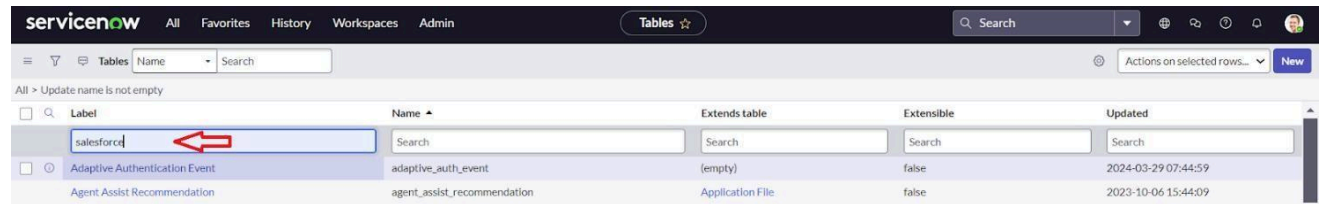
Form view and section Create new field

View name Name

Form Design : (Milestone 5)

Creating Form Design for Salesforce Table

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

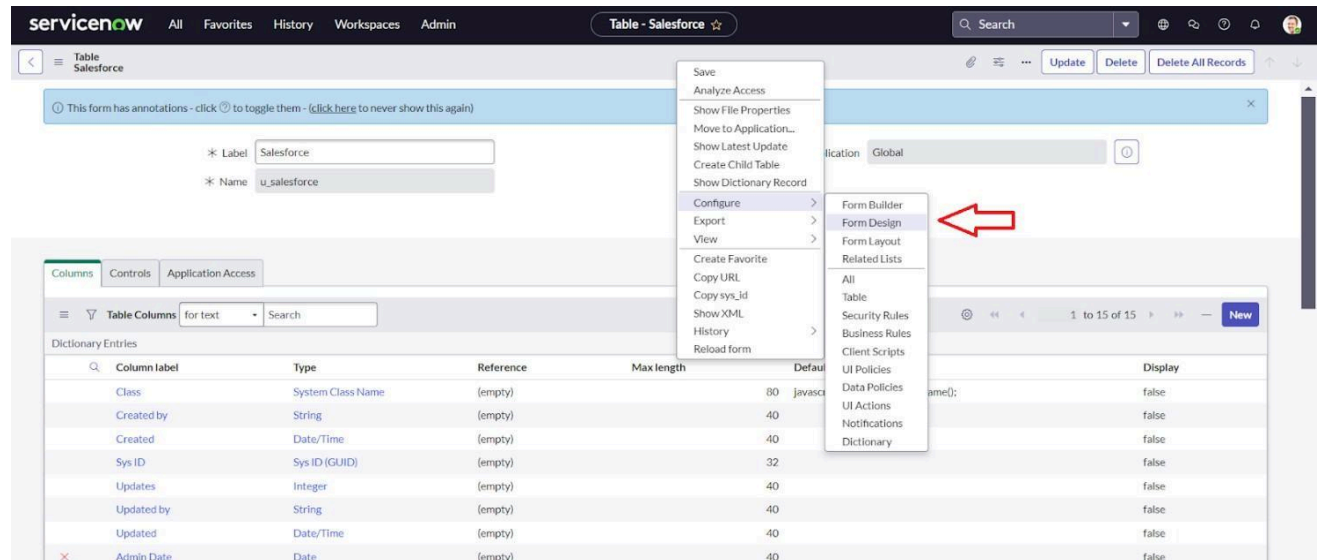


servicenow All Favorites History Workspaces Admin Tables Search

Update name is not empty

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

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



servicenow All Favorites History Workspaces Admin Table - Salesforce Search

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

* Label Salesforce

* Name u_salesforce

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default	Display
Class	System Class Name	(empty)	80	javascript	false
Created by	String	(empty)	40		false
Created	Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Updates	Integer	(empty)	40		false
Updated by	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Admin Date	Date	(empty)	40		false

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

Form Builder
Form Design
Form Layout
Related Lists
All
Table
Security Rules
Business Rules
Client Scripts
UI Policies
Data Policies
UI Actions
Notifications
Dictionary

4. In drop down select Salesforce(u_salesforce).

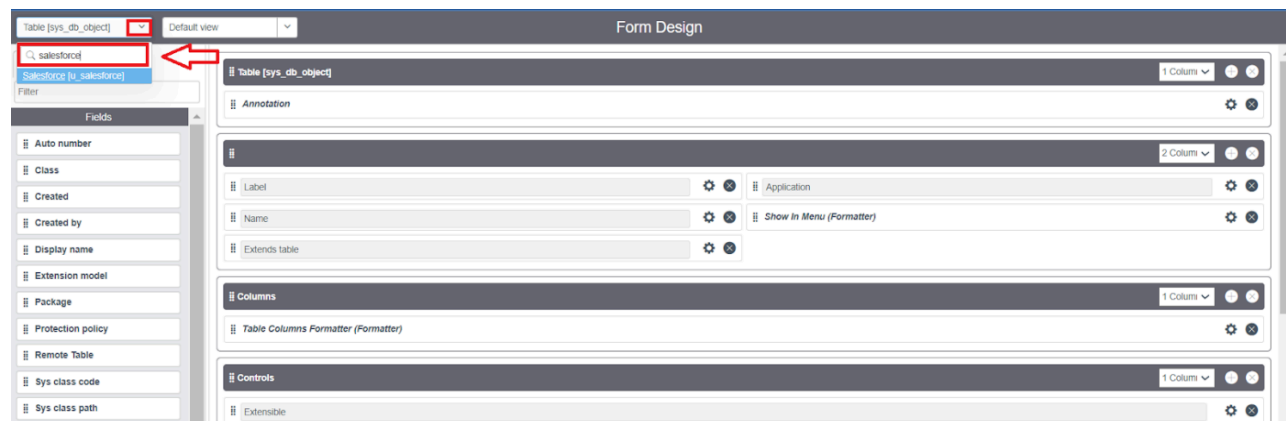


Table [sys_db_object] Default view

Form Design

Table [sys_db_object]

Annotation

Label

Name

Extends table

Columns

Table Columns Formatter (Formatter)

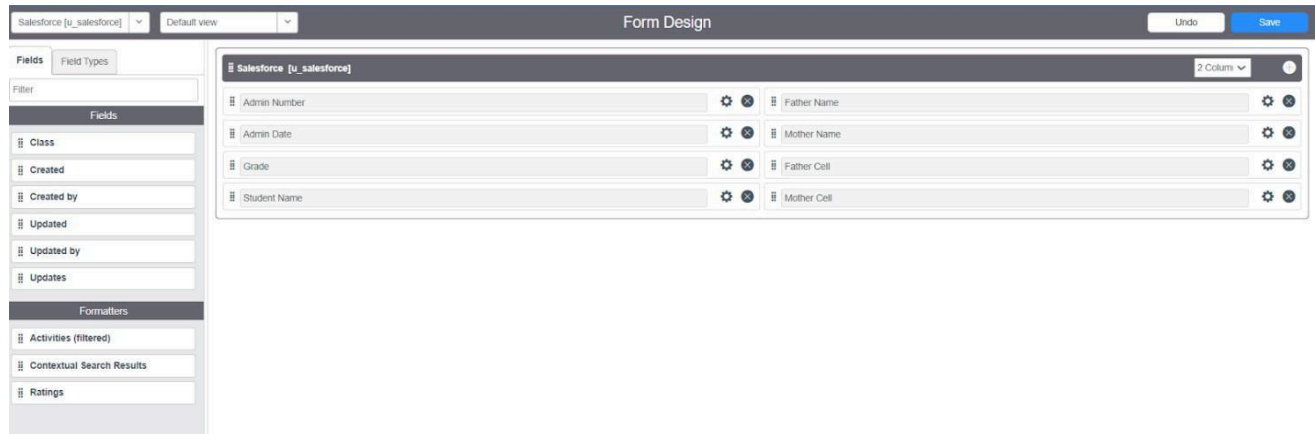
Controls

Extensible

Fields

- Auto number
- Class
- Created
- Created by
- Display name
- Extension model
- Package
- Protection policy
- Remote Table
- Sys class code
- Sys class path

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



Form Design | Salesforce [u_salesforce] | Default view | Undo | Save

Fields | Field Types

Filter:

Fields

- Class
- Created
- Created by
- Updated
- Updated by
- Updates

Formatters

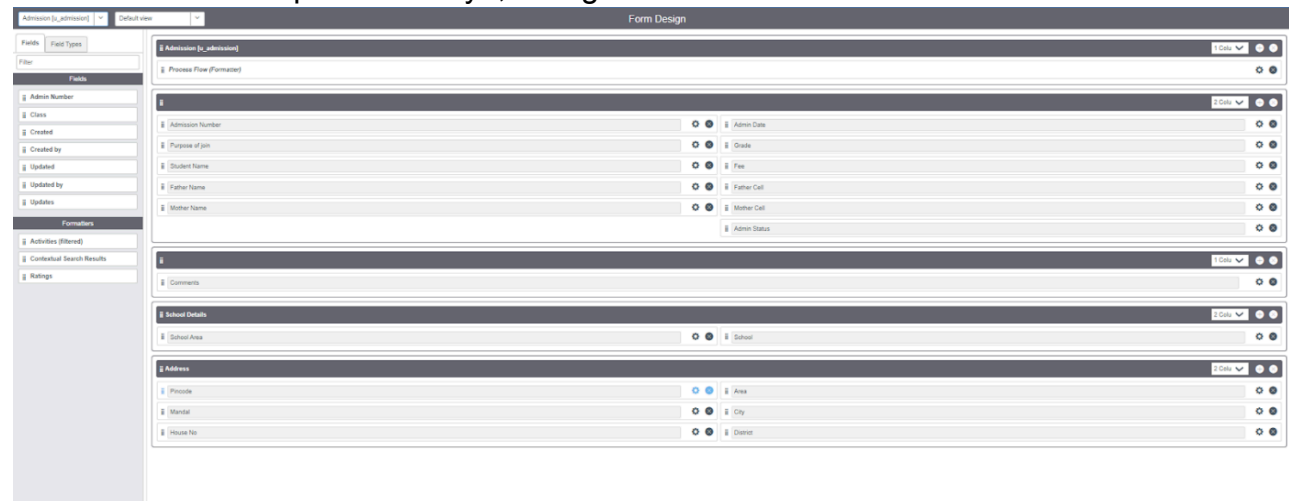
- Activities (filtered)
- Contextual Search Results
- Ratings

Salesforce [u_salesforce] | 2 Columns

Admin Number	Father Name
Admin Date	Mother Name
Grade	Father Cell
Student Name	Mother Cell

Creating Form Design for Admission Table

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



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

Fields | Field Types

Filter:

Fields

- Admin Number
- Class
- Created
- Created by
- Updated
- Updated by
- Updates

Formatters

- Activities (filtered)
- Contextual Search Results
- Ratings

Admission [u_admission] | 1 Date

Process Flow (Formatter)

Admission [u_admission] | 2 Date

Admission Number	Admission Date
Purpose of join	Grade
Student Name	Fee
Father Name	Father Cell
Mother Name	Mother Cell
	Admission Status

Comments | 1 Date

School Details | 1 Date

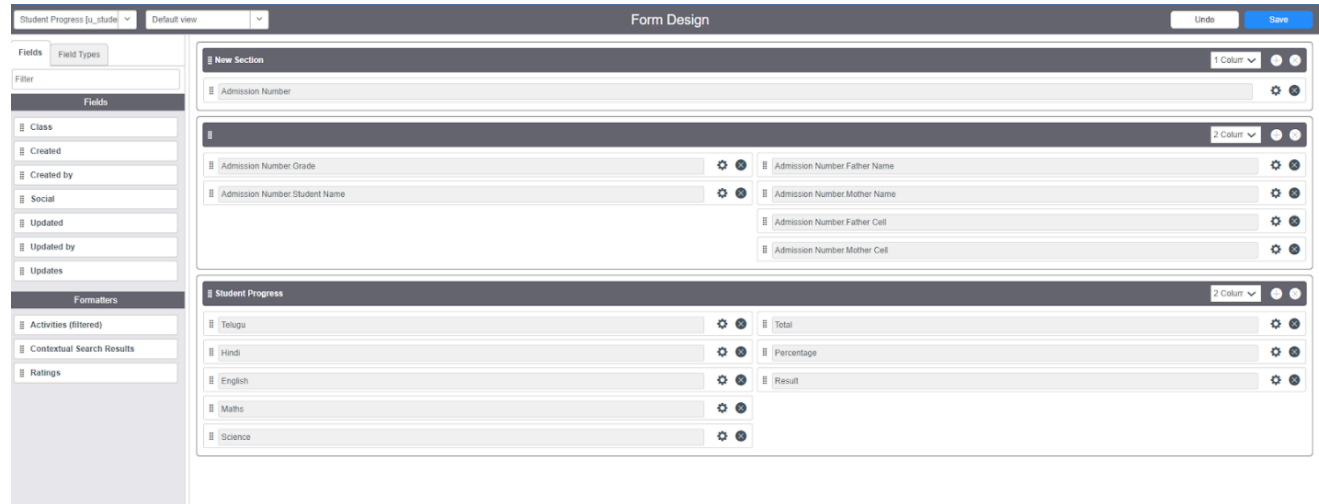
School Area	School
-------------	--------

Address | 2 Date

Pincode	Area
Ward	City
House No	District

Creating Form Design for Student progress Table

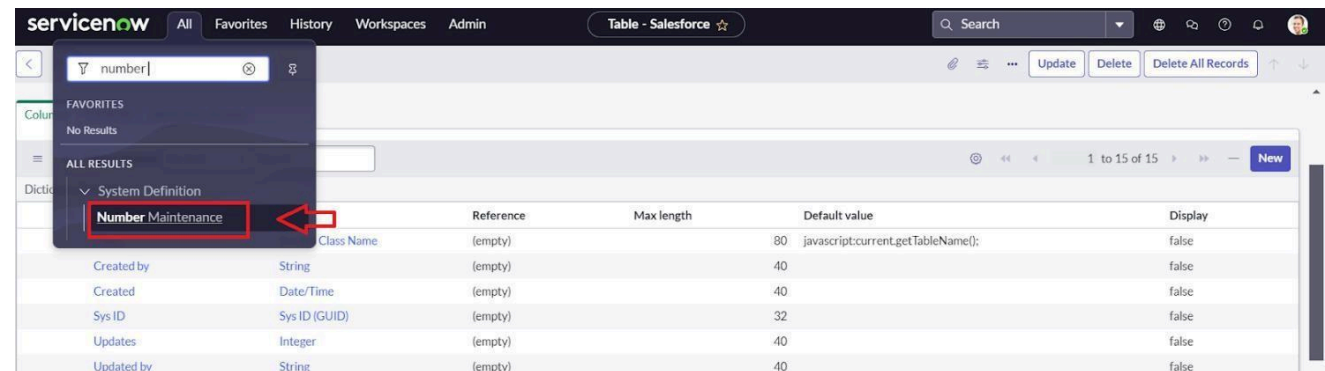
Follow the same steps as Activity1, Configure the fields as below and Save.



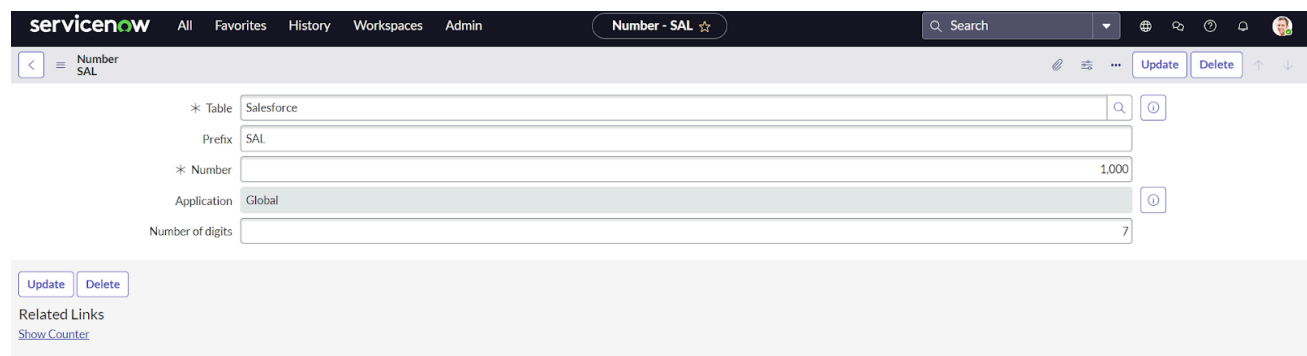
Number Maintenance : (Milestone 6)

Creating Number Maintenance for Admin Number

- All >> Number Maintenance >> New



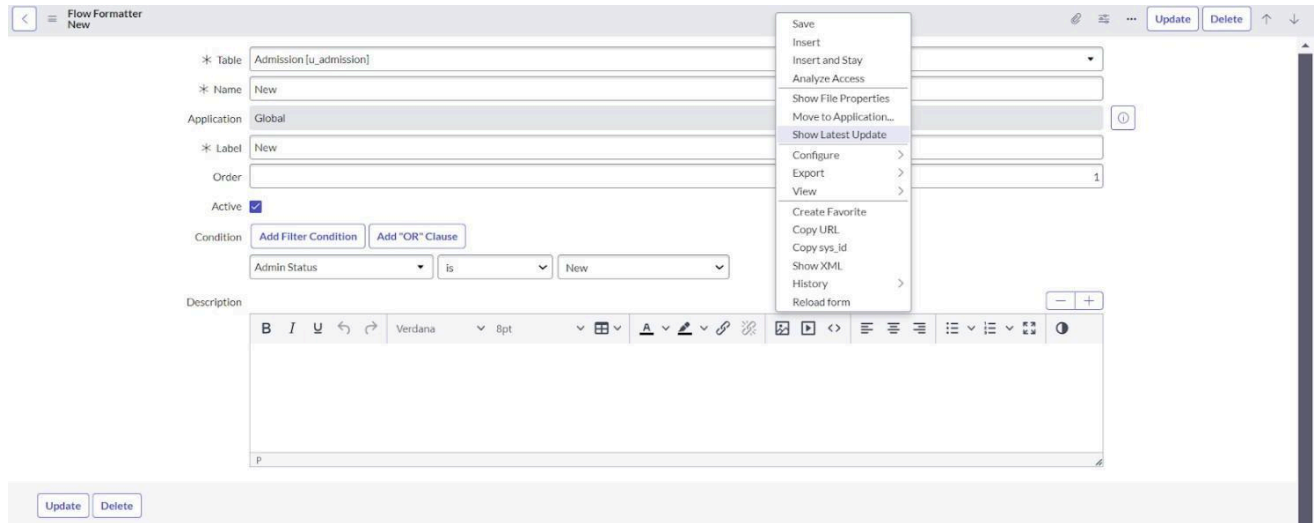
- Fill the details >> Submit.



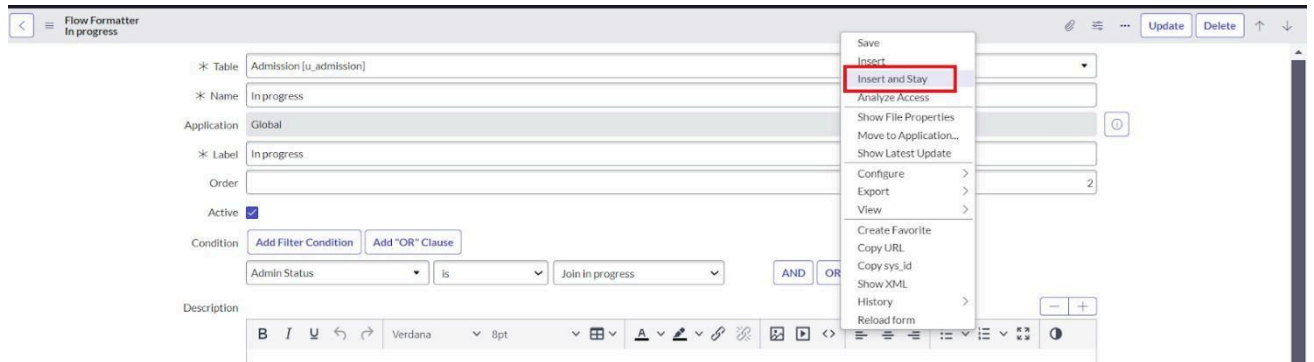
Process Flow : (Milestone 7)

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.

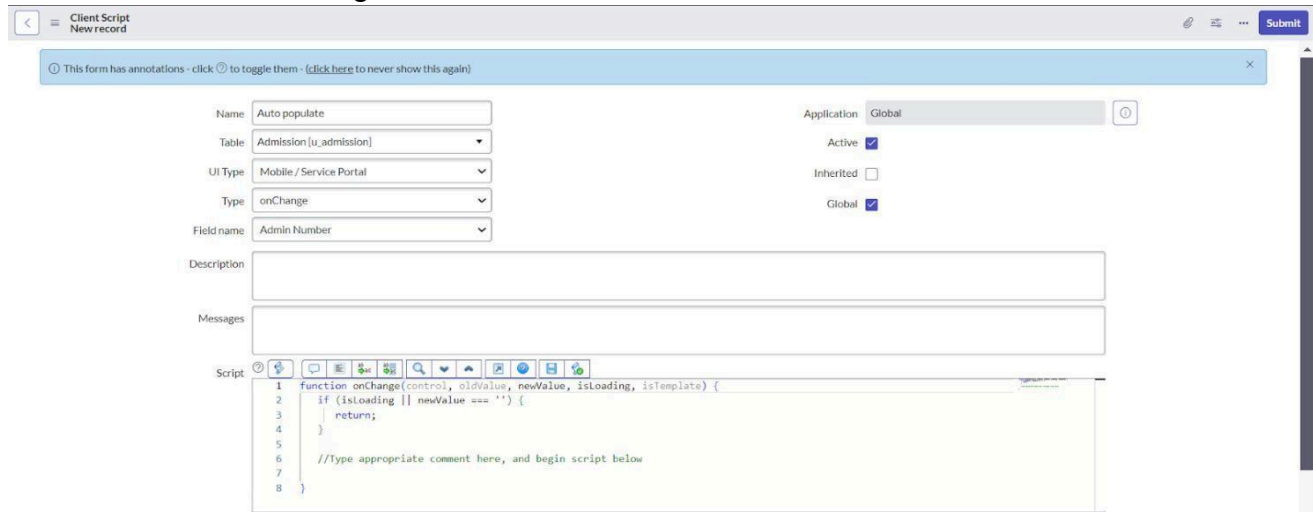


Closed >> Cancelled.

Client Script (Milestone 8)

Creating "Auto populate" Client Scripts for Admission Table

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



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

Name:

Table:

UI Type:

Type:

Field name:

Application:

Active: ☒

Inherited: ☐

Global: ☒

Description:

Messages:

Script

```

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

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

```

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

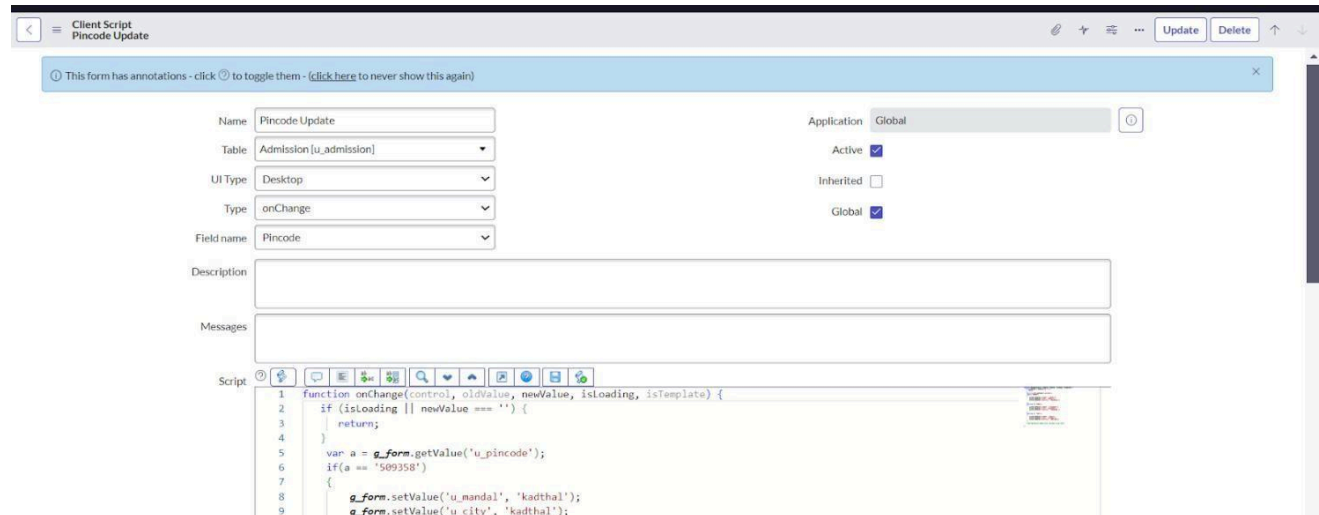
```

//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);
  
```

Creating "Pincode Update" Client Scripts for Admission Table

- Fill the Details as given.



The screenshot shows the 'Client Script' configuration window for 'Pincode Update'. The form includes the following fields and settings:

- Name:** Pincode Update
- Table:** Admission [u_admission]
- UI Type:** Desktop
- Type:** onChange
- Field name:** Pincode
- Application:** Global
- Active:** ☒
- Inherited:** ☐
- Global:** ☒
- Description:** (Empty text area)
- Messages:** (Empty text area)
- Script:**

```

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');

```

- 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');
  }
}

```

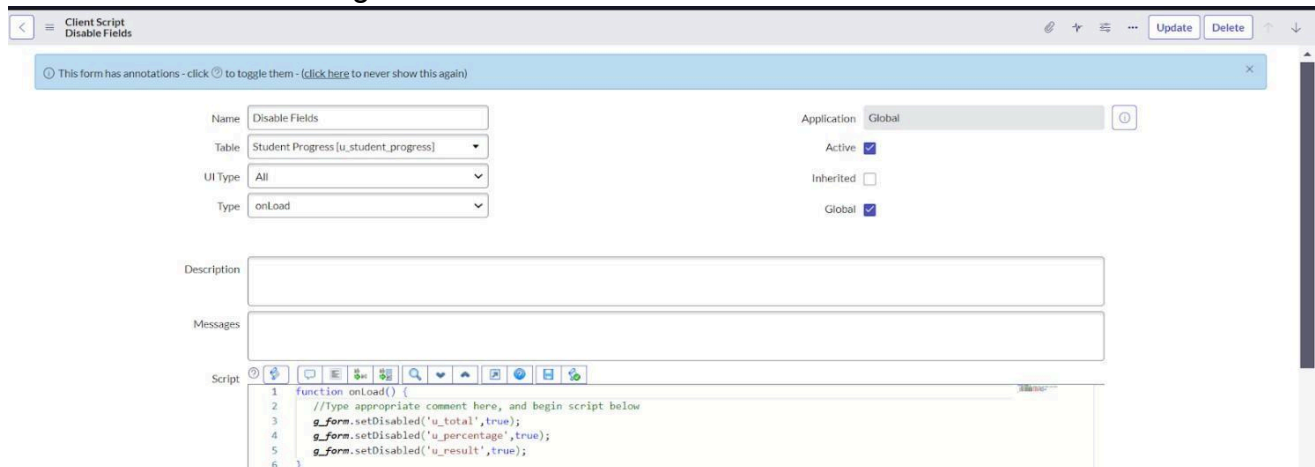
```

    }
    else if(a == '500079')
  }

```

Creating “Disable Fields” Client Scripts for Student progress Table

- Fill the Details as given.



The screenshot shows the 'Client Script' configuration window for a script named 'Disable Fields'. The configuration includes the following details:

- Name:** Disable Fields
- Table:** Student Progress [u_student_progress]
- UI Type:** All
- Type:** onLoad
- Application:** Global
- Active:** ☒
- Inherited:** ☐
- Global:** ☒
- Description:** (Empty text area)
- Messages:** (Empty text area)
- 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.

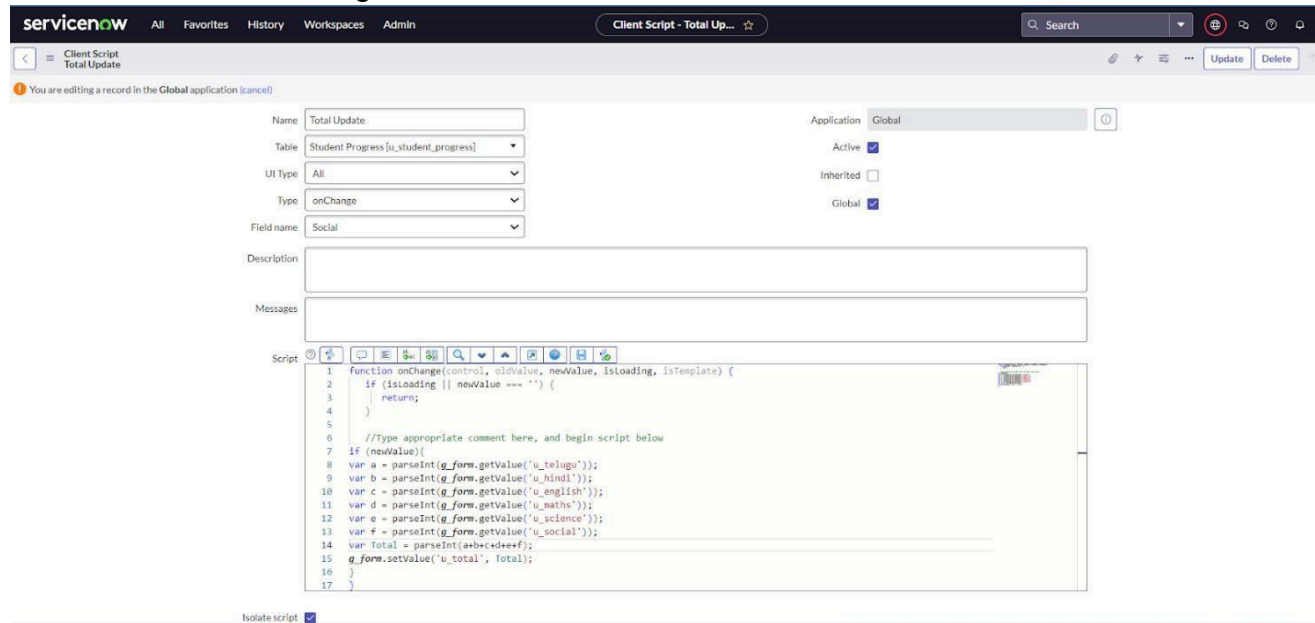
```

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);
}

```

Creating "Total Update" Client Scripts for Student progress Table

- Fill the Details as given.



The screenshot shows the ServiceNow interface for configuring a Client Script. The breadcrumb trail is: Client Script - Total Up... The page title is 'Client Script - Total Update'. A notification at the top states: 'You are editing a record in the Global application (cancel)'. The configuration fields are as follows:

- Name:** Total Update
- Table:** Student Progress [u_student_progress]
- UI Type:** All
- Type:** onChange
- Field name:** Social
- Application:** Global
- Active:** ☒
- Inherited:** ☐
- Global:** ☒

Below these fields are empty text areas for 'Description' and 'Messages'. The 'Script' section 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   if (newValue) {
8     var a = parseInt(g_form.getValue('u_telugu'));
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_maths'));
12    var e = parseInt(g_form.getValue('u_science'));
13    var f = parseInt(g_form.getValue('u_social'));
14    var Total = parseInt(a+b+c+d+e+f);
15    g_form.setValue('u_total', Total);
16  }
17 }
  
```

At the bottom, there is a checkbox labeled 'Isolate script' which is currently checked.

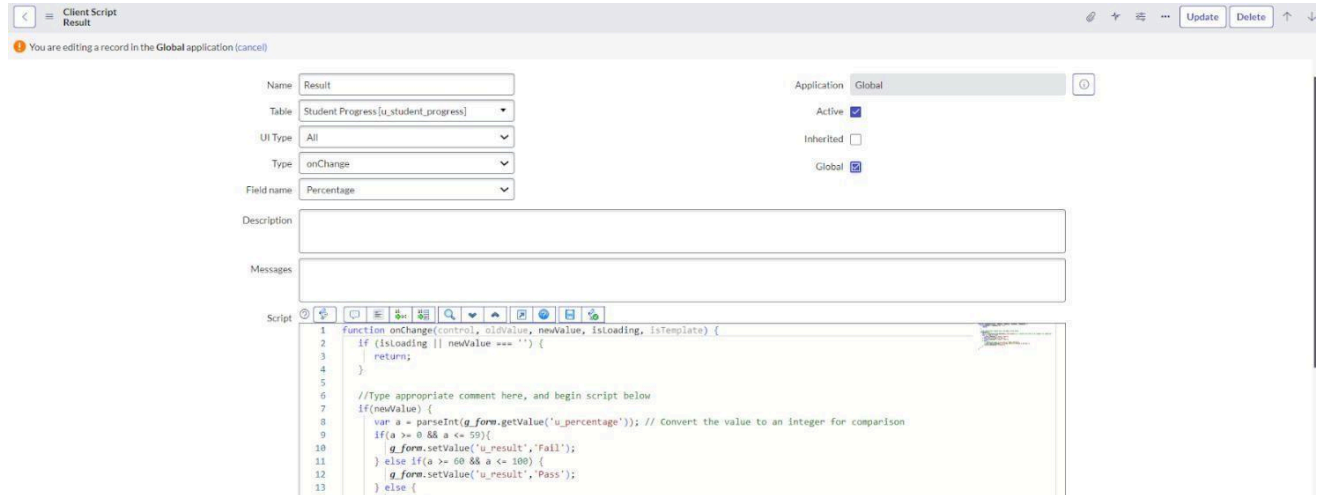
- Write the Code as below, Enable Isolate script and Save.

```

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.



The screenshot shows the 'Client Script' editor for a field named 'Result'. The field is associated with the 'Student Progress [u_student_progress]' table and has a 'Percentage' field name. The script is set to trigger on 'onChange'. The script content is as follows:

```

1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2   if (isLoading || newValue === '') {
3     return;
4   }
5   //Type appropriate comment here, and begin script below
6   if(newValue) {
7     var a = parseInt(g_form.getValue('u_percentage')); // Convert the value to an integer for comparison
8     if(a >= 0 && a <= 59){
9       g_form.setValue('u_result', 'Fail');
10    } else if(a >= 60 && a <= 100) {
11      g_form.setValue('u_result', 'Pass');
12    } else {
13      // Handle the case if a is out of range (optional)
14      g_form.addErrorMessage('Percentage should be between
  
```

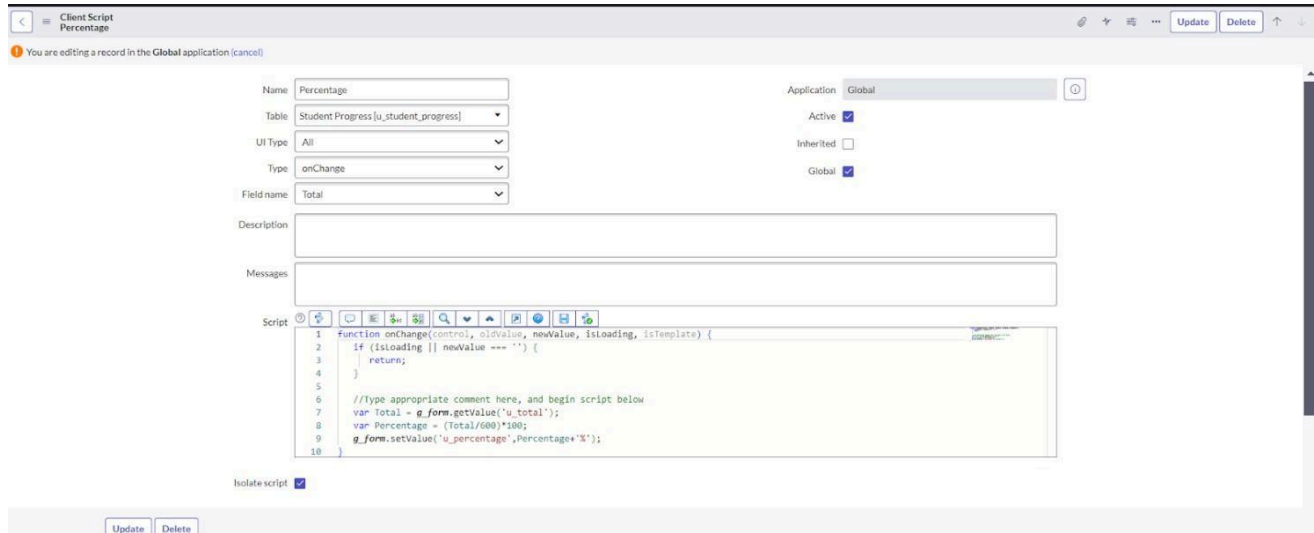
- Write the Code as below, Enable Isolate script and Save.

```

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.');
```

Creating "Percentage" Client Scripts for Student progress Table

- Fill the Details as given.



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

- Name:** Percentage
- Table:** Student Progress [u_student_progress]
- UI Type:** All
- Type:** onChange
- Field name:** Total
- Application:** Global
- Active:** ☒
- Inherited:** ☐
- Global:** ☒
- Description:** (Empty text area)
- Messages:** (Empty text area)
- 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:** ☒

At the bottom of the window, there are 'Update' and 'Delete' buttons.

- 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

Now we can see Our entire project results in All >> Salesforce

Salesforce
New record

Admin Number

Admin Date

Grade -- None --

Student Name

Father Name

Mother Name

Mother Cell

Father Cell

Submit

Admission
New record

New
In progress
Joined
Rejected
Rejoined
Closed
Cancelled

Admission Number

Purpose of join -- None --

Student Name

Father Name

Mother Name

Comments

Admin Date

Grade -- None --

Fee \$ 0.00

Father Cell

Mother Cell

Admin Status -- None --

School Details
Address

School Area -- None --

School -- None --

Submit

New Section
New record

Admission Number

Grade -- None --

Student Name

Father Name

Mother Name

Father Cell

Mother Cell

Student Progress

Telugu

Hindi

English

Maths

Science

Social

Total

Percentage

Result

Submit

CONCLUSION

Now we have successfully created an Educational Organisation using ServiceNow by following the instructions given by the Service Now Team.

Thank you