

# **M.A.M COLLEGE OG ENGINEERING**

**PROJECT NAME: Educational Organisation Using ServiceNow**

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## Educational Organisation Using ServiceNow

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

- 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

1. Click on All >> Local update sets .

The screenshot shows the ServiceNow App Engine Studio interface. At the top, there is a search bar with the text "local update sets". Below the search bar, there is a sidebar with sections for "FAVORITES" (No Results) and "ALL RESULTS" (System Update Sets, Local Update Sets). The "Local Update Sets" option is highlighted. The main area features a dark background with a rocket launching into space illustration. A "Let's Go" button is visible at the bottom left. A "Go Further" link is at the bottom right.

2. Click on new

The screenshot shows the ServiceNow Update Sets list view. The top navigation bar includes "Update Sets" and a "New" button. Below the navigation, there is a search bar and a "Actions on selected rows..." dropdown menu with a red arrow pointing to it. The main table lists two update sets: "Default" (Application: App Engine Studio, State: In progress, Created: 2024-04-03 04:32:28, Created by: admin, Parent: (empty), Batch Base: (empty)) and "Default" (Application: Global, State: In progress, Created: 2023-10-06 15:26:30, Created by: system, Parent: (empty), Batch Base: (empty)).

Name	Application	State	Installed from	Created	Created by	Parent	Batch Base
Default	App Engine Studio	In progress	Search	2024-04-03 04:32:28	admin	(empty)	(empty)
Default	Global	In progress	Search	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 a ServiceNow application window titled "Update Set - Create New Update Set". The "Name" field is filled with "New Update Set". The "State" dropdown is set to "In progress". The "Parent" and "Release date" fields are empty. The "Description" field is also empty. At the bottom, there are two buttons: "Submit" and "Submit and Make Current".

### 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 .

X

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 .

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

## 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

The screenshot shows the ServiceNow 'Table - New Record' interface. At the top, there are tabs for All, Favorites, History, Workspaces, and Admin. Below the tabs, it says 'Table New record'. There are two informational messages: one about creating scoped applications and another about annotations. The main form has fields for Label ('Admission'), Name ('u\_admission'), Application ('Global'), Create module (checkbox checked), Create mobile module (checkbox checked), and Add module to menu ('Salesforce'). The 'Extends table' field contains 'Salesforce' and is highlighted with a red box. The 'Add module to menu' dropdown is also highlighted with a red box. At the bottom, there are 'Submit' and 'Cancel' buttons. A modal window titled 'Dictionary Entries' is open, showing a table with columns: Column label, Type, Reference, Max length, Default value, and Display. The 'Display' column for the first row has a checkbox checked, which is also highlighted with a red box.

Table: Admission

Columns Controls Application Access

Table Columns for text Search

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 view

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

Label Search Actions on selected rows... New

Choices

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:

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

Label Search Actions on selected rows... New

Choices

Label	Value	Language	Sequence	Inactive	Updated
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

- Create choice for Purpose of Join as:

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

Label Search Actions on selected rows... New

Choices

Label	Value	Language	Sequence	Inactive	Updated
Tution	Tution	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

- Create choice for School as:

Choices						
Access Controls		Choices (2)	Attributes	Labels (1)	Dictionary Overrides	
		Label	Value	Language	Sequence	Inactive
		Stanley	Stanley	en	1	false
		Naresh IT	Naresh IT	en	2	false

- Create choice for School Area as:

Choices						
Access Controls		Choices (2)	Attributes	Labels (1)	Dictionary Overrides	
		Label	Value	Language	Sequence	Inactive
		Near Market	Near Market	en	1	false
		Near Bus Stand	Near Bus Stand	en	2	false

## Creating Student Progress Table

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

X	Admission Number	Reference	Salesforce	32	false
X	English	String	(empty)	40	false
X	Hindi	String	(empty)	40	false
X	Maths	String	(empty)	40	false
X	Percentage	String	(empty)	40	false
X	Result	String	(empty)	40	false
X	Science	String	(empty)	40	false
X	Social	String	(empty)	40	false
X	Telugu	String	(empty)	40	false
X	Total	String	(empty)	40	false

## Configuring Table form for Student Progress Table

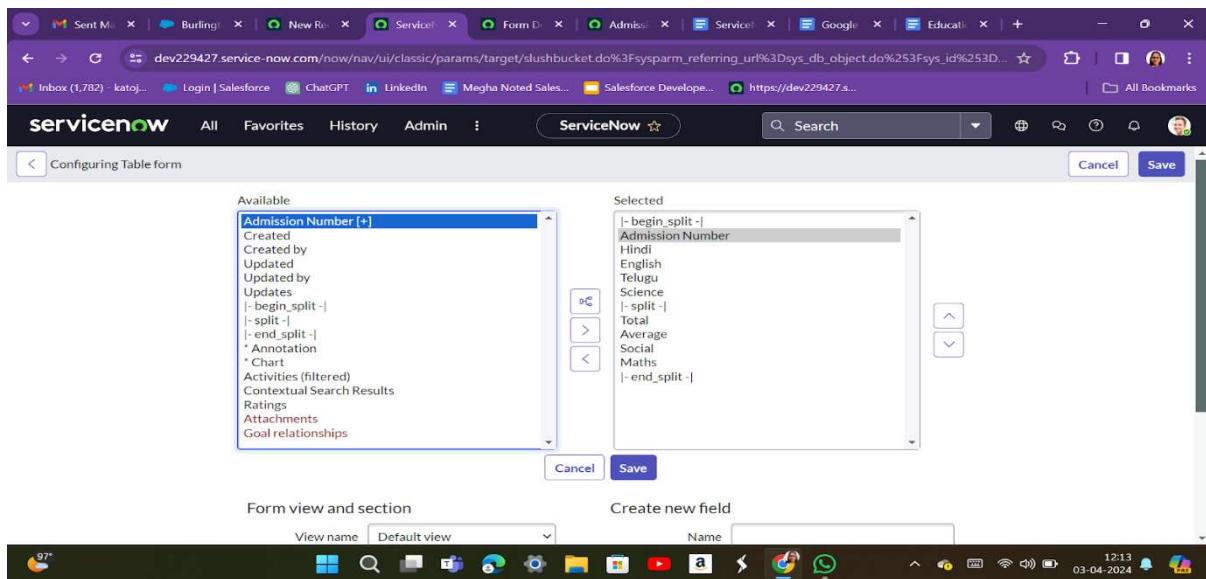
- In the Student Progress Table Page , Click on Layout form .

Table student progress					
X	Telugu	String	(empty)	40	
X	Total	String	(empty)	40	
+	Insert a new row...				

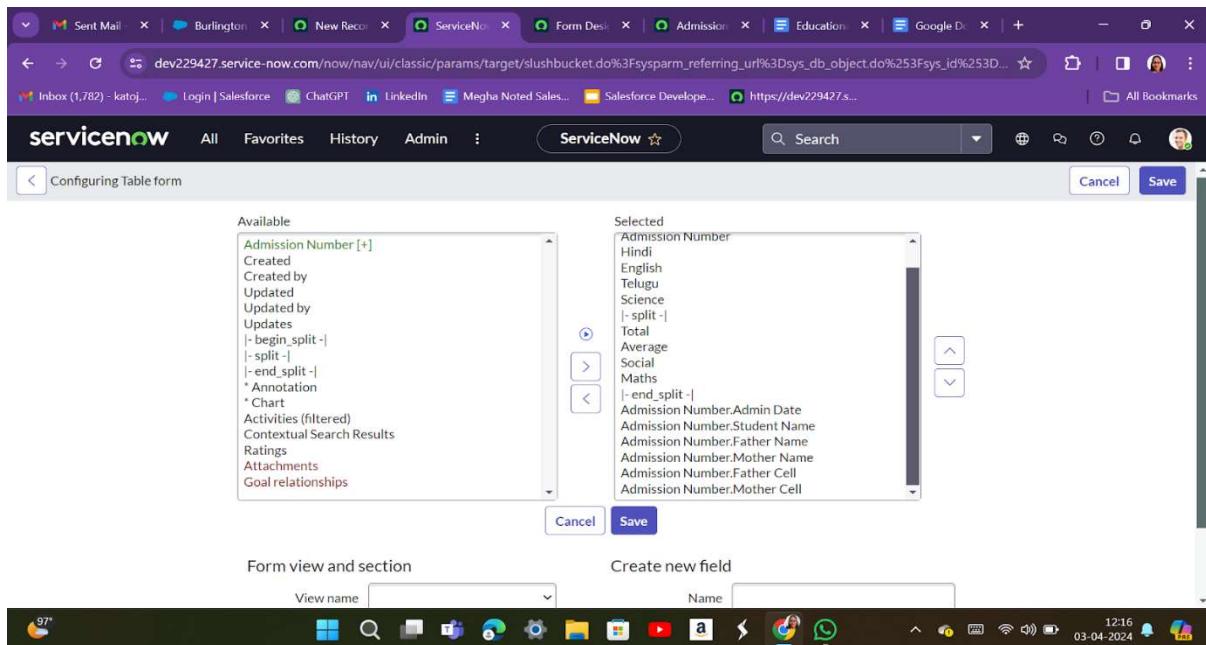
Related Links

[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.



## Creating Form Design for Salesforce Table

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

The screenshot shows the ServiceNow Tables interface. In the search bar at the top, the word "salesforce" is typed, highlighted with a red arrow. Below the search bar, a table lists several records. The first record has "Label" set to "salesforce" and "Name" set to "u\_salesforce".

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

The screenshot shows the "Table - Salesforce" screen. A context menu is open over the "Name" field of the first record. The menu includes options like "Save", "Analyze Access", "Show File Properties", and "Configure". The "Configure" option is expanded, showing "Form Design" as one of the sub-options, which is highlighted with a red arrow.

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

The screenshot shows the "Form Design" screen. On the left, there is a sidebar with a dropdown menu. The "Salesforce(u\_salesforce)" option is highlighted with a red arrow. The main area of the screen shows a form builder interface with various fields and controls.

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

Form Design

Fields

Fields

Filter

Fields

Class

Created

Created by

Updated

Updated by

Updates

Formatters

Activities (filtered)

Contextual Search Results

Ratings

Salesforce [u\_salesforce]

2 Column

Admin Number

Admin Date

Grade

Student Name

Father Name

Mother Name

Father Cell

Mother Cell

Undo

Save

6.Save.

## Creating Form Design for Admission Table

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

Form Design

Fields

Fields

Filter

Fields

Class

Created

Created by

Updated

Updated by

Updates

Formatters

Activities (filtered)

Contextual Search Results

Ratings

Admission [u\_admission]

1 Column

Process Flow (Formatted)

Comments

School Details

School Area

Address

Postcode

Mantel

House No

Admin Data

Grade

Fee

Father Cell

Mother Cell

Admin Status

School

Area

City

District

Comments

Undo

Save

## Creating Form Design for Student progress Table

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

Form Design

Fields

Fields

Filter

Fields

Class

Created

Created by

Social

Updated

Updated by

Updates

Formatters

Activities (filtered)

Contextual Search Results

Ratings

Student Progress [u\_stude]

1 Column

New Section

Admission Number

Admission Number Grade

Admission Number Student Name

Admission Number Father Name

Admission Number Mother Name

Admission Number Father Cell

Admission Number Mother Cell

2 Column

Student Progress

Telugu

Hindi

English

Maths

Science

Total

Percentage

Result

Undo

Save

## Creating Number Maintenance for Admin Number

- All >> Number Maintenance >> New

The screenshot shows a ServiceNow search interface for 'Table - Salesforce'. The search bar contains 'number'. The results list shows 'Number Maintenance' as the first item under 'System Definition'. A red box highlights this entry, and a red arrow points to it from the left.

	Reference	Max length	Default value	Display
Class Name	(empty)	80	javascript:current.getTableName();	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

- Fill the details >> Submit.

The screenshot shows a ServiceNow form titled 'Number - SAL'. The form fields are as follows:

- \* Table: Salesforce
- Prefix: SAL
- \* Number: 1.000
- Application: Global
- Number of digits: 7

Buttons at the bottom include 'Update' and 'Delete'.

## Creating Process Flow for Admission Table

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

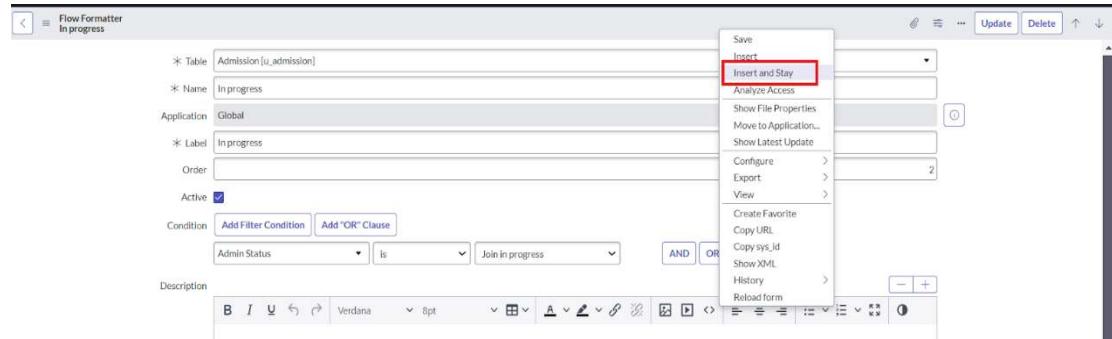
The screenshot shows a ServiceNow form titled 'Flow Formatter New' for the 'Admission [u\_admission]' table. The form fields are:

- \* Table: Admission [u\_admission]
- \* Name: New
- Application: Global
- \* Label: New
- Order:
- Active:
- Condition: Admin Status Is New
- Description: (Rich Text Editor)

A context menu is open on the right side of the screen, with 'Save' highlighted. Other options in the menu include Insert, Analyze Access, Show File Properties, Move to Application, Show Latest Update, Configure, Export, View, Create Favorite, Copy URL, Copy sys\_id, Show XML, History, and Reload form.

- 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

- All >> Client Scripts >> New.
- 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 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);

}

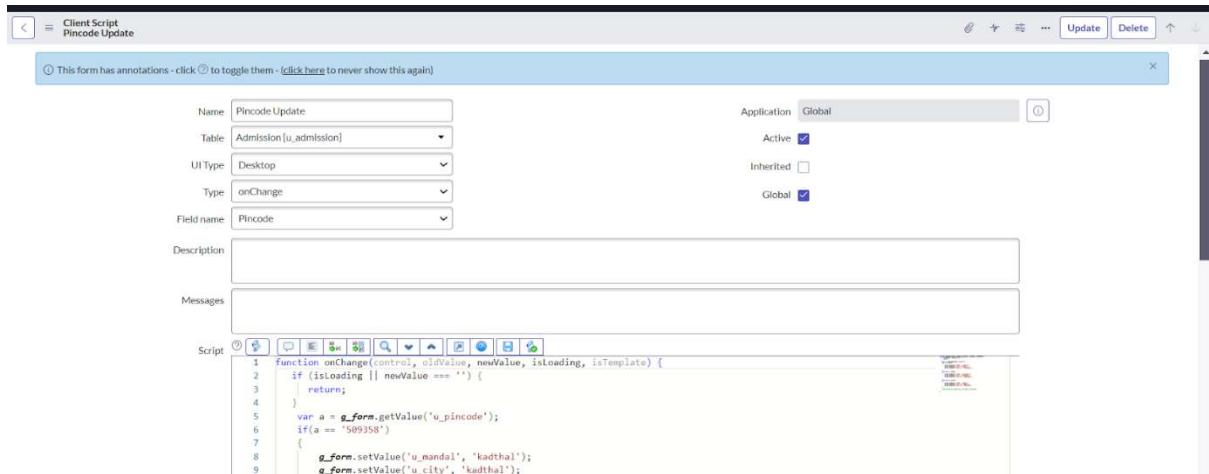
}

```

**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.

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

Name: Disable Fields  
Table: Student Progress [u\_student\_progress]  
UI Type: All  
Type: onLoad

Application: Global  
Active:   
Inherited:   
Global:

Description:

Messages:

```

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.

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

Name: Total Update  
Table: Student Progress [u\_student\_progress]  
UI Type: All  
Type: onChange  
Fieldname: Social

Application: Global  
Active:   
Inherited:   
Global:

Description:

Messages:

```

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));
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) {
```

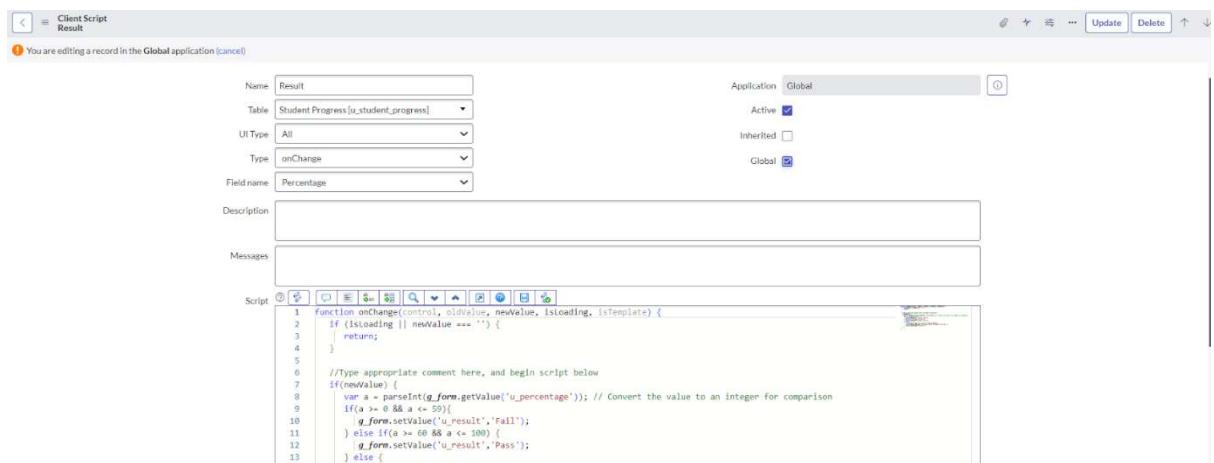
```
if (isLoading || newValue === "") {  
    return;  
}  
}
```

//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);  
  
}  
  
}
```

## 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');

    }

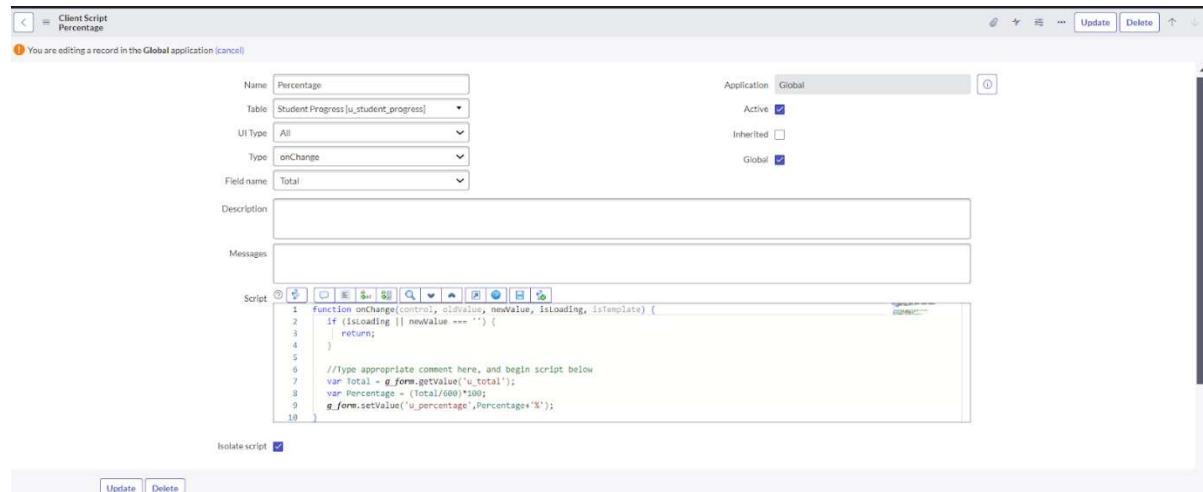
}

}

```

### 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+'%');

}

```

## Result

The image displays three screenshots of a Salesforce form interface, likely a custom object or a combination of objects. The top screenshot shows a basic form with fields for Admin Number, Admin Date, Grade, Student Name, Father Name, Mother Name, Mother Cell, and Father Cell. The middle screenshot shows an 'Admission' form with a status bar at the top indicating 'New', 'In progress', 'Joined', 'Rejected', 'Rejoined', 'Closed', and 'Cancelled'. It includes fields for Admission Number, Purpose of Join, Student Name, Father Name, Mother Name, Admin Date, Grade, Fee, Father Cell, Mother Cell, and Admin Status. The bottom screenshot shows a 'New Section' form with fields for Admin Number, Grade, Student Name, Father Name, Mother Name, Father Cell, and Mother Cell. Below these forms is a 'Student Progress' section containing fields for Telugu, Hindi, English, Maths, Science, Social, Total, Percentage, and Result.