

Educational Organization Using ServiceNow

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Team Size : 4

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Problem statement :

Managing educational organization data (students, staff, courses, subjects, and activities) is complex and requires automation. Manual processes often lead to inefficiencies and errors. ServiceNow provides a platform to simplify and optimize these

Objective :

To design and implement a ServiceNow-based solution that streamlines educational organization processes by setting up custom tables, forms, flows, and scripts.

Skills:

ServiceNow Administration

Table & Form Design

Update Set Management

Number Maintenance

Process Automation using Flow Designer

Client-side Scripting (Client Scri



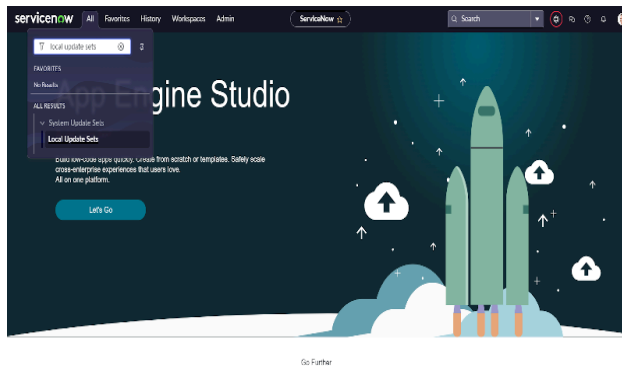
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Setting up ServiceNow Instance

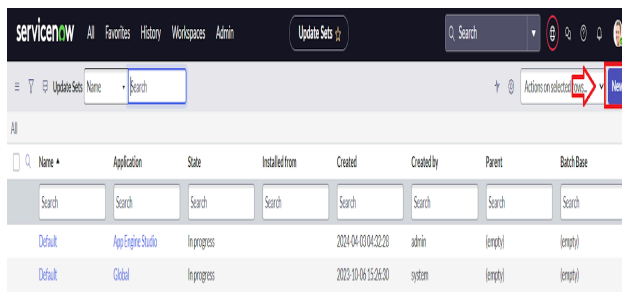
1. Sign up for a developer account on the ServiceNow Developer site "<https://developer.servicenow.com>".
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.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

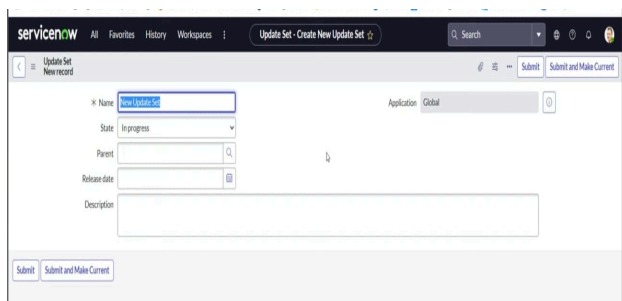
1. Click on All >> Local update sets .



2. Click on New



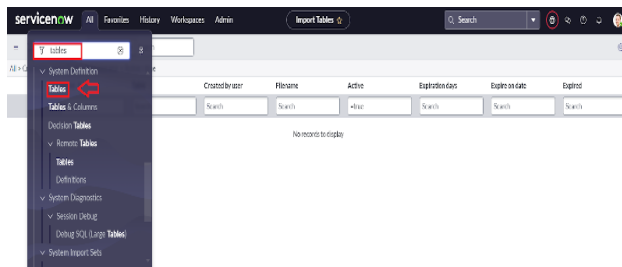
3. Enter the Details Name: Educational Organisation >> Click on Submit and make Current



Createing a table

Creating Salesforce Table.

1.All >> Tables.



2.Click on New

Label	Name	Extends table	Extensible	Updated
Adaptive Authentication Event	adaptive_auth_event	(empty)	false	2024-03-29 07:46:29
Agent Assist Recommendation	agent_assist_recommendation	ApplicationFile	false	2023-10-06 15:44:09
MDI Server File	agent_file	(empty)	false	2023-10-06 15:29:08
Record Produce Configuration	aijs.js.config	ApplicationFile	false	2023-10-06 15:47:19
Search Actions	aijs_ui.action	ApplicationFile	false	2023-10-06 15:47:19
AI Search ACL Overrides	aijs_acl.overrides	ApplicationFile	false	2023-10-06 15:15:20
AI Search Active Table Ingestion Tracker	aijs_active_table_ingestion_tracker	(empty)	false	2023-10-06 15:15:18

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

Table - New Record

Label:

Name:

Extends table:

Application:

Create module:

Create module module:

Add module to menu:

New menu name:

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

Table - New Record

Columns

Table Columns

Column label:

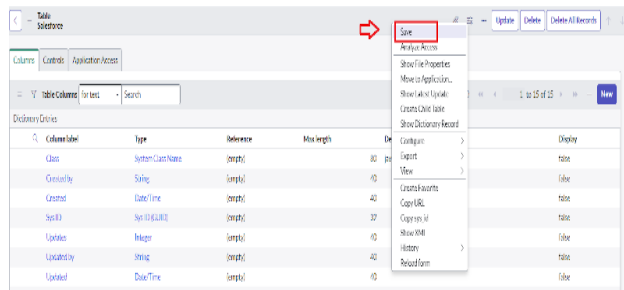
Type:

Reference:

Max length:

Admin Date	Admin Number	Father Call	Father Name	Grade	Mother Call	Mother Name	Student Name
Date	String	String	String	Choice	String	String	String
(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)	(empty)
40	40	40	40	40	40	40	40
false	true	false	false	false	false	false	false

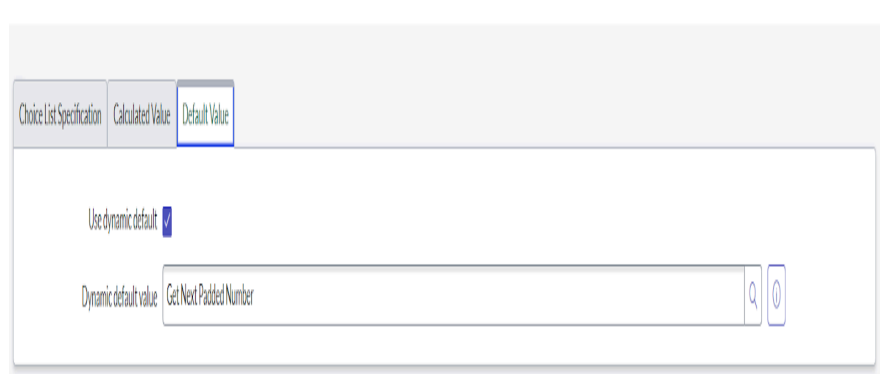
5.For “Admin Number” Give Display as True and right click on the toggle bar on top >> save.



6.Click on controls >> Enable Extensible.



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



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

Label	Value	Language	Sequence	Inactive	Updated
First	First	en	1	false	2024-04-02 12:13:36
Second	Second	en	2	false	2024-04-02 12:13:40
Third	Third	en	3	false	2024-04-02 12:13:43
Fourth	Fourth	en	4	false	2024-04-02 12:13:46
Fifth	Fifth	en	5	false	2024-04-02 12:13:50
Sixth	Sixth	en	6	false	2024-04-02 12:13:53
Seventh	Seventh	en	7	false	2024-04-02 12:13:56
Eighth	Eighth	en	8	false	2024-04-02 12:13:59
Ninth	Ninth	en	9	false	2024-04-02 12:14:02
Tenth	Tenth	en	10	false	2024-04-02 12:14:05
Eleventh	Eleventh	en	11	false	2024-04-02 12:14:08
Twelfth	Twelfth	en	12	false	2024-04-02 12:14:11
Thirteenth	Thirteenth	en	13	false	2024-04-02 12:14:14

Creating Admission Table

1. Create an Admission Table with Columns given. Select Extends Table >> Salesforce and also Select Add module to menu >>

2. Salesforce.

3. Create Fields as shown

Table: Admission

Columns: Label, Value, Language, Sequence, Inactive, Updated

Fields:

- Label: Admission
- Value: Admission
- Language: en
- Sequence: 1
- Inactive: false
- Updated: 2024-04-02 12:13:36

4. Create choice for Admin Status as:

Label	Value	Language	Sequence	Inactive	Updated
Open	Open	en	1	false	2024-04-02 12:13:36
In Progress	In Progress	en	2	false	2024-04-02 12:13:40
Admitted	Admitted	en	3	false	2024-04-02 12:13:43
Rejected	Rejected	en	4	false	2024-04-02 12:13:46
Closed	Closed	en	5	false	2024-04-02 12:13:49
Cancelled	Cancelled	en	6	false	2024-04-02 12:13:52
Completed	Completed	en	7	false	2024-04-02 12:13:55



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5.Create choice for Pincode as:

Access Controls

Choices(3)

Attributes

Labels(1)

Dictionary Overrides

=

Label

Search

⊞

Actions on selected rows...

New

Choices

<div><div>⊞</div><div>Label</div></div>	Value	Language	Sequence	Inactive	Updated
<div><div>⊞</div><div>509558</div></div>	509558	en		1 false	2024-04-02 21:15:19
<div><div>⊞</div><div>500079</div></div>	500079	en		2 false	2024-04-02 21:15:46
<div><div>⊞</div><div>500081</div></div>	500081	en		3 false	2024-04-02 21:16:05
<div><div>+</div><div>Insert a new row...</div></div>					

6.Create choice for Purpose of Join as:

Access Controls

Choices(3)

Attributes

Labels(1)

Dictionary Overrides

≡

T

Label

Search

⛔

Actions on selected rows...

New

Choices

Q

Label

Value

Language

Sequence

Inactive

Updated

Tuition

Tuition

en

1

false

2024-04-02 21:17:59

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...

7.Create choice for School as:

Access Controls

Choices(2)

Attributes

Labels(1)

Dictionary Overrides

≡

Label

Search

⌕

Actions on selected rows...

New

Choices

<div><div>⌕</div></div> 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
<div><div>+</div><div>Insert a new row...</div></div>					

8.Create choice for School Area as:

Access Controls

Choices(2)

Attributes

Labels(1)

Dictionary Overrides

≡

Label

Search

⌕

Actions on selected rows...

New

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

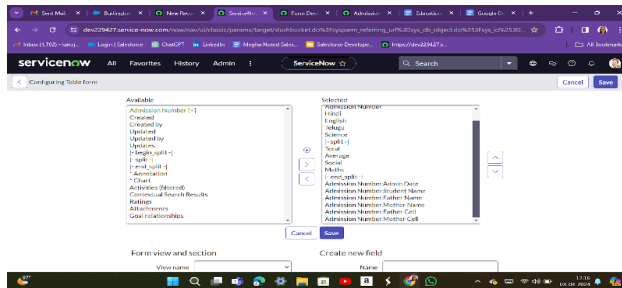
+

Insert a new row...



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

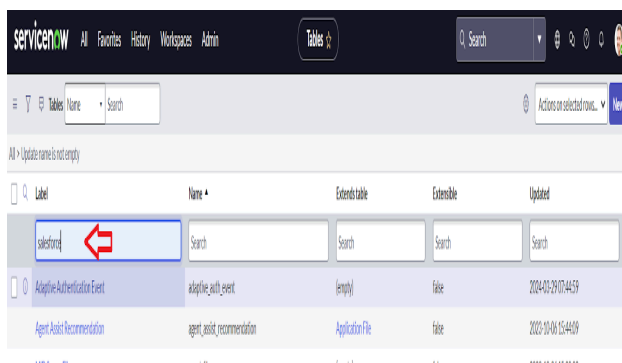


Form Design

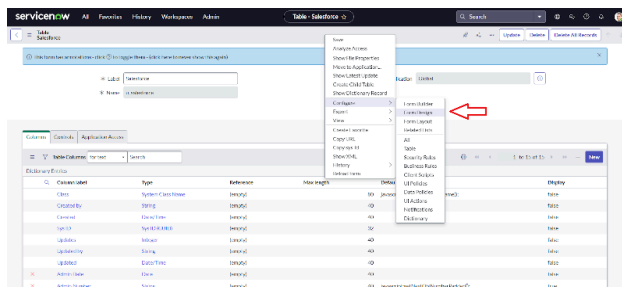
Creating Form Design for Salesforce Table

1.All >> System Definition >> Tables .

2.In Label Search for Salesforce and open .



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



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4. In drop down select Salesforce(u_salesforce).



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



6. Save.

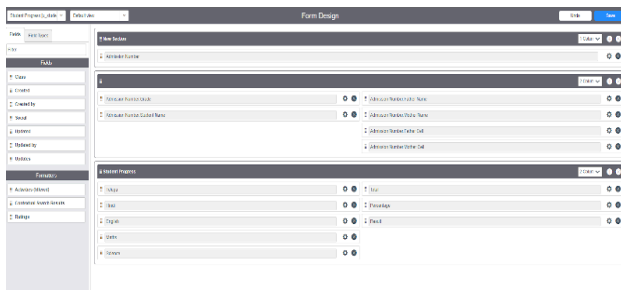
Creating Form Design for Admission Table

1.Follow the same steps as Activity 1,Configure the fields as below and Save.



Creating Form Design for Student progress Table

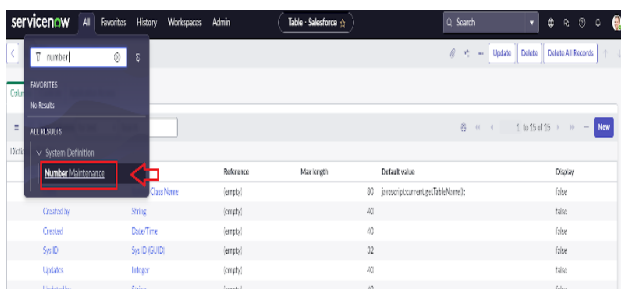
1.Follow the same steps as Activity 1,Configure the fields as below and Save.



Number Maintenance

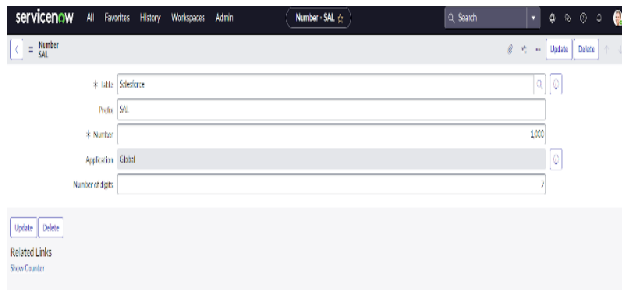
Creating Number Maintenance for Admin Number

1.All >> Number Maintenance >> New



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2.Fill the details >> Submit.

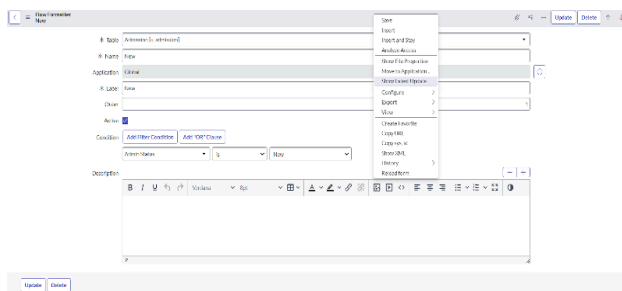


Process Flow

Creating Process Flow for Admission Table

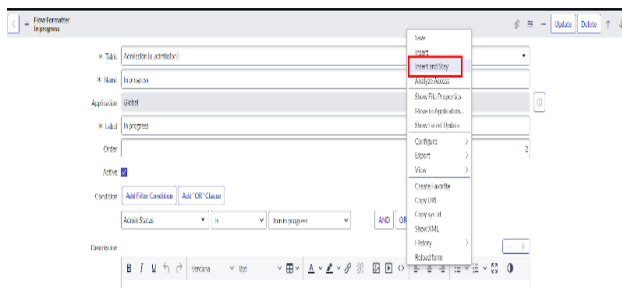
1.All >> Process Flow>> New.

2.Fill the Details as given Below



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

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



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

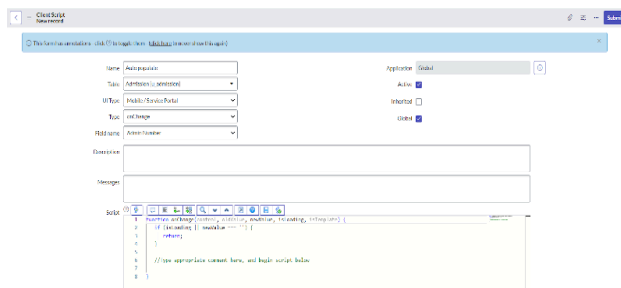
6. Joined >> Rejected >> Rejoined >> Closed >> Cancelled.

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

Client Script

1. All >> Client Scripts >> New.

2. Fill the Details as given.



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

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

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

```
        return;
```

```
    }
```

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

```
var a = g_form.getReference('u_admission_number');
```

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

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

```
g_form.setValue('u_student_name', a.u_student_name);
```

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



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```

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);

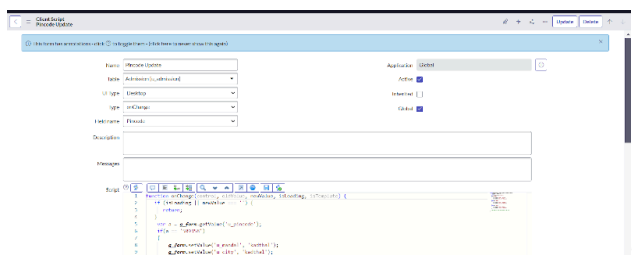
}

```

Note: Make sure the Field names should be the same as you created .

Creating “Pincode Update” Client Scripts for Admission Table

1.Fill the Details as given.



2. 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');
```



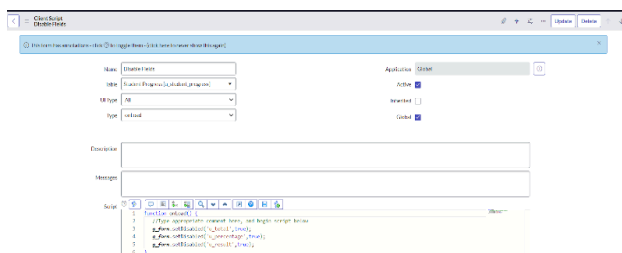
```
}
```

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

```
}
```

Creating “Disable Fields” Client Scripts for Student progress Table

1.Fill the Details as given



2.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

1.Fill the Details as given.

2.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);
```

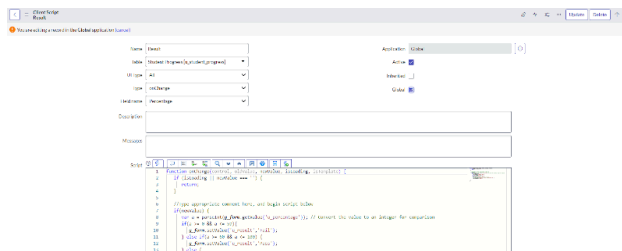
```
g_form.setValue('u_total', Total);
```

}

}

Creating “Result” Client Scripts for Student progress Table

1.Fill the Details as given.



2. 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');
```

```
}
```



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}

}

//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

A web form titled "Student New record" with a "Submit" button. The form contains the following fields:

- Admin Number: 240000000
- Admin Code: [dropdown menu]
- Grade: [dropdown menu, currently showing "None"]
- Student Name: [text input]
- Father Name: [text input]
- Mother Name: [text input]
- Mother Cell: [text input]
- Father Cell: [text input]

A web form titled "Student New record" with a progress bar at the top showing "New" (highlighted), "Progress", "Add", "School", "District", "Class", and "Certificate". Below the progress bar, the form contains the same fields as the previous screenshot, plus a "Cancel" button at the bottom left.

A web form titled "Student New record" with a "Student Progress" section. The form contains the same fields as the previous screenshots, plus a "Cancel" button at the bottom left. The "Student Progress" section includes a table with the following data:

Subject	Score
Math	100
Science	100
History	100

Conclusion:

By implementing these steps in ServiceNow, the educational organization can effectively manage student and staff data, automate workflows, and ensure accuracy and efficiency in processes. The use of Update Sets, Tables, Forms, Process Flows, and Client Scripts allows smooth customization and adaptability for academic needs.

