



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NM1051- SERVICENOW ADMINISTRATORS

REGULATION 2021



LABORATORY RECORD

This is to certify that this is a bonafide record of the work done by
Ms/Mr..... Register
Number..... in the
Laboratory in the semester.

Staff-in-charge

Head of the Department

Submitted for the University Examination held on

.....

Internal Examiner

External Examiner

EDUCATIONAL ORGANIZATION USING SERVICENOW

OBJECTIVE:

The main objective of this project is to understand and implement how ServiceNow can be used to manage and automate processes in an educational organisation. The project focuses on creating a custom application in ServiceNow that helps streamline record management, form design, and workflow automation for educational purposes.

INTRODUCTION:

ServiceNow is a cloud-based platform that provides IT service management and process and the automation solutions. Educational institutions can use ServiceNow to manage student data, staff information, requests, and other administrative processes efficiently. In this project, we develop a simple application to simulate how an educational organisation can use the ServiceNow to manage and automate its operations

MODULES/ STEPS INVOLVED:

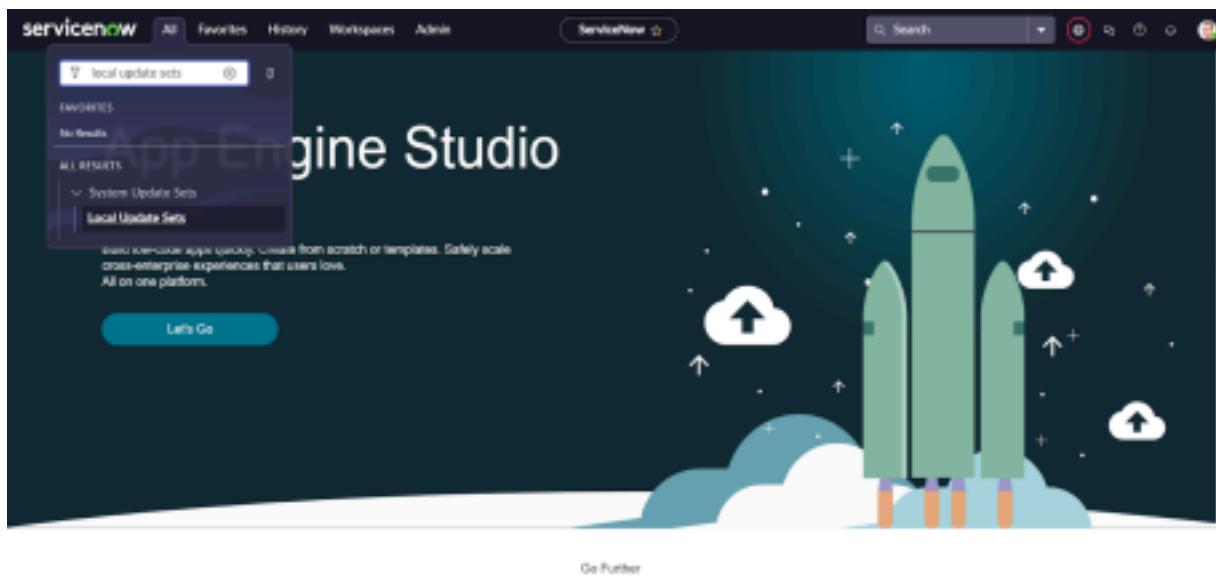
- Setting Up ServiceNow Instance
- Creating an Update Set
- Creating a Table
- Form Layout
- Form Design
- Number Maintenance
- Process Flow
- Client Script
- ResultResult

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.

Creating a Update Set:

1. Click on All >> Local update sets .



2. Click on new

A screenshot of the ServiceNow Update Sets list view. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', 'Admin', and 'Update Sets'. A search bar shows 'Update Sets' and a 'Search' button. To the right, there are filter and search buttons, and a red box highlights the 'Actions on selected sets' dropdown menu. Below is 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).

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

A screenshot of the ServiceNow Update Set - Create New Update Set form. The top navigation bar includes 'servicenow', 'All', 'Favorites', 'History', 'Workspaces', and 'Update Set - Create New Update Set'. A search bar shows 'Search'. The form fields include: Name (set to 'New Update Set'), Application (set to 'Global'), State (set to 'In progress'), Parent (empty), Release date (empty), and Description (empty). At the bottom are 'Submit' and 'Submit and Make Current' buttons.

Creating a Table:

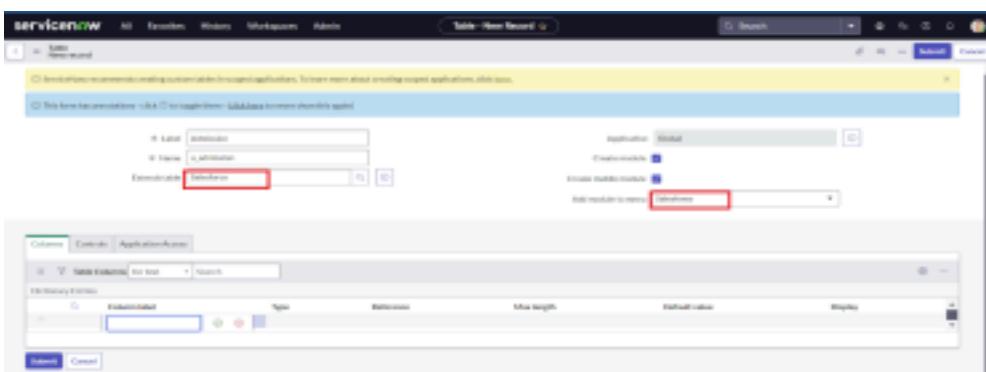
- Creating Salesforce Table
- Creating Admission Table
- Creating Student Progress Table

Creating Salesforce Table:

1. All >> Tables.
2. Click on new.
3. Enter the Label(Anything you want): Salesforce >> Click on Name it will Automatically generate Api 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 .
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 .

Creating Admission Table:

- 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



- Create choice for Admin Status as:

The screenshot shows the 'Dictionary Entries' screen in Dynamics 365. The 'Choices' tab is selected. A new choice record for 'AdminStatus' is being created, indicated by the highlighted row. The 'Label' column contains 'AdminStatus', 'Type' is 'Choice', 'Reference' is empty, 'Maxlength' is 40, 'Default value' is empty, and 'Display' is 'None'. Other columns include 'Column Label', 'Type', 'Reference', 'Maxlength', 'Default value', and 'Display'.

Column Label	Type	Reference	Maxlength	Default value	Display
SpID	String(5000)	[empty]	50	None	None
AdminStatus	Choice	[empty]	40	None	None
AdminStatusLabel	Reference	SelectFrom	25	None	None
Area	String	[empty]	40	None	None
City	String	[empty]	40	None	None
Country	String(255)H	[empty]	255	None	None
District	String	[empty]	40	None	None
Fee	Price	[empty]	20	None	None
Hours	String	[empty]	40	None	None
Model	String	[empty]	40	None	None
Pincode	Choice	[empty]	40	None	None
PurposeofJoin	Date	[empty]	40	None	None
Role	Choice	[empty]	40	None	None
SchoolArea	Choice	[empty]	40	None	None
Class	System Class Name	[empty]	30 (javascriptuncaughtexception)	None	None

- Create choice for Pincode as:

The screenshot shows the 'Dictionary Entries' screen in Dynamics 365. The 'Choices' tab is selected. A new choice record for 'Pincode' is being created, indicated by the highlighted row. The 'Label' column contains '50008', 'Value' is '50008', 'Language' is 'en', 'Sequence' is 1, 'Inactive' is 'False', and 'Updated' is '2024-04-05 23:23:19'. Other rows show '50009' and '50001' with their respective details.

Label	Value	Language	Sequence	Inactive	Updated
50008	50008	en	1	False	2024-04-05 23:23:19
50009	50009	en	2	False	2024-04-05 23:23:48
50001	50001	en	3	False	2024-04-05 23:24:05

- Create choice for Purpose of Join as:

The screenshot shows the 'Dictionary Entries' screen in Dynamics 365. The 'Choices' tab is selected. A new choice record for 'Purpose of Join' is being created, indicated by the highlighted row. The 'Label' column contains 'Tutor', 'Value' is 'Tutor', 'Language' is 'en', 'Sequence' is 1, 'Inactive' is 'False', and 'Updated' is '2024-04-05 23:57:09'. Other rows show 'Coaching' and 'Teacher' with their respective details.

Label	Value	Language	Sequence	Inactive	Updated
Tutor	Tutor	en	1	False	2024-04-05 23:57:09
Coaching	Coaching	en	2	False	2024-04-05 23:57:31
Teacher	Teacher	en	3	False	2024-04-05 23:57:51

- Create choice for School Area as:

Labels					
	Name	Type	Length	Segments	Inactive
<input type="checkbox"/>	New Market	New Market	10	1	False
<input type="checkbox"/>	New Bus Kail	New Bus Kail	10	2	False
Insert new row...					

Form Layout:

Configuring Table form for Student Progress Table:

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

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

Form Design:

- Creating Form Design for Salesforce Table
- Creating Form Design for Admission Table
- Creating Form Design for Student progress Table

Creating Form Design for Salesforce Table

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

The screenshot shows the ServiceNow 'Tables' list view. A red arrow points to the 'Label' column where the value 'Salesforce' is listed. Other tables like 'Adaptive Authentication Form' and 'Agent Lead Recommendation' are also visible.

3. Right Click on top Toggle >> Configure >> Form Design.In drop down select Salesforce(u_salesforce).

The screenshot shows the 'Salesforce' table configuration screen. A red arrow points to the 'Configure' button in the top right corner of the configuration panel. The configuration panel dropdown menu is open, showing options like 'FormBuilder', 'FormDesign', 'Relationships', and 'Dictionary'. The 'FormDesign' option is highlighted.

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



Number Maintenance:

1. All >> Number Maintenance >>

Class Name	Reference	Max length	Default value	Display
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

2. NewFill the details >> Submit.

Process Flow:

- All >> Process Flow>> New.
- Fill the Details as given BelowRight Click on toggle and click on the save.



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



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

Client Script:

- Creating “Auto populate” Client Scripts for Admission Table
- Creating “Pincode Update” Client Scripts for Admission Table
- Creating “Disable Fields” Client Scripts for Student progress Table
- Creating “Percentage” Client Scripts for Student progress Table

Creating “Auto populate” Client Scripts for Admission Table

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

```

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_percentage')); // Convert the value to an integer for comparison
9          If(a >= 0 && a <= 50){
10              g_form.setValue('u_result','Fail');
11          } else if(a >= 60 && a <= 100) {
12              g_form.setValue('u_result','Pass');
13          } else {
14      }

```

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);
```

```
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 ScriptsforAdmission 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;
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');

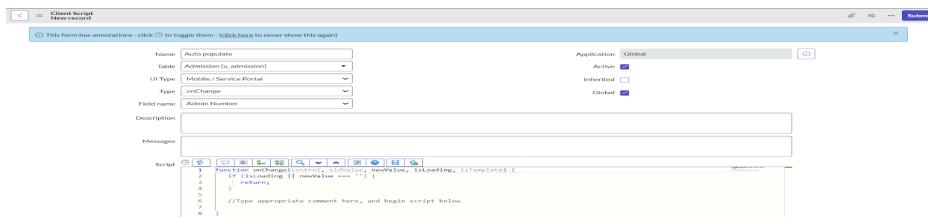
}

//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

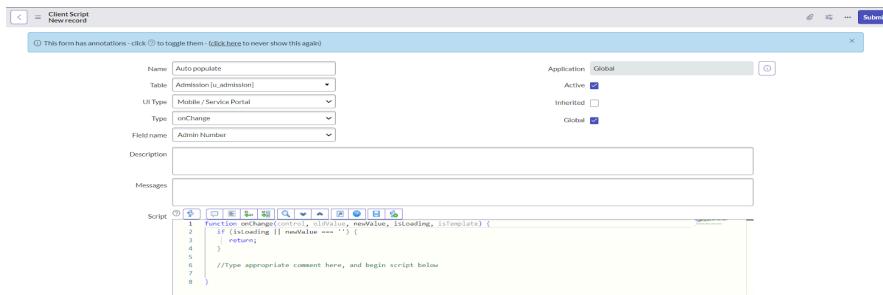
    g_form.setDisabled('u_total',true);
    g_form.setDisabled('u_percentage',true);

    g_form.setDisabled('u_result',true);

}
```

Creating “Total Update” Client Scripts for Student progress Table:

- Fill the Details as give.



- Write the Code as below, Enable Isolate script and Save.function
onChange(control, oldValue, newValue, isLoading, isTemplate) {
if (isLoading || newValue === ""){

}

//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);
```

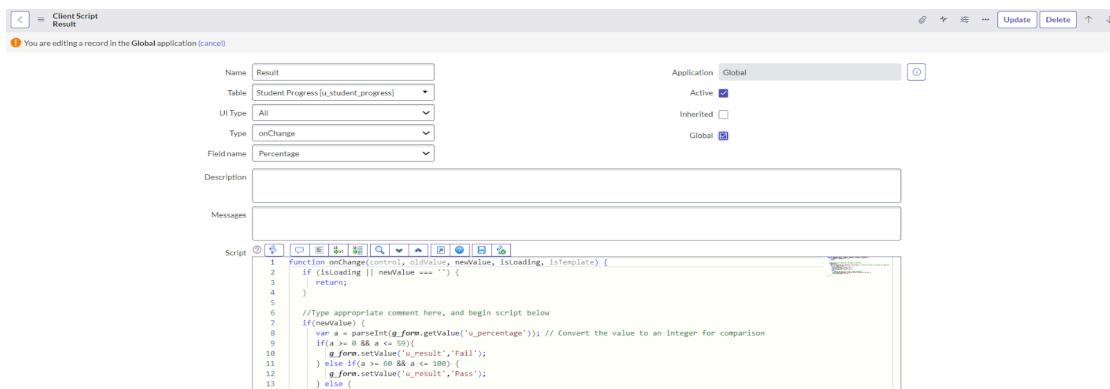
```
g_form.setValue('u_total', Total);
```

```
}
```

```
}
```

Creating “Result” Client Scripts for Student progress Table:

- Fill the Details as given.



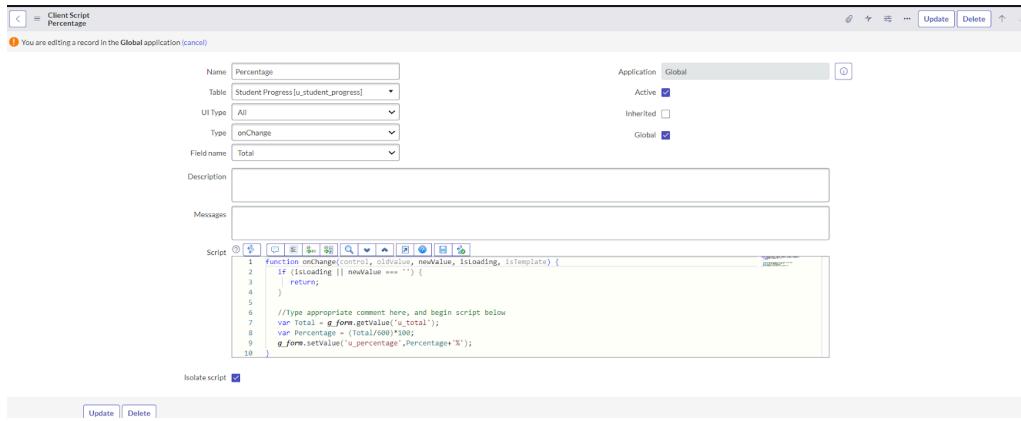
- Project Workspace

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:

Salesforce New record

Admin Number	SAL0001078	Father Name	<input type="text"/>
Admin Date	<input type="text"/>	Mother Name	<input type="text"/>
Grade	--None--	Mother Cell	<input type="text"/>
Student Name	<input type="text"/>	Father Cell	<input type="text"/>

Admission New record

New In progress Joined Rejected Rejoined Closed Cancelled

Admission Number	<input type="text"/>	Admin Date	<input type="text"/>
Purpose of join	--None--	Grade	--None--
Student Name	<input type="text"/>	Fee	\$ <input type="text"/> 0.00
Father Name	<input type="text"/>	Father Cell	<input type="text"/>
Mother Name	<input type="text"/>	Mother Cell	<input type="text"/>
Comments	<input type="text"/>		
School Details	Address	School Area	<input type="text"/>
		School	--None--

New Section New record

Admission Number	<input type="text"/>	Father Name	<input type="text"/>
Grade	--None--	Mother Name	<input type="text"/>
Student Name	<input type="text"/>	Father Cell	<input type="text"/>
		Mother Cell	<input type="text"/>

Student Progress

Telugu	<input type="text"/>	Total	<input type="text"/>
Hindi	<input type="text"/>	Percentage	<input type="text"/>
English	<input type="text"/>	Result	<input type="text"/>
Maths	<input type="text"/>		
Science	<input type="text"/>		
Social	<input type="text"/>		

CONCLUSION:

This project successfully demonstrates how ServiceNow can be implemented to automate and streamline various processes within an educational organization. By creating custom tables, forms, and workflows, the system efficiently manages student admissions, progress tracking, and administrative data. The use of client scripts further enhances functionality by enabling dynamic updates and validations, improving the overall user experience.

Through this project, we have learned how ServiceNow's powerful tools and features can be customized to meet specific institutional needs, resulting in improved efficiency, accuracy, and transparency in managing educational operations.