LATHA MATHAVAN ENGINEERING COLLEGE

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Subject Name : ServiceNow Administrator (NM1051)

Project Title : Educational Organisation Using ServiceNow

Team ID: NM2025TMID01954

TeamMembers

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Educational Organisation Using ServiceNow

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1. Objective

- The objective of this project is to develop an **Educational Management System** using **ServiceNow** to automate and simplify the key administrative processes of educational institutions. The system aims to enhance productivity by managing student and teacher data, streamlining admissions, and monitoring academic progress through a centralized and user-friendly interface.

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2. Introduction

- Educational institutions often face challenges in managing large volumes of student and staff information, handling admissions, and tracking performance. Manual systems can lead to errors, data redundancy, and inefficiency.
- This project introduces an **Educational Management System** built on the **ServiceNow platform**, leveraging its powerful automation and workflow management capabilities. The system is designed to ensure seamless data integration, real-time updates, and secure access to educational records. Additionally, the integration of **TensorFlow** enables data-driven insights and predictive analytics to support better decision-making and performance analysis.

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3. Project Scope

The scope of this project includes the development and deployment of a digital management system for educational organizations with the following modules:

- **Student Information Management:** Securely store, update, and access student details.
- **Teacher Management:** Maintain records of faculty members, schedules, and teaching activities.
- **Admission Management:** Simplify and automate the admission and enrollment process.
- **Academic Progress Monitoring:** Track student grades, attendance, and performance trends.
- **Notifications & Reporting:** Automate alerts and generate performance reports.
- **Analytics Module (TensorFlow):** Implement AI-based analysis for predicting student outcomes and optimizing learning strategies.

The project will be implemented within the ServiceNow environment, ensuring scalability, reliability, and role-based access control.

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4. Tools and Technologies Used

Category	Tools / Technologies
Platform	ServiceNow
ServiceNow	ServiceNow Cloud platform for workflow automation
Update Sets	To capture and move customizations
Tables & Fields	Used to store expense records
Forms & Lists	For user interaction and record display
Reports Module	For data visualization and analytics
Other Tools	ServiceNow Flow Designer, Service Catalog, Workflow Editor

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5. System Requirements

Hardware Requirements

- Processor: Intel Core i5 or above
- RAM: Minimum 8 GB
- Hard Disk: 500 GB or higher
- Network: Stable Internet connection

Software Requirements

- Operating System: Windows 10 / Linux / macOS
- Web Browser: Google Chrome / Mozilla Firefox
- ServiceNow Developer Instance
- ServiceNow Account & Studio

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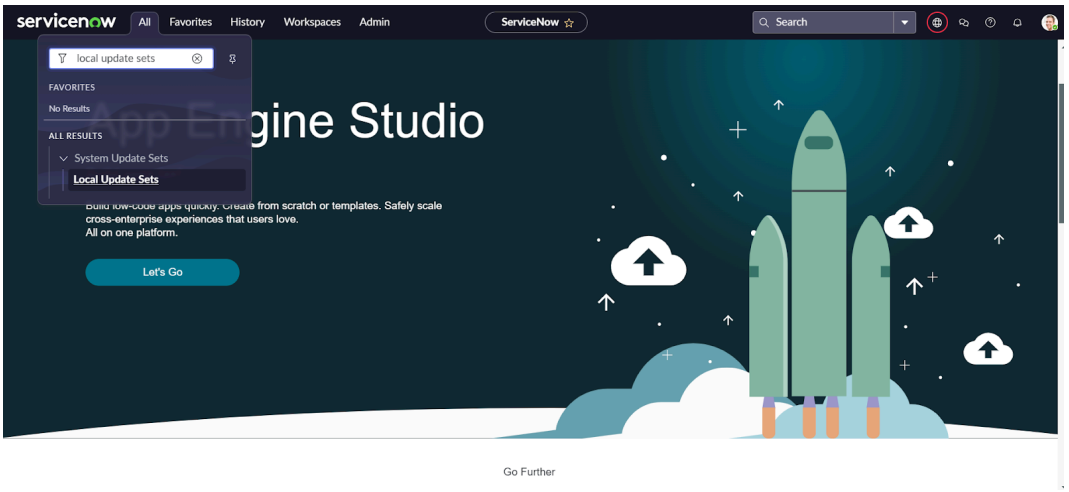
6. Project Implementation Steps

Step 1: Setting up ServiceNow Instance

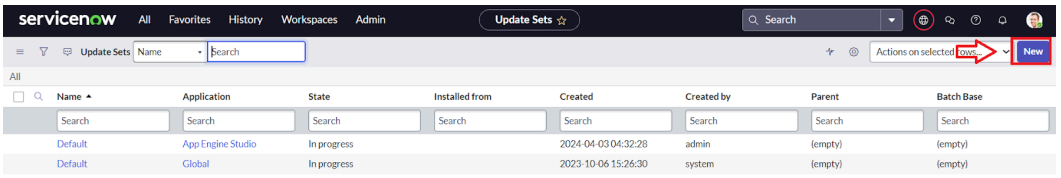
1. Sign up for a developer account on the ServiceNow Developer site “https://developer.servicenow.com”.
2. Once logged in, navigate to the "Personal Developer Instance" section.
3. Click on "Request Instance" to create a new ServiceNow instance.
4. Fill out the required information and submit the request.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

Step 2: Creating a Update Set

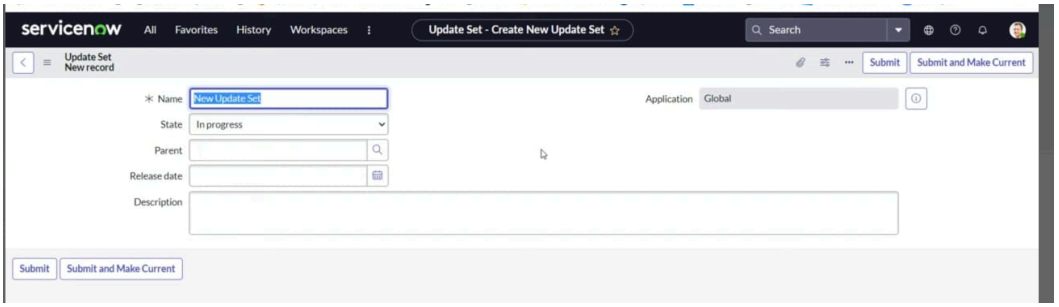
1. Click on All >> Local update sets



2. Click on new



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

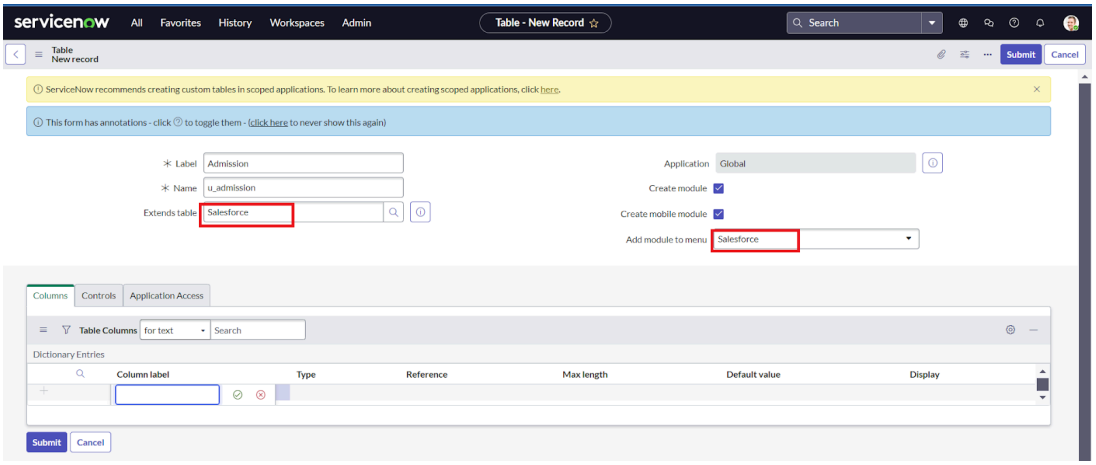


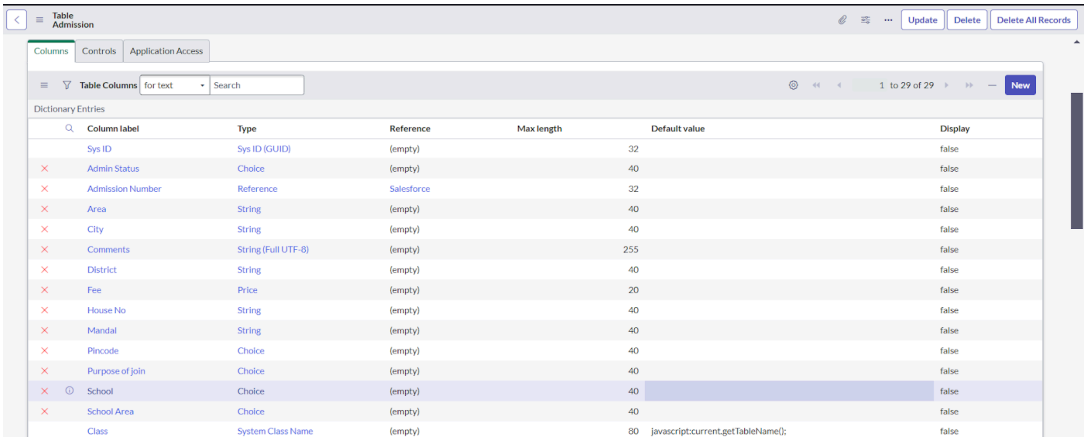
Step 3: Creating Salesforce Table

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

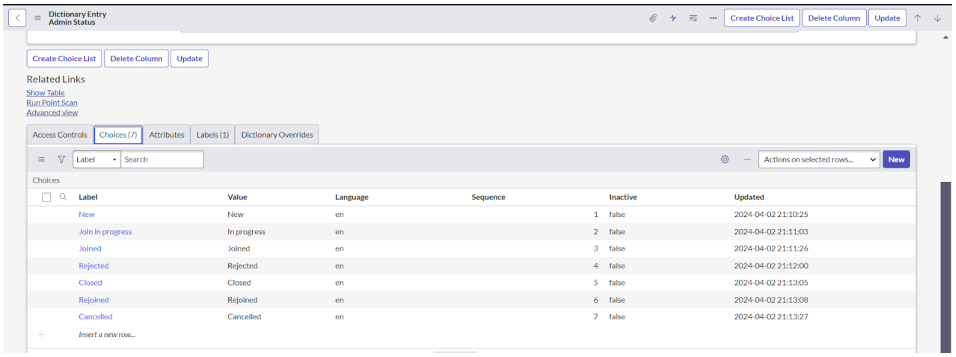
Step 4: Creating Admission Table

- Create an Admission Table with Columns given.
- Select Extends Table >> Salesforce and also Select Add module to menu >> Salesforce.
- Create Fields as shown

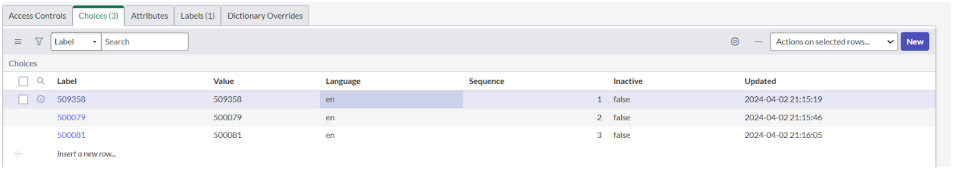




- Create choice for Admin Status as:

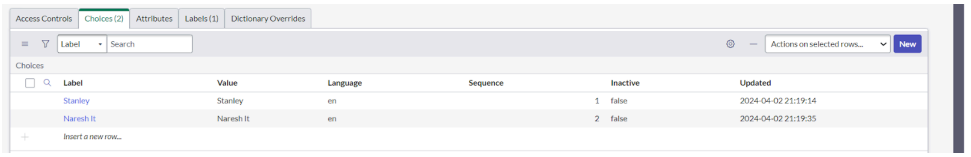


- Create choice for Pincode as:

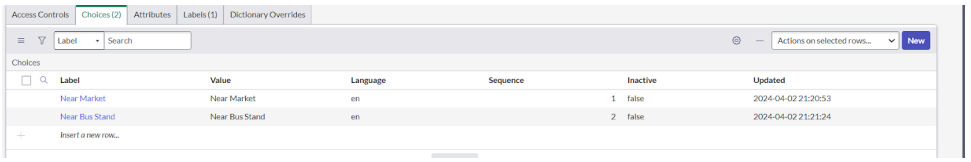


- Create choice for Purpose of Join as:

- Create choice for School as:



- Create choice for School Area as:



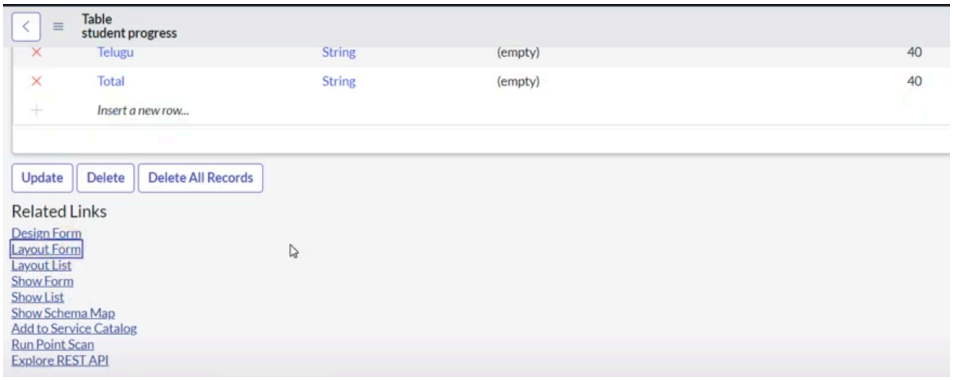
Step 5: Creating Student Progress Table

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

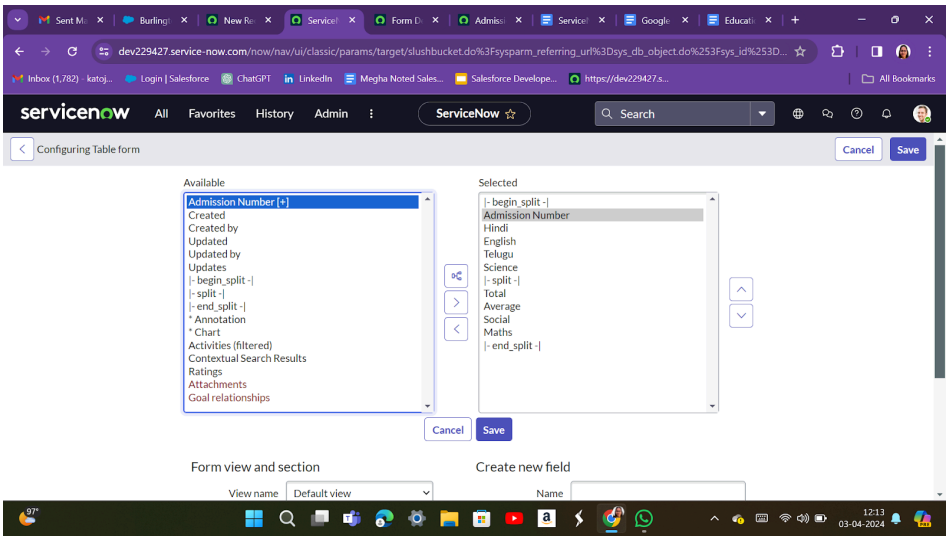
×	Admission Number	Reference	Salesforce	32	false
×	English	String	(empty)	40	false
×	Hindi	String	(empty)	40	false
×	Maths	String	(empty)	40	false
×	Percentage	String	(empty)	40	false
×	Result	String	(empty)	40	false
×	Science	String	(empty)	40	false
×	Social	String	(empty)	40	false
×	Telugu	String	(empty)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

Step 6: Configuring Table form for Student Progress Table

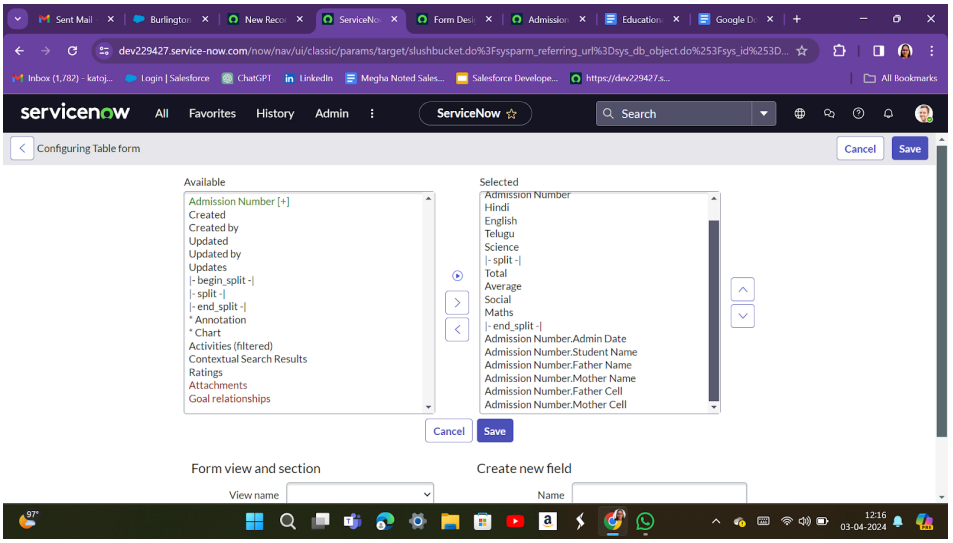
- In the Student Progress Table Page , Click on Layout form .



- Click on Admission Number [+] .

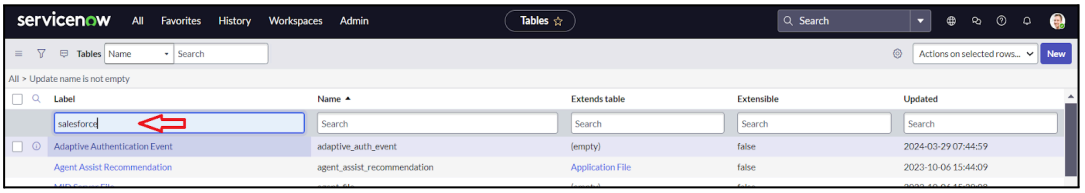


- Select below Admission Number fields in Available side and send it to selected side as below >> save.

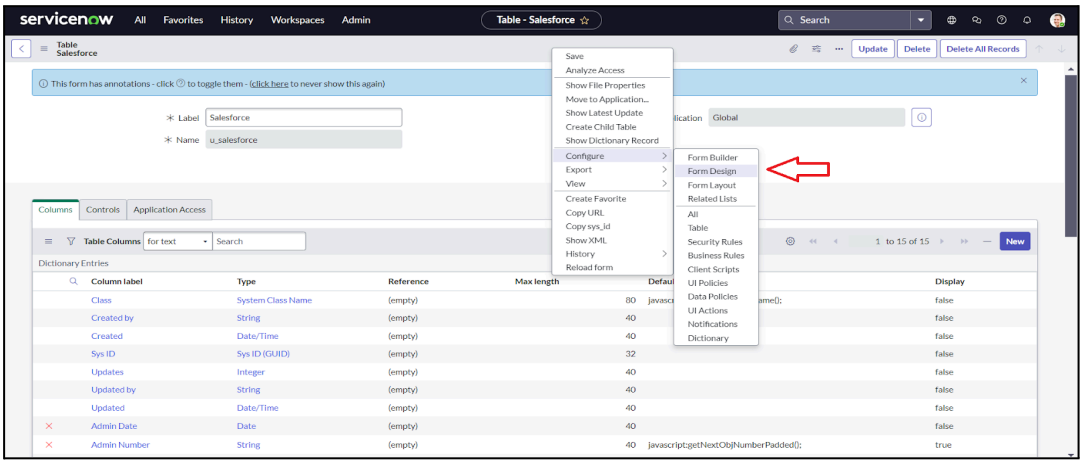


Step 7: Creating Form Design for Salesforce Table

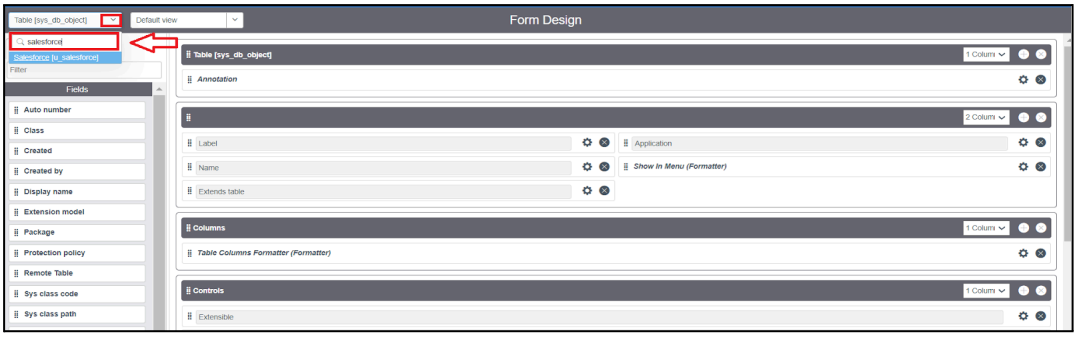
1. All >> System Definition >> Tables .
2. In Label Search for Salesforce and open .



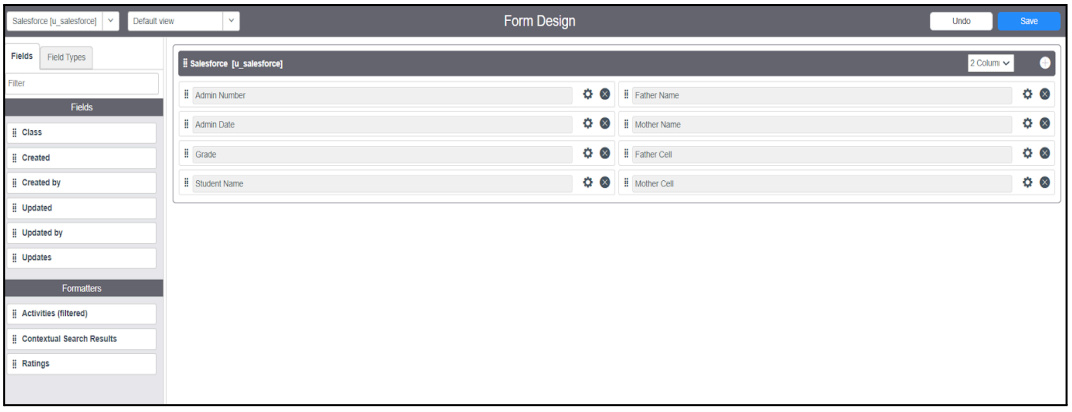
3. Right Click on top Toggle >> Configure >> Form Design.



4. In drop down select Salesforce(u_salesforce).



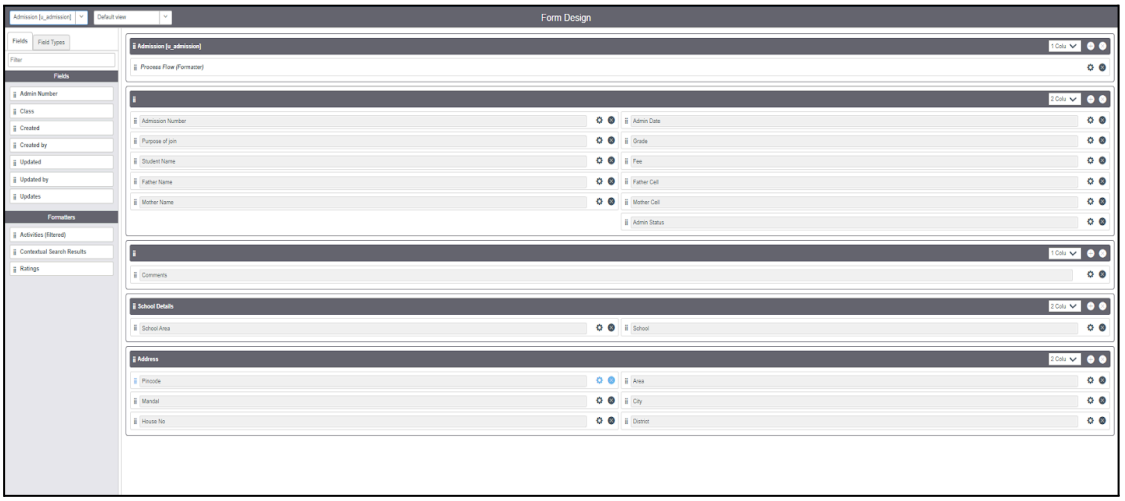
5. Drag and drop the fields to the left side as below.



6. Save

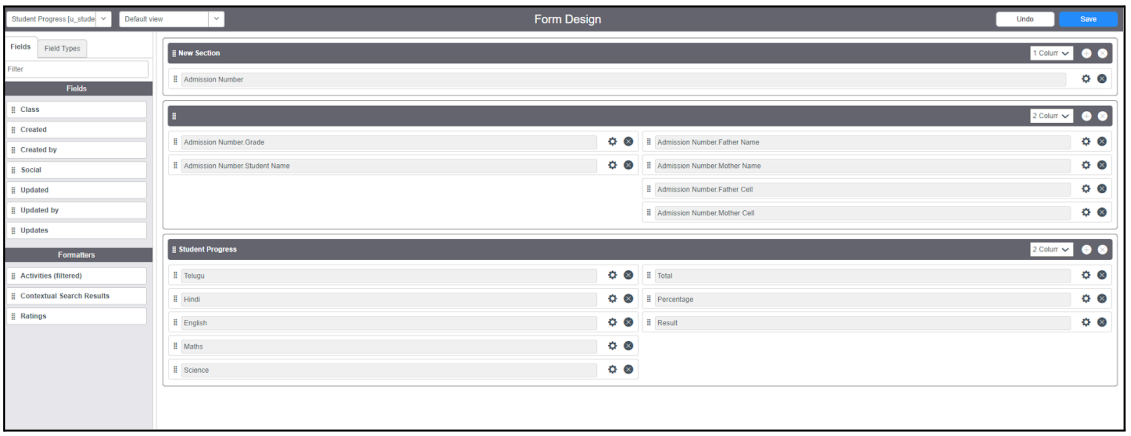
Step 8: Creating Form Design for Admission Table

- Follow the same Step s as Activity1,Configure the fields as below and Save.



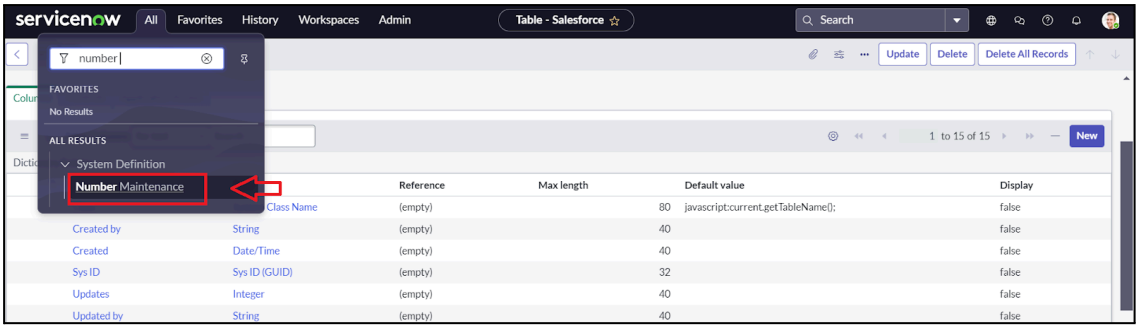
Step 9: Creating Form Design for Student progress Table

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

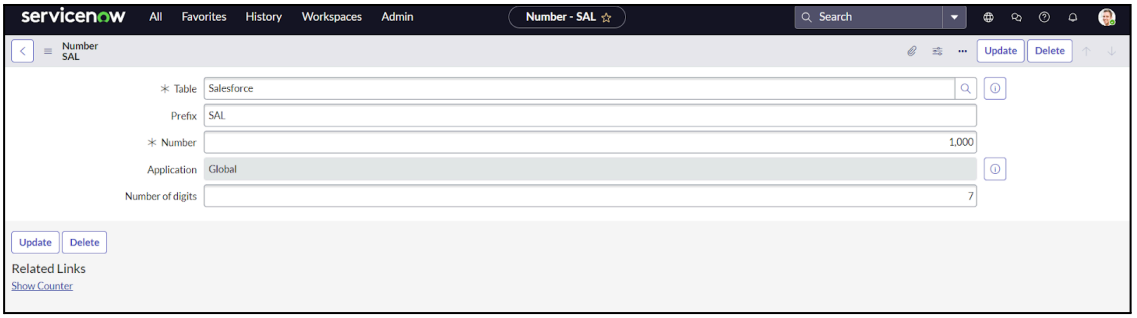


Step 10: Creating Number Maintenance for Admin Number

- All >> Number Maintenance >> New

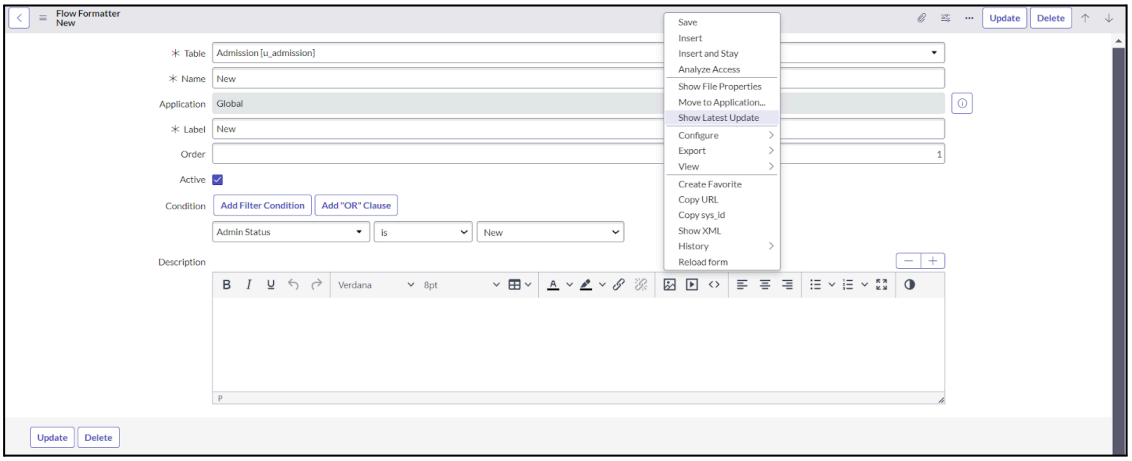


- Fill the details >> Submit.



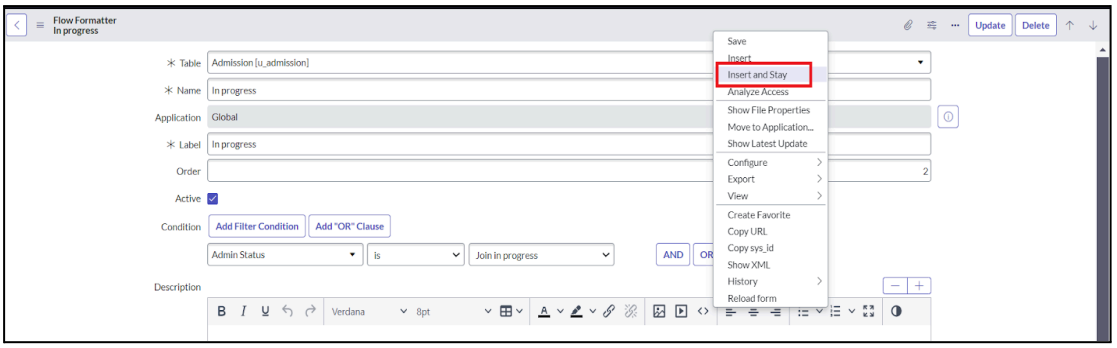
Step 11: Creating Process Flow for Admission Table

- 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.

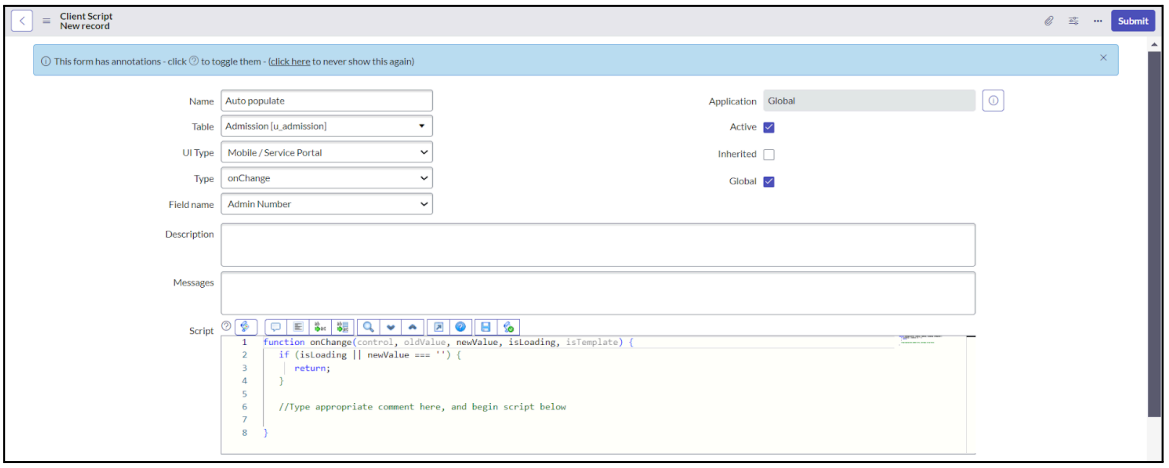


- Replace the Name and Label in order and click on Insert on stay.
  Joined >> Rejected >> Rejoined >> Closed >> Cancelled.

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

Step 12: 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.

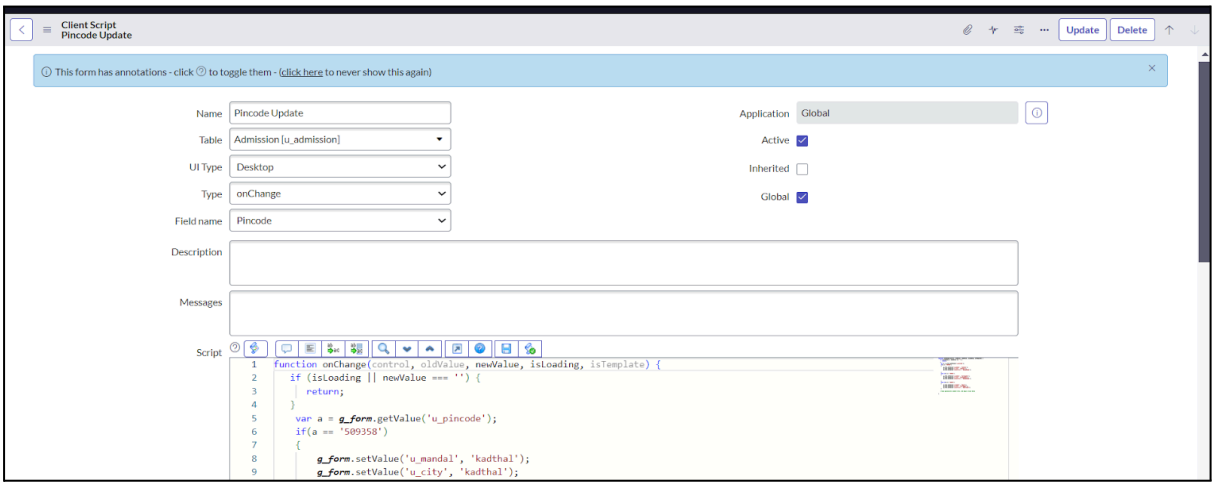
```
function onChange(control, oldValue, newValue, isLoading, isTemplate) {
  if (isLoading || newValue === '') {
    return;
  }

  //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 .

Step 13: Creating “Pincode Update” Client Scripts for Admission Table

- Fill the Details as given.



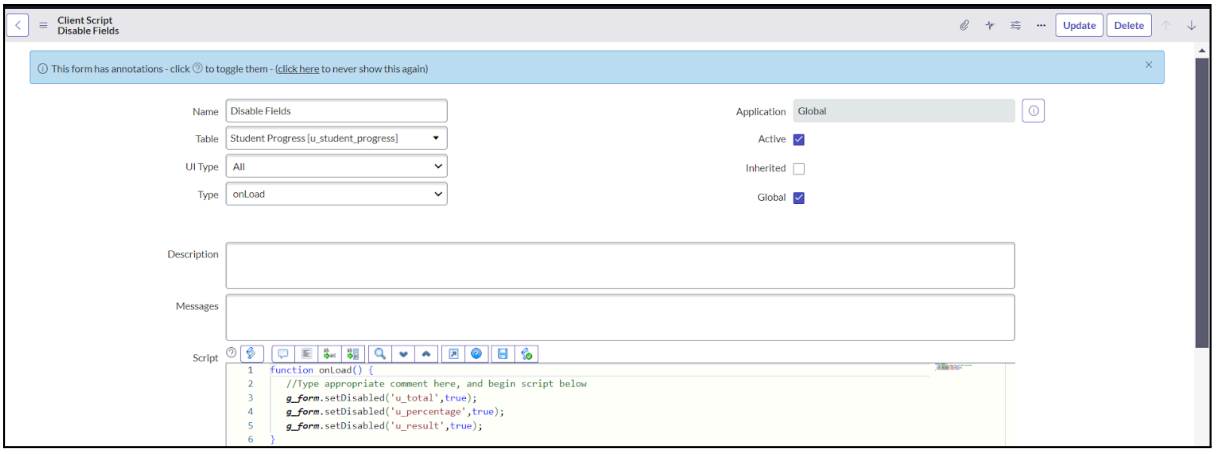
- Write the Code as below, Enable Isolate script and Save.

```
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

}
```

Step 14: Creating “Disable Fields” Client Scripts for Student progress Table

- Fill the Details as given.

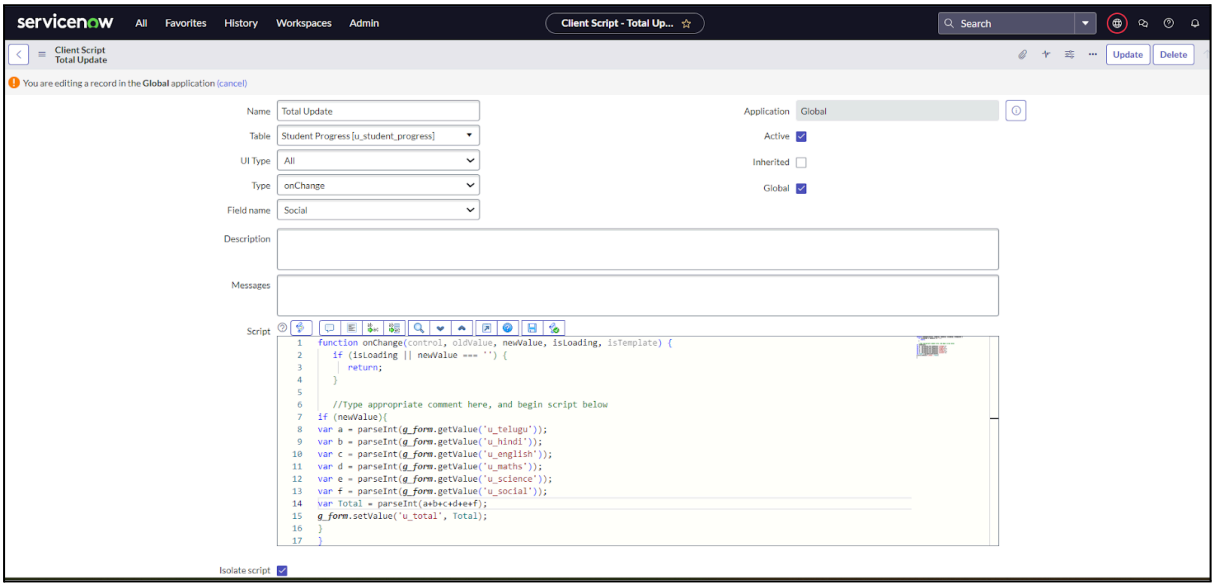


- Write the Code as below, Enable Isolate script and Save.

```
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);
}
```

Step 15: Creating “Total Update” Client Scripts for Student progress Table

- Fill the Details as given.

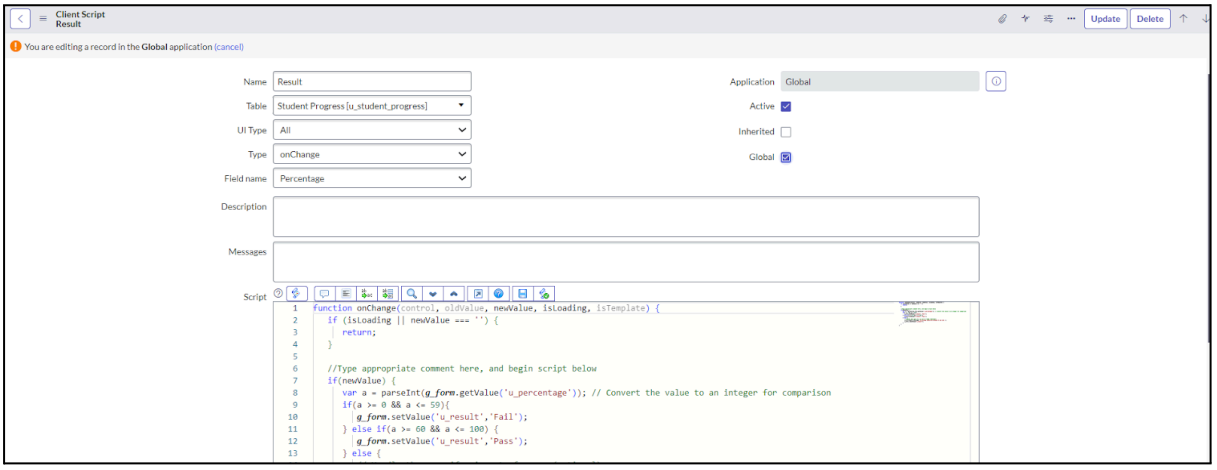


- Write the Code as below, Enable Isolate script and Save.

```
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_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);
}
}
```

Step 16: Creating “Result” Client Scripts for Student progress Table

- Fill the Details as given.

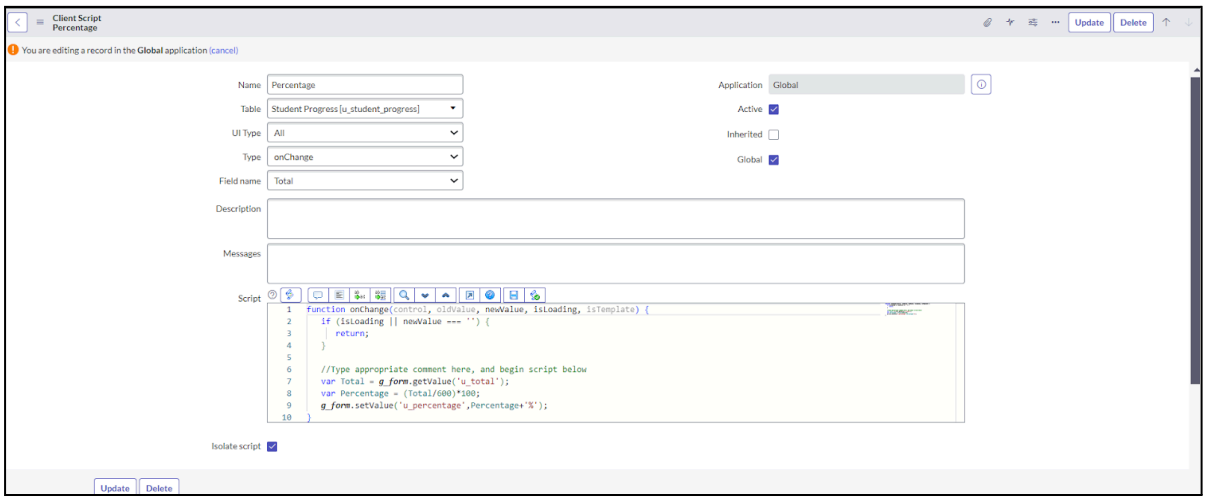


- Write the Code as below, Enable Isolate script and Save.

```
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');
    }
  }
}
```

Step 17: 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+'%');
}
```

---

7. Conclusion:

- The **Educational Organisation Using ServiceNow** project effectively automates and streamlines key administrative tasks in educational institutions. By integrating **ServiceNow** for workflow management and **TensorFlow** for data analysis, the system ensures efficient handling of student and teacher data, smooth admissions, and improved decision-making. Overall, it provides a reliable and scalable solution for modern educational management.

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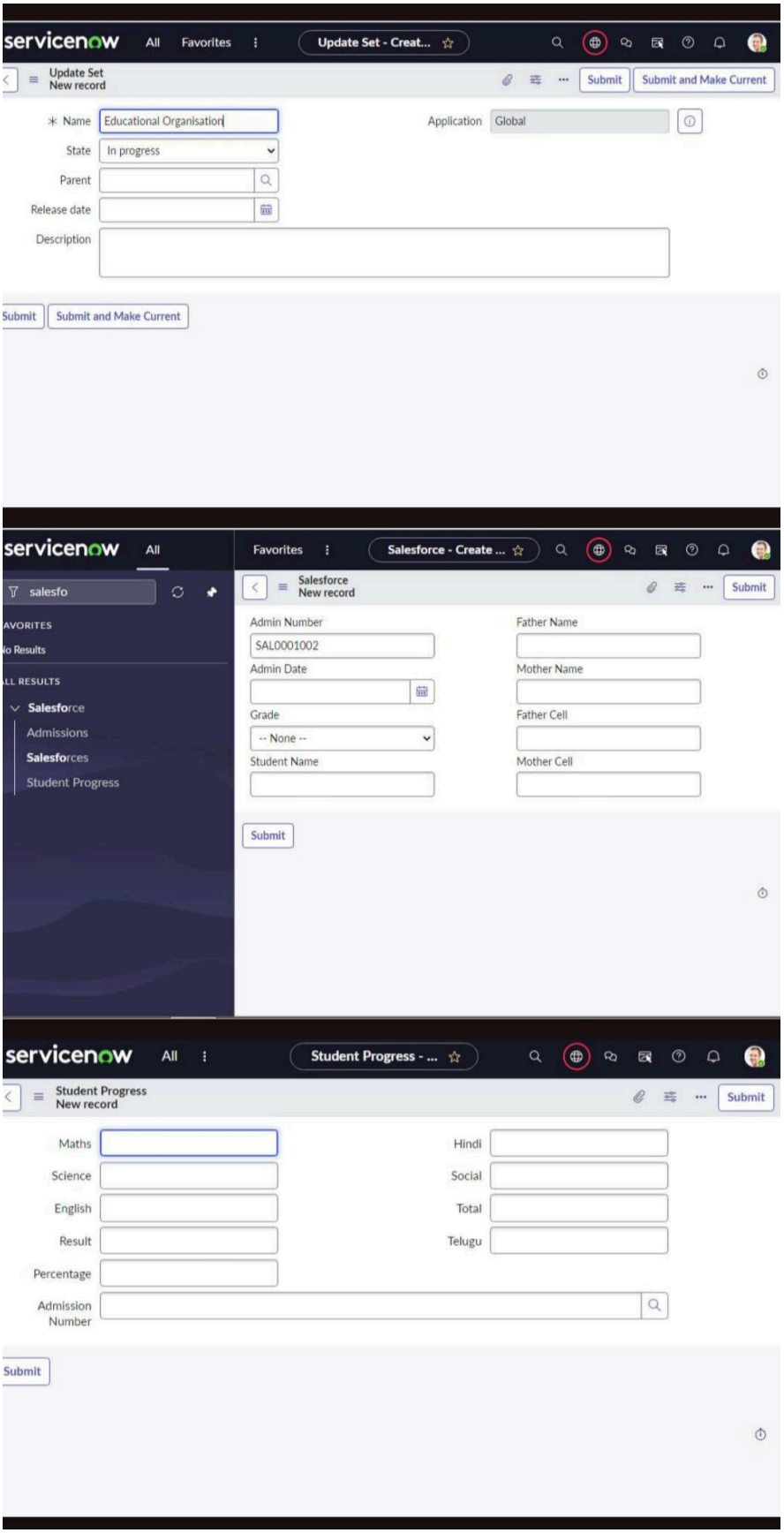
8. Result:


servicenow
All
Favorites
Update Set - Creat...
Update Set
New record
Submit
Submit and Make Current
Name
Educational Organisation
Application
Global
State
In progress
Parent
Release date
Description
Submit
Submit and Make Current
servicenow
All
Favorites
Salesforce - Create ...
salesfo
Salesforce
New record
Submit
Admin Number
SAL0001002
Admin Date
Grade
-- None --
Student Name
Father Name
Mother Name
Father Cell
Mother Cell
Salesforce
Admissions
Salesforces
Student Progress
Submit
servicenow
All
Student Progress - ...
Student Progress
New record
Submit
Maths
Science
English
Result
Percentage
Admission Number
Hindi
Social
Total
Telugu
Submit