

# PROJECT DOCUMENTATION

**Project Title :** Educational Organisation Using ServiceNow

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**NM\_ID :** E8134801B1EE0ABB927495C424A84A47

**Category :** ServiceNow System Administrator

**Platform :** ServiceNow Developer Instance

## 1. IDEATION PHASE

### Description :

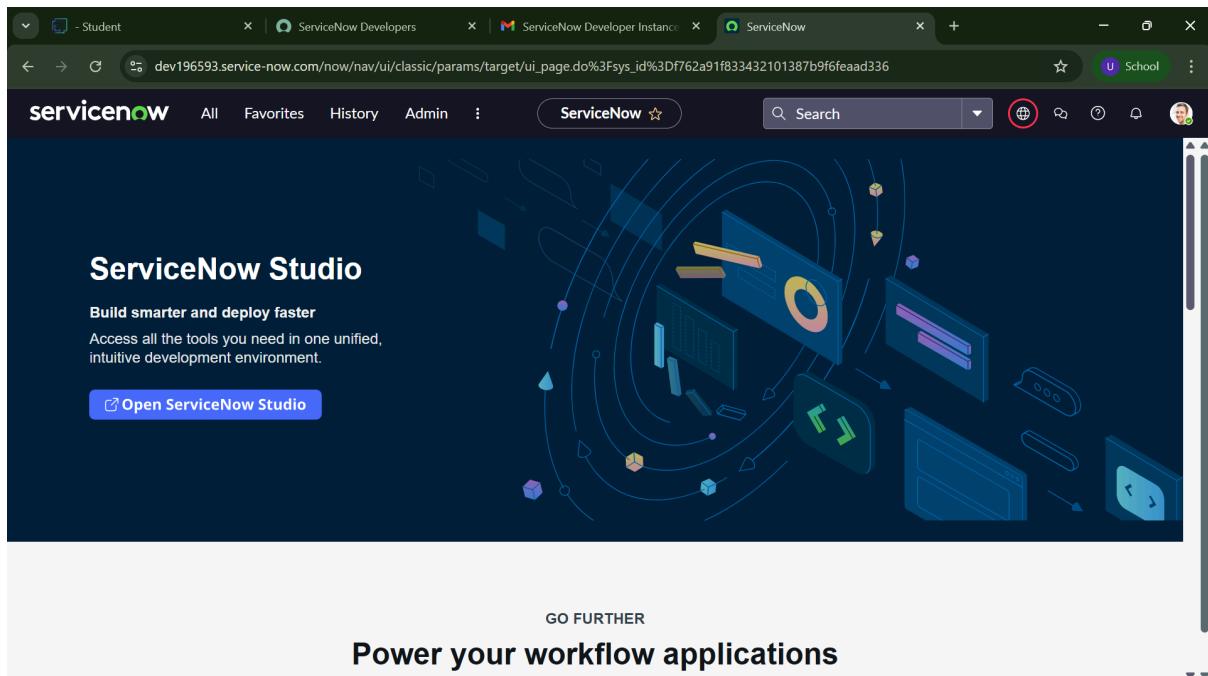
The “Educational Organisation using ServiceNow” project is designed to digitize school administration processes — specifically student admissions, record maintenance, and progress tracking — through a custom-built ServiceNow application.

It reduces manual paperwork and improves record accessibility for both staff and students.

### Key Objectives :

- To automate student admission entry and data storage.
- To maintain structured tables for Admissions, Student Progress, and Results.
- To generate grades and percentages automatically through client scripts.
- To build a user-friendly interface with forms and list views.

**Figure 1.1-ServiceNow Developer Homepage**



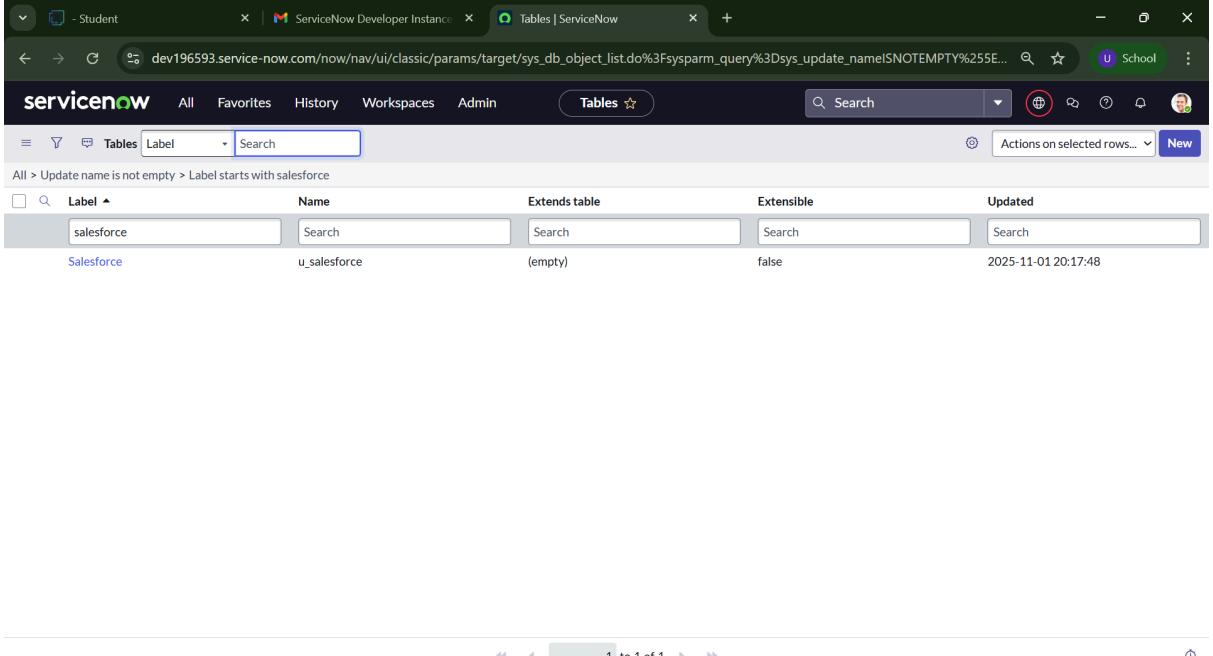
**Figure 1.2 – Educational Organisation Application**

The screenshot shows a list of 'Update Sets' in the ServiceNow developer interface. The top navigation bar includes tabs for '- Student', 'ServiceNow Developers', 'ServiceNow Developer Instance', and 'Update Sets | ServiceNow'. The URL is dev196593.service-now.com/nav/ui/classic/params/target/sys\_update\_set\_list.do%3Fsysparm\_userpref\_module%3D50047c06c0a8016c0135a14ce... The main header says 'servicenow' with a star icon, followed by 'All', 'Favorites', 'History', 'Admin', and a dropdown menu. A search bar with a magnifying glass icon and a dropdown arrow is next to it. To the right are icons for a globe, a question mark, a help icon, a bell, and a user profile. The search bar has 'Name' selected and contains the text 'Search'. Below the search bar is a 'Actions on selected rows...' dropdown and a 'New' button. The main content area displays a table titled 'All' with columns: Name, Application, State, Installed from, Created, Created by, Parent, and Batch Base. There are four rows in the table:

Name	Application	State	Installed from	Created	Created by	Parent	Batch Base
Default	Pipeline	In progress		2025-10-30 20:00:02	admin	(empty)	(empty)
Default	Global	In progress		2025-08-07 12:53:07	system	(empty)	(empty)
Default	Security Center	In progress		2025-08-07 14:16:34	system	(empty)	(empty)
Educational Organisation	Global	In progress		2025-10-30 05:27:42	admin	(empty)	(empty)

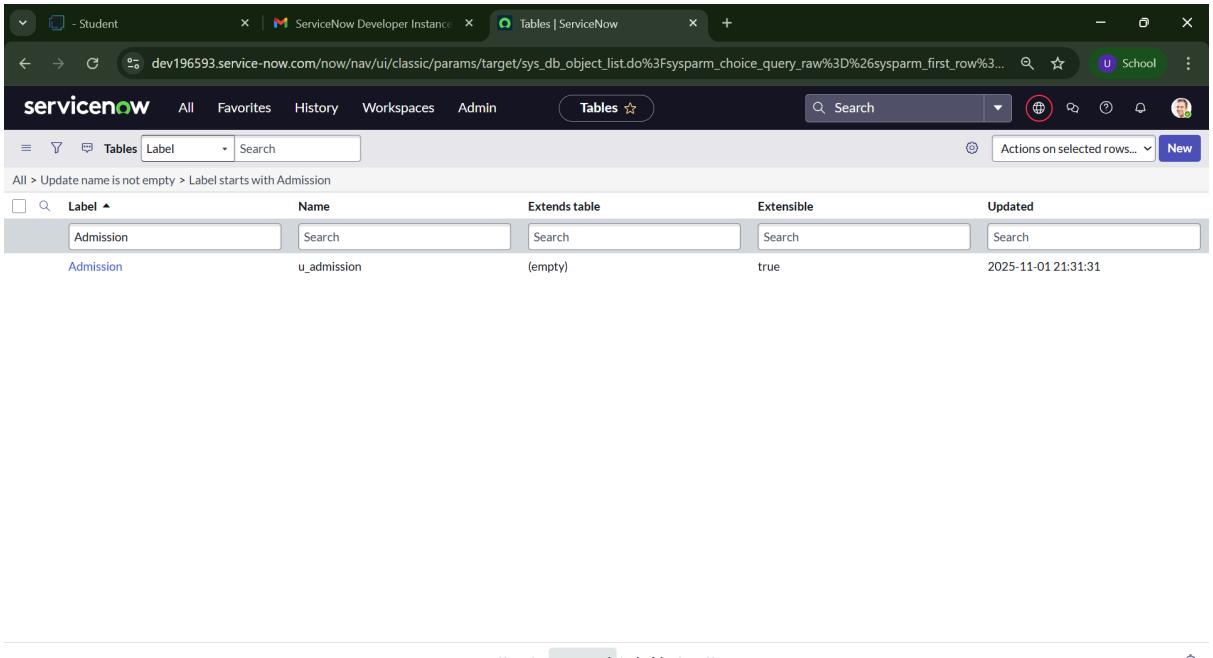
Below the table, under 'Related Links', are 'Merge Update Sets' and 'New' buttons. At the bottom, there is a navigation bar with arrows and the text '1 to 4 of 4'.

**Figure 1.3 – List of Created Tables in the Application**



The screenshot shows a ServiceNow application window titled "Tables | ServiceNow". The browser address bar indicates the URL is dev196593.service-now.com/nav/ui/classic/params/target/sys\_db\_object\_list.do?sysparm\_query%3Dsys\_update\_name!SNOTEMPTY%255E... . The main content area displays a table with one row. The table has columns: Label, Name, Extends table, Extensible, and Updated. The single row contains the values: salesforce, u\_salesforce, (empty), false, and 2025-11-01 20:17:48 respectively. The "Label" column header is currently selected.

Label	Name	Extends table	Extensible	Updated
Salesforce	u_salesforce	(empty)	false	2025-11-01 20:17:48



The screenshot shows a ServiceNow application window titled "Tables | ServiceNow". The browser address bar indicates the URL is dev196593.service-now.com/nav/ui/classic/params/target/sys\_db\_object\_list.do?sysparm\_choice\_query\_raw%3D%26sysparm\_first\_row%3... . The main content area displays a table with one row. The table has columns: Label, Name, Extends table, Extensible, and Updated. The single row contains the values: Admission, u\_admission, (empty), true, and 2025-11-01 21:31:31 respectively. The "Label" column header is currently selected.

Label	Name	Extends table	Extensible	Updated
Admission	u_admission	(empty)	true	2025-11-01 21:31:31

Screenshot of the ServiceNow Tables interface showing the 'Student Progress' table.

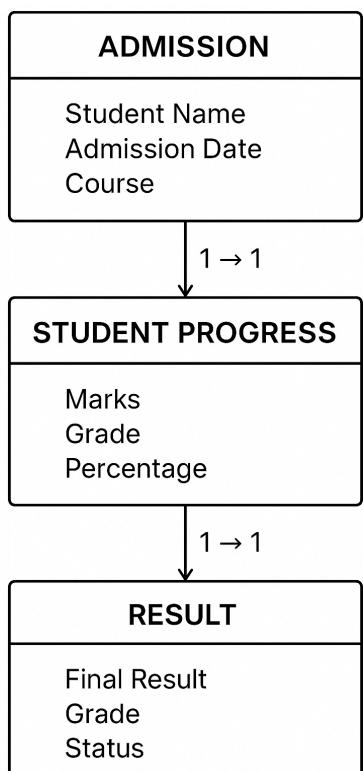
**Table Details:**

Label	Name	Extends table	Extensible	Updated
Student Progress	u_student_progress	(empty)	true	2025-11-01 21:39:43

**Search Bar:** Search

**Actions:** Actions on selected rows... New

## Conceptual ER Diagram :



## 2. Project Planning Phase

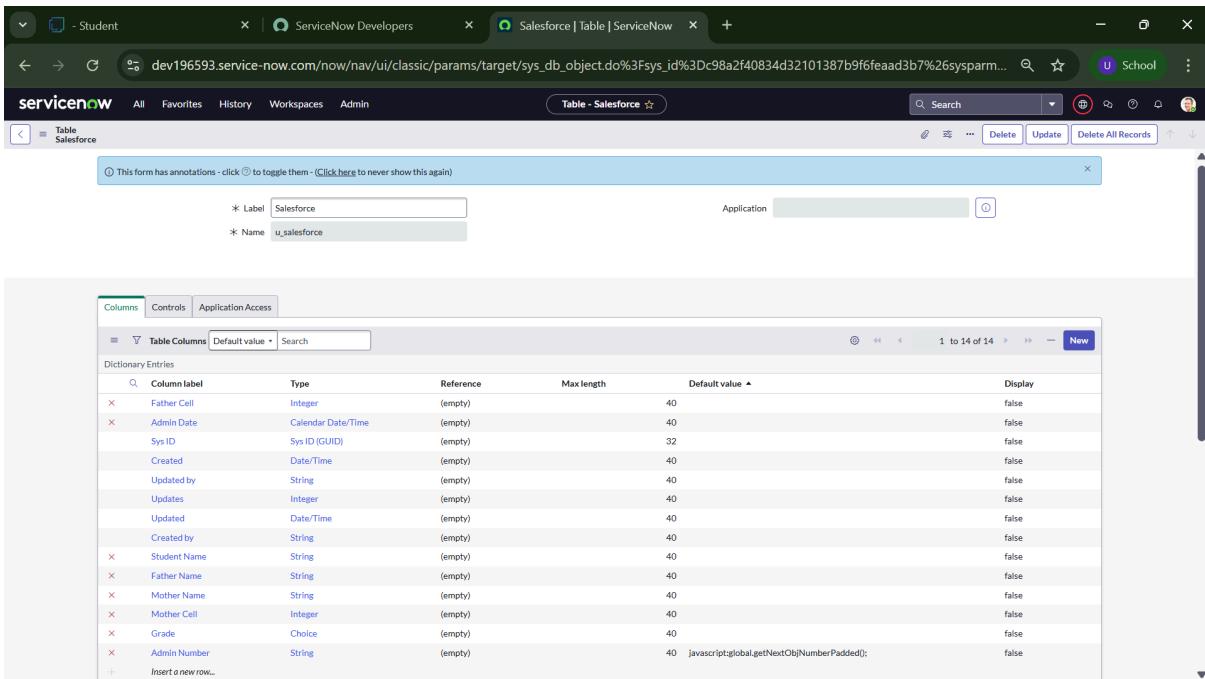
### Description :

This phase defines how and when the project components were planned, structured, and executed.

### Key Planning Activities :

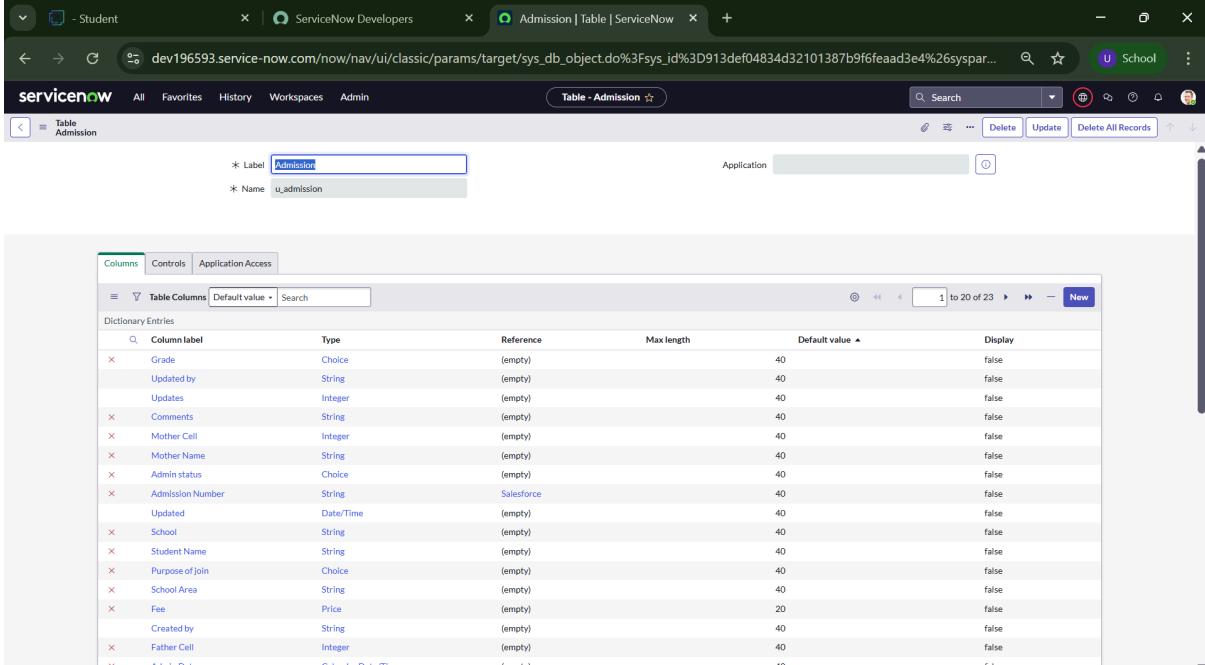
<i>Requirement Gathering</i>	Analyzing the needs of the educational system and identifying key functionalities.
<i>Table &amp; Form Setup</i>	Creating Admission, Student Progress, and Result tables with their respective forms.
<i>UI/UX Design</i>	Designing a simple and user-friendly layout for data entry and review.
<i>Script Development</i>	Writing client scripts for automation (e.g., auto-calculate grade & percentage).
<i>Testing &amp; Validation</i>	Checking all modules for errors and verifying record submissions.

**Figure 2.1 –Table Setup**



The screenshot shows the ServiceNow Table Setup interface for the 'Salesforce' table. The top navigation bar includes tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The current page is 'Table - Salesforce'. The table has two columns: 'Label' and 'Name'. The 'Label' column contains 'Salesforce' and 'u\_salesforce'. The 'Name' column contains 'u\_salesforce'. Below the table, a message box indicates that annotations are visible. The main content area displays the 'Dictionary Entries' for the 'Table Columns' tab. The table columns are:

Column label	Type	Reference	Max length	Default value	Display
Father Cell	Integer	(empty)	40		false
Admin Date	Calendar Date/Time	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false
Created	Date/Time	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Updated	Date/Time	(empty)	40		false
Created by	String	(empty)	40		false
Student Name	String	(empty)	40		false
Father Name	String	(empty)	40		false
Mother Name	String	(empty)	40		false
Mother Cell	Integer	(empty)	40		false
Grade	Choice	(empty)	40		false
Admin Number	String	(empty)	40	javascript:global.getNextObjNumberPadded();	false
Insert a new row...					

The screenshot shows the ServiceNow Table Setup interface for the 'Admission' table. The top navigation bar includes tabs for 'All', 'Favorites', 'History', 'Workspaces', and 'Admin'. The current page is 'Table - Admission'. The table has two columns: 'Label' and 'Name'. The 'Label' column contains 'Admission' and 'u\_admission'. The 'Name' column contains 'u\_admission'. Below the table, a message box indicates that annotations are visible. The main content area displays the 'Dictionary Entries' for the 'Table Columns' tab. The table columns are:

Column label	Type	Reference	Max length	Default value	Display
Grade	Choice	(empty)	40		false
Updated by	String	(empty)	40		false
Updates	Integer	(empty)	40		false
Comments	String	(empty)	40		false
Mother Cell	Integer	(empty)	40		false
Mother Name	String	(empty)	40		false
Admin status	Choice	(empty)	40		false
Admission Number	String	Salesforce	40		false
Updated	Date/Time	(empty)	40		false
School	String	(empty)	40		false
Student Name	String	(empty)	40		false
Purpose of join	Choice	(empty)	40		false
School Area	String	(empty)	40		false
Fee	Price	(empty)	20		false
Created by	String	(empty)	40		false
Father Cell	Integer	(empty)	40		false
Admin Date	Calendar Date/Time	(empty)	40		false

This screenshot shows the ServiceNow Table - Student Progress setup. At the top, there is an annotation message: "This form has annotations - click ⚡ to toggle them - (Click here to never show this again)". Below it, there are two fields: "Label" (Student Progress) and "Name" (u\_student\_progress). The main area displays the "Table Columns" configuration, listing various fields like Maths, Telugu, Result, Father Cell, Social, Grade, Updated by, Updates, Percentage, Updated, Created by, Sys ID, Created, Father Name, and Science. Each field is defined by its label, type (e.g., Integer, String, Choice), reference (empty), max length (40), default value (false), and display status.

Column label	Type	Reference	Max length	Default value	Display
Maths	Integer	(empty)	40	false	
Telugu	Integer	(empty)	40	false	
Result	Choice	(empty)	40	false	
Father Cell	Integer	(empty)	40	false	
Social	Integer	(empty)	40	false	
Grade	Choice	(empty)	40	false	
Updated by	String	(empty)	40	false	
Updates	Integer	(empty)	40	false	
Percentage	Integer	(empty)	40	false	
Updated	Date/Time	(empty)	40	false	
Created by	String	(empty)	40	false	
Sys ID	Sys ID (GUID)	(empty)	32	false	
Created	Date/Time	(empty)	40	false	
Father Name	String	(empty)	40	false	
Science	Integer	(empty)	40	false	

## Figure 2.2-Form Setup

This screenshot shows the Salesforce Form Design interface. The left sidebar lists fields under "Fields" and "Formatters". The main area shows a mapping between Salesforce fields and ServiceNow fields. The mapping is as follows:

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

Form Design

**Admission [u\_admission]**

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

**Comments**

Number
Pincode

**School Details**

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

**Fields**

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

**Formatters**

- Activities (filtered)
- Contextual Search Results
- Ratings

Form Design

**Student Progress [u\_student\_progress]**

Admission Number	Father Name
Grade	Mother Name
Student Name	Father Cell
	Mother Cell
	Number

**Student Progress**

Telugu	Total
Hindi	Percentage
English	Result
Maths	
Science	
Social	

**Fields**

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

**Formatters**

- Activities (filtered)
- Contextual Search Results
- Ratings

### 3. Project Design Phase

#### Description :

The design phase focuses on creating the structure of the application — defining tables, relationships, and user interfaces.

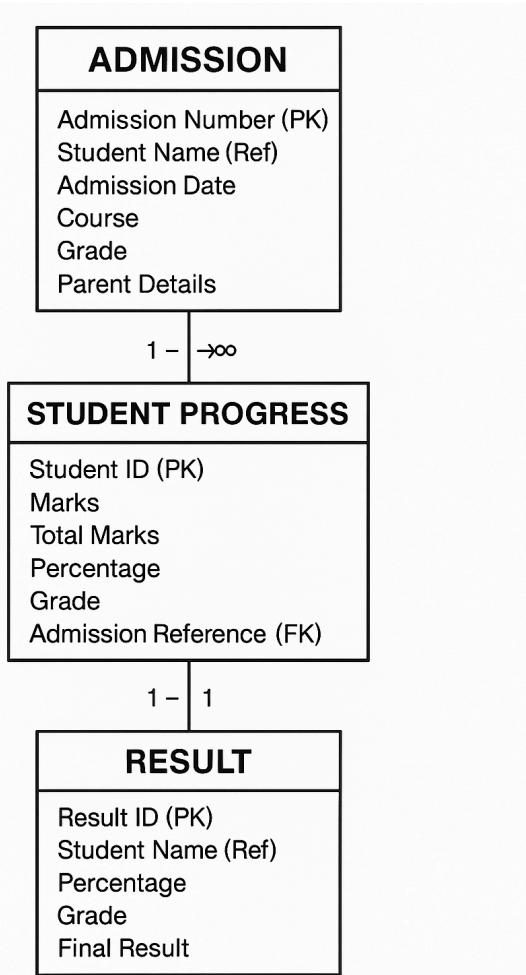
#### Components Designed :

**Admission Table** :Fields: Admission Number, Admission Date, Grade, Student Name, Father/Mother Details, Phone numbers.

**Student Progress Table** :Fields: Student Name, Tamil, English, Maths, Science, Social, Total, Percentage, Result to track subject marks and calculate percentage.

**Result Table** :Fields: Admission (Reference), Section (Reference), Student Progress (Collection)

#### ER Diagram :



**Figure 3.1- List of Designed Forms**

The image displays two screenshots of ServiceNow designed forms:

**Create SAL0001011 (Student)**

Admin Number	SAL0001011	Father Name	
Admin Date		Mother Name	
Grade	-- None --	Father Cell	
Student Name		Mother Cell	

**Submit**

**Create ADM0001007 (Admission)**

Admission Number		Admin Date	
Purpose of join	-- None --	Grade	-- None --
Student Name		Fee	\$ 0.00
Father Name		Father Cell	
Mother Name		Mother Cell	
Comments			
Number	ADM0001007		
Pincode			

**School Details**

School Area	-- None --	School	-- None --
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**Submit**

Admission Number: [Input Field]

Grade: -- None --

Student Name: [Input Field]

Father Name: [Input Field]

Mother Name: [Input Field]

Father Cell: [Input Field]

Mother Cell: [Input Field]

Number: STU0001003

**Student Progress**

Telugu	Total
Hindi	Percentage
English	Result
Maths	-- None --
Science	
Social	

Submit

**Figure 3.2- Client Scripts of Total, Percentage and Result**

Name: Total Update

Table: Student Progress [u\_student\_progress]

UI Type: All

Type: onChange

Field name: Social

Application: [Input Field]

Active:

Inherited:

Global:

Script:

```

1  Function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3    if (isLoading || newValue === '') {
4      return;
5    }
6
7  }
8
9
10 //Type appropriate comment here, and begin script below
11
12 if (newValue){
13
14 var a = parseInt(g_form.getValue('u_telugu'));
15 var b = parseInt(g_form.getValue('u_hindi'));
16 var c = parseInt(g_form.getValue('u_english'));
17 var d = parseInt(g_form.getValue('u_maths'));
18 var e = parseInt(g_form.getValue('u_science'));
19
20
21
22
23

```

ServiceNow Developers - Percentage | Client Script | ServiceNow

Client Script - Percentage

Name: Percentage

Table: Student Progress [u\_student\_progress]

UI Type: All

Type: onChange

Field name: Total

Description:

Messages:

Script:

```
1 function onchange(control, oldValue, newValue, isLoading, isTemplate) {
2
3     if (!isLoading || newValue === '') {
4
5         return;
6
7     }
8
9
10    //Type appropriate comment here, and begin script below
11
12    var Total = g_form.getValue('u_total');
13
14    var Percentage = (Total/600)*100;
15
16    g_form.setValue('u_percentage',Percentage+'%');
17
18
19
20}
```

Isolate script

ServiceNow Developers - Result | Client Script | ServiceNow

Client Script - Result

Name: Result

Table: Student Progress [u\_student\_progress]

UI Type: All

Type: onChange

Field name: Percentage

Description:

Messages:

Script:

```
1 function onChange(control, oldValue, newValue, isLoading, isTemplate) {
2
3     if (!isLoading || newValue === '') {
4
5         return;
6
7     }
8
9
10    //Type appropriate comment here, and begin script below
11
12    if(newValue) {
13
14        var a = parseInt(g_form.getValue('u_percentage')); // Convert the value to an integer for comparison
15
16        if(a >= 0 && a <= 59){
17
18            | g_form.setValue('u_result','Fail');
19
20        } else if(a >= 60 && a <= 100) {
21
22            | g_form.setValue('u_result','Pass');
23
24        } else {
25
26
27    }
```

## **4. Requirement Analysis**

### **Purpose:**

List all the software, hardware, and functional requirements.

### **Include:**

#### **Functional Requirements:**

- Users should be able to submit admission forms.
- Grades must be selected from dropdown.
- Users can view all submitted admissions under the “All” module.
- Records should store student details and contact info.

#### **Non-Functional Requirements:**

- Must be easy to use and should be accessible through a web browser.
- Should be accessible through a web browser.
- Should handle multiple submissions without error.

#### **Software Requirements:**

- Platform: ServiceNow
- Environment: Developer Instance
- Browser: Google Chrome

#### **Hardware Requirements:**

- Laptop/PC with 4GB RAM
- Internet connection

## 5. Performance Testing Phase

### Description

Testing ensures that each function of the ServiceNow application performs as expected.

### Brainstorming – Performance Testing :

Step	Details
<b>Step 1:</b> Team Gathering, Collaboration, and Problem Selection	The team discussed how to check the speed and stability of the application. The main goal was to test if the ServiceNow app works smoothly when multiple records are entered and processed.
<b>Step 2:</b> Brainstorming, Idea Listing, and Grouping	Ideas were listed such as checking form load time, record submission speed, accuracy of grade calculation, and smooth navigation between modules. These were grouped under system performance, data accuracy, and user experience.
<b>Step 3:</b> Idea Prioritization	High priority was given to testing data accuracy and record handling speed. Medium priority was given to checking form navigation and response time. Low priority was given to visual appearance and layout checks.
<b>Outcome</b>	The app worked efficiently with fast responses and correct data calculations. All forms loaded quickly, and no errors or delays were found during testing.

## Figure 5.1-Execution

The screenshot shows a ServiceNow interface for creating a new student record. The URL in the address bar is `dev196593.service-now.com/nav/ui/classic/params/target/u_salesforce.do%3Fsys_id%3D-1`. The page title is "Salesforce - Create SAL0001012". The form fields include:

Admin Number	SAL0001012	Father Name	Sanjay
Admin Date	2025-11-03 05:35:16	Mother Name	Sanjana
Grade	A	Father Cell	4,573,674,368
Student Name	Krish	Mother Cell	3,592,375,737

At the bottom left is a "Submit" button.

The screenshot shows a ServiceNow interface for creating a new admission record. The URL in the address bar is `dev196593.service-now.com/nav/ui/classic/params/target/u_admission.do%3Fsys_id%3D-1`. The page title is "Admission - Create ADM0001008". The form fields include:

Admission Number	SAL0001012	Admin Date	2025-11-03 05:38:06
Purpose of join	Student	Grade	--None--
Student Name	Krish	Fee	\$ 5,683.00
Father Name	Sanjay	Father Cell	4,573,674,368
Mother Name	Sanjana	Mother Cell	3,592,375,737
Comments	This is a student record	Admin status	Active
Number	ADM0001008		
Pincode			863,459

Below the main form is a "School Details" section:

School Area	T.Nagar	School	JHR Higher Secondary School
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At the bottom left is a "Submit" button.

Servicenow - Student | ServiceNow Developers | Create STU0001004 | Student Progress

Student Progress - Create STU0001004

Admission Number: SAL0001012  
Grade: A  
Student Name: Krish

Father Name: Sanjay  
Mother Name: Sanjana  
Father Cell: 4,573,674,368  
Mother Cell: 3,592,375,737  
Number: STU0001004

**Student Progress**

Telugu	98
Hindi	95
English	93
Maths	90
Science	96
Social	92

Total: 564  
Percentage: 94%  
Result: Pass

Servicenow - Student | ServiceNow Developers | Create STU0001004 | Student Progress

Student Progress - Create STU0001004

Admission Number: SAL0001012  
Grade: A  
Student Name: Krish

Father Name: Sanjay  
Mother Name: Sanjana  
Father Cell: 4,573,674,368  
Mother Cell: 3,592,375,737  
Number: STU0001004

**Student Progress**

Telugu	98
Hindi	95
English	93
Maths	90
Science	96
Social	92

Total: 564  
Percentage: 94%  
Result: Pass

## Figure 5.2- Results

The screenshot shows a ServiceNow interface with the title bar "Salesforces | ServiceNow". The main content area displays a table titled "Salesforces" with columns: Admin Number, Admin Date, Father Cell, Father Name, Grade, Mother Cell, Mother Name, and Student Name. There are three rows of data:

Admin Number	Admin Date	Father Cell	Father Name	Grade	Mother Cell	Mother Name	Student Name
SAL0001012	2025-11-03 05:35:16	2,147,483,647	Sanjay	A	2,147,483,647	Sanjana	Krish
SAL0001006	2025-11-01 21:55:40	2,147,483,647	John	A	2,147,483,647	Jesi	Jeya
SAL0001010	2025-11-02 22:18:03	2,147,483,647	Shankar	B	2,147,483,647	Rani	Jagan

The screenshot shows a ServiceNow interface with the title bar "Admissions | ServiceNow". The main content area displays a table titled "Admissions" with columns: Number, Admin Date, Admin status, Admission Number, Comments, Father Cell, Father Name, Fee, Grade, and Mother Cell. There are three rows of data:

Number	Admin Date	Admin status	Admission Number	Comments	Father Cell	Father Name	Fee	Grade	Mother Cell
ADM0001008	2025-11-03 05:38:06	Active	SAL0001012	This is a student record	2,147,483,647	Sanjay	\$5,683.00		2,147,483,647
ADM0001006	2025-11-02 22:22:53	Active	SAL0001010	This is a Student Record	2,147,483,647	Shankar	\$5,485.00	B	2,147,483,647
ADM0001004	2025-11-01 22:03:33	Active	SAL0001006	This a Student Record	2,147,483,647	John	\$5,343.00	A	2,147,483,647

<input type="checkbox"/>	Number	Admission Number	English	Father Cell	Father Name	Grade	Hindi	Maths	Mother Cell	Mother Name	
	STU0001002	SAL0001010	Search	Search	Search	B	Search	75	80	2,147,483,647	Rani
	STU0001001	SAL0001006	Search	Search	Search	A	Search	75	78	2,147,483,647	Jesi
<input checked="" type="checkbox"/>	STU0001004	SAL0001012	Search	Search	Search	A	Search	95	90	2,147,483,647	Sanjana

## Conclusion :

The *Educational Organisation using ServiceNow* project successfully demonstrated how automation can simplify and improve school management processes. Through the creation of modules like Admission, Student Progress, and Result, the system effectively handled student data, reduced manual work, and improved accuracy. Each phase—from ideation to testing—was carefully planned and executed, ensuring smooth functionality and a user-friendly interface. Overall, the project achieved its goal of building an efficient, reliable, and easy-to-use educational management system on the ServiceNow platform.