



**PET ENGINEERING COLLEGE  
VALLIOOR-627117.**



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
PROJECT TOPIC: EDUCATIONAL ORGANISATION USING SERVICENOW**

**College Code: 9632**

**Technology: ServiceNow Platform (Low-Code Cloud Application Development)**

**Total number of students in the group: 4**

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## **BONAFIDE CERTIFICATE**

Certified that this project report “**EDUCATIONAL ORGANISATION USING SERVICENOW**” is the Bonafide work of **UDHAYA BANU. M [Reg No: 963222104054]**, who carried out the work under my supervision. Certified further that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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**INTERNAL EXAMINER**

**EXTERNAL EXAMINER**

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S.No	Phases	Description
1.	Ideation Phase	Problem identification, brainstorming, and defining the key objectives of the Educational Organisation.
2.	Project Planning Phase	Planning the project flow, defining roles, timelines, and required tools for implementation.
3.	Project Design Phase	Creating the ER diagram, UI form structure, and database relationships for the project.
4.	Requirement Analysis Phase	Gathering and analysing all functional and non-functional requirements of the system.
5.	Performance Testing Phase	Testing the application for performance, functionality, and user experience.

# **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.

## **Customer Problem Statement**

### **Problem Statement (PS-1)**

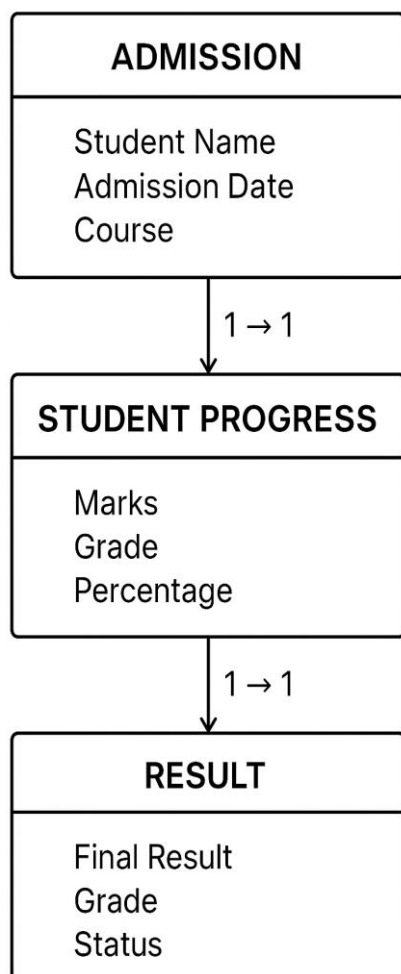
I am an educational administrator or school office staff, I’m trying to manage student admissions, maintain records, and generate grades efficiently, But manual data entry and paper-based management lead to errors, delays, and loss of data, Because there is no centralized automated

system to store and update student information, Which makes me feel frustrated, overworked, and uncertain about data accuracy.

### **Problem Statement (PS-2)**

I am a student or parent, I'm trying to submit admission details and check progress updates easily, But the current process requires multiple physical visits and manual form filling, Because the institution lacks a digital platform for admission and performance tracking, Which makes me feel inconvenienced and disconnected from the school's process.

### **Conceptual ER Diagram :**



## Empathy Map :

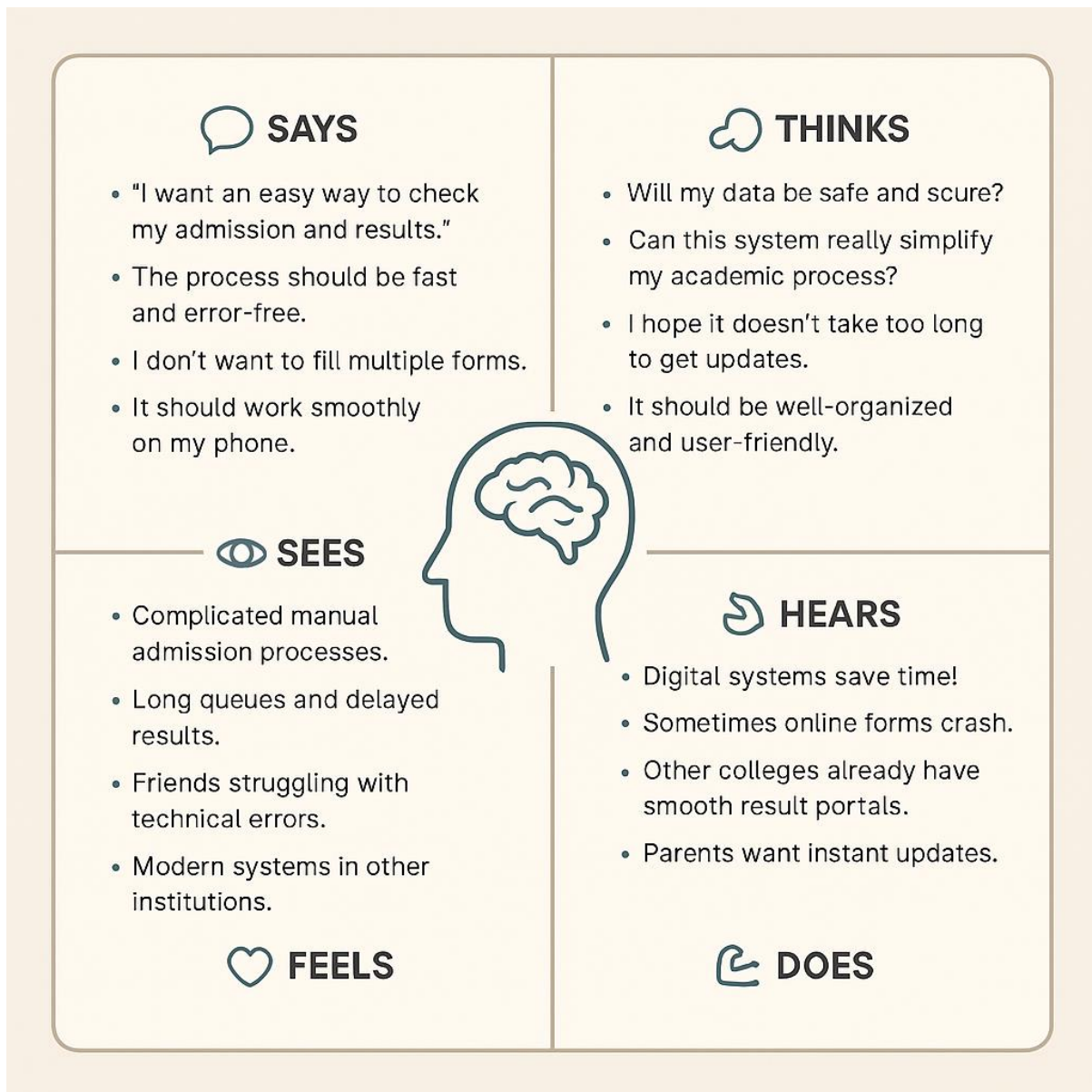


Figure 1.1-ServiceNow Developer Homepage

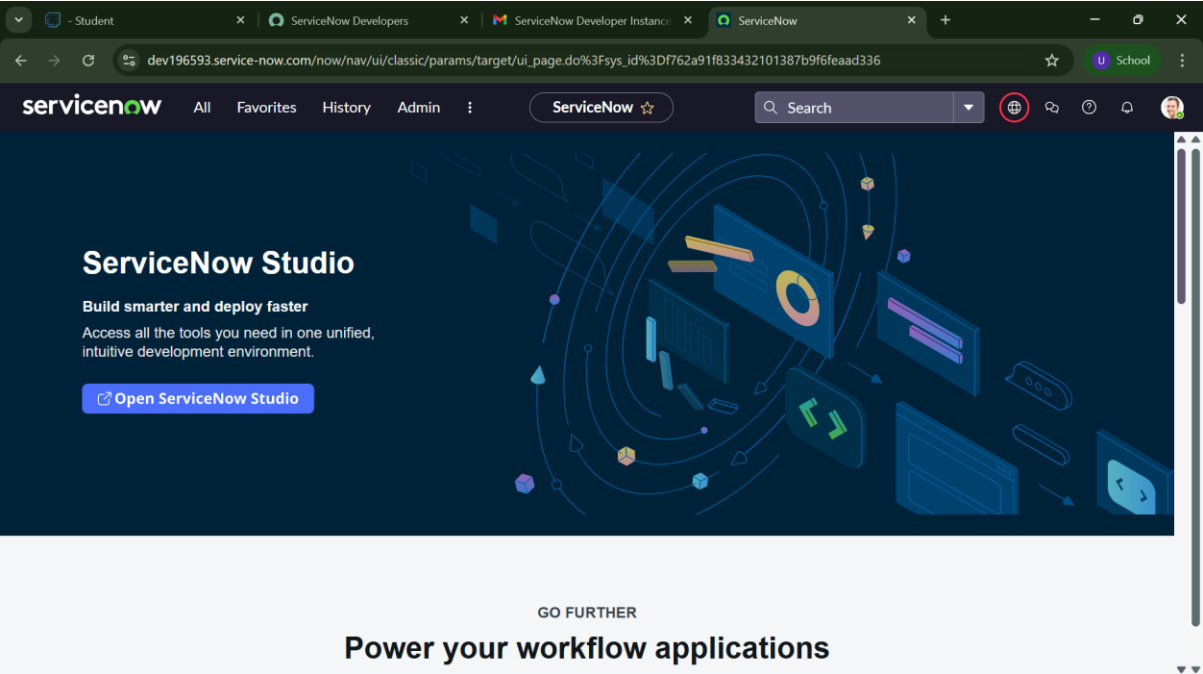
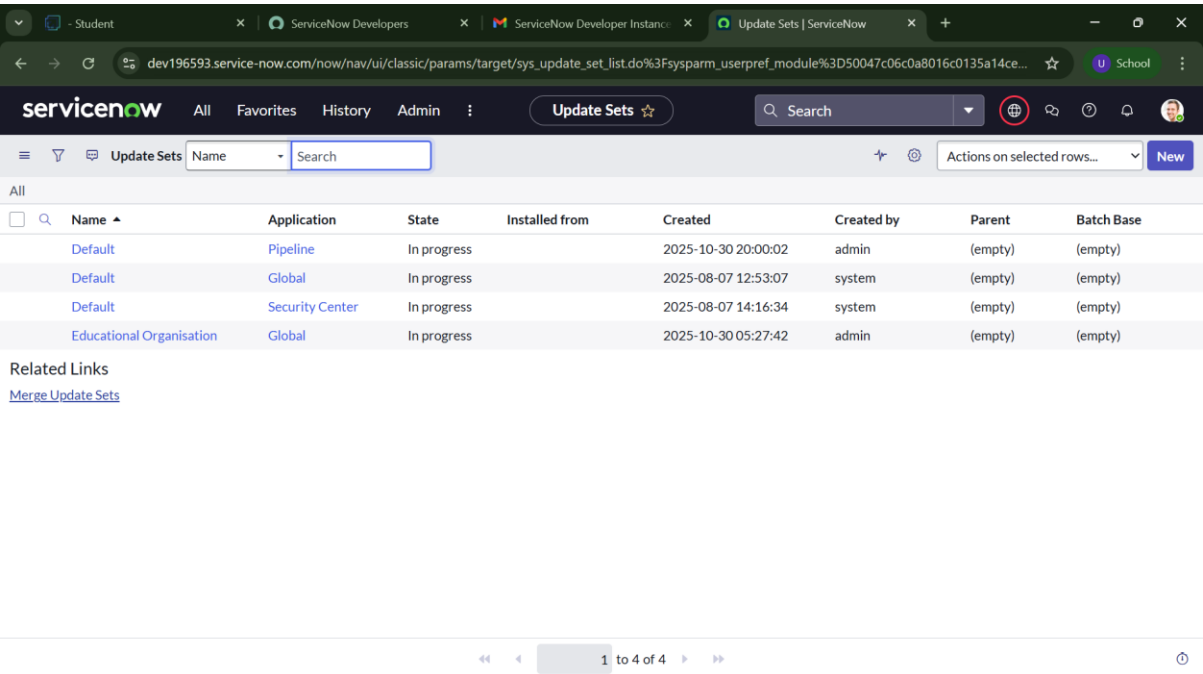


Figure 1.2 – Educational Organisation Application



## 2.PROJECT PLANNING

### Description :

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

### Key Planning Activities :

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

### Insights :

This phase gave a complete picture of how the project would proceed. It ensured smooth coordination between different modules and minimized errors during development. By the end of planning, the team had a clear workflow, timeline, and strategy for building the application successfully.



Figure 2.1 –Table Setup

dev196593.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3Dc98a2f40834d32101387b9f6feaad3b7%26sysparm...

servicenow All Favorites History Workspaces Admin Table - Salesforce

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

\* Label Salesforce

\* Name u\_salesforce

Application

Columns Controls Application Access

Table Columns Default value Search

Dictionary Entries

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...					

dev196593.service-now.com/now/nav/ui/classic/params/target/sys\_db\_object.do%3Fsys\_id%3D913def04834d32101387b9f6feaad3e4%26sysparm...

servicenow All Favorites History Workspaces Admin Table - Admission

\* Label Admission

\* Name u\_admission

Application

Columns Controls Application Access

Table Columns Default value Search

Dictionary Entries

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

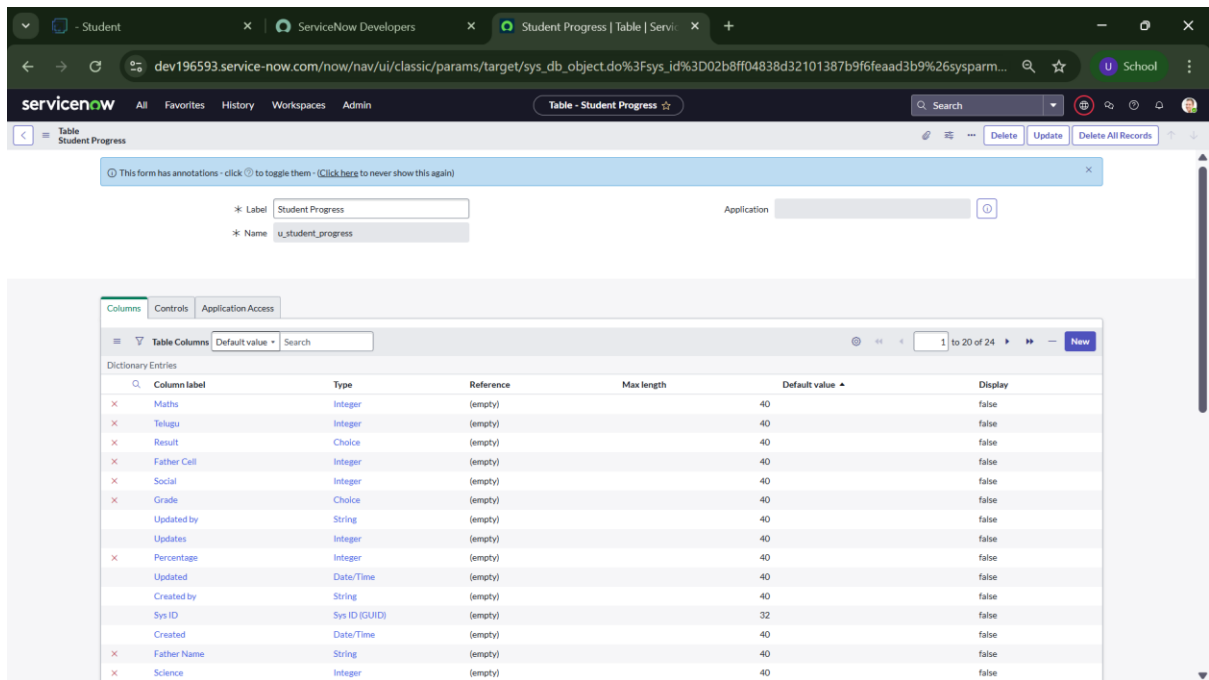
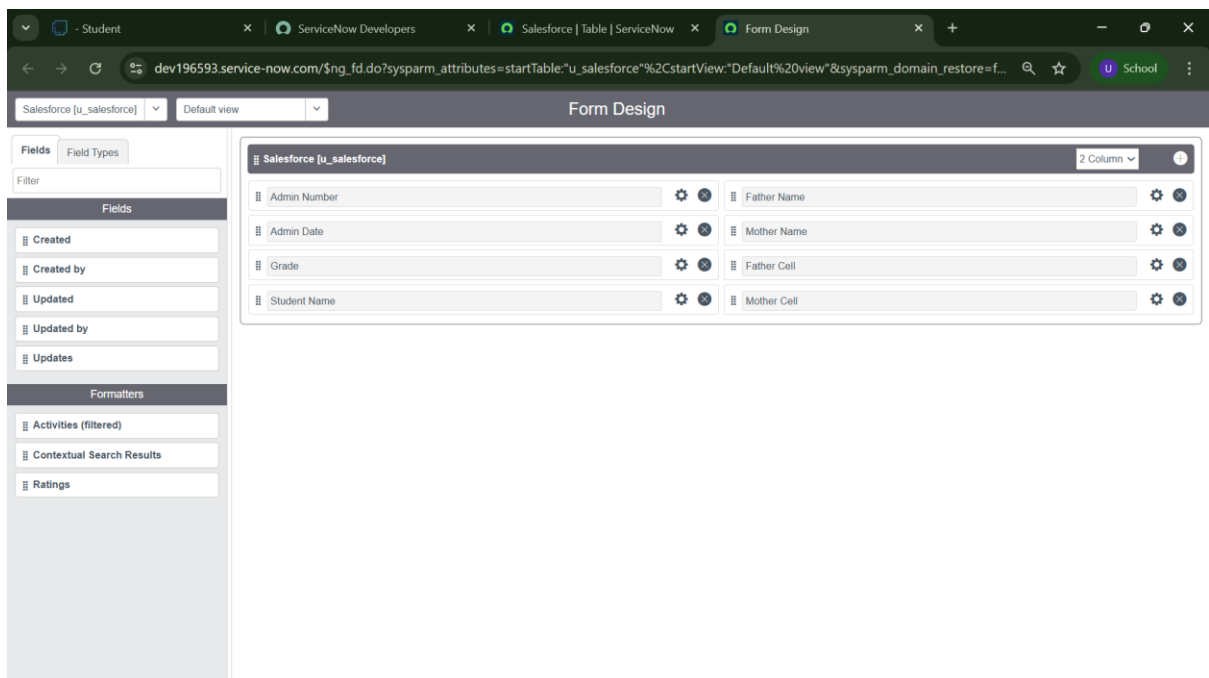


Figure 2.2-Form Setup





### 3.PROJECT DESIGN

#### 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.

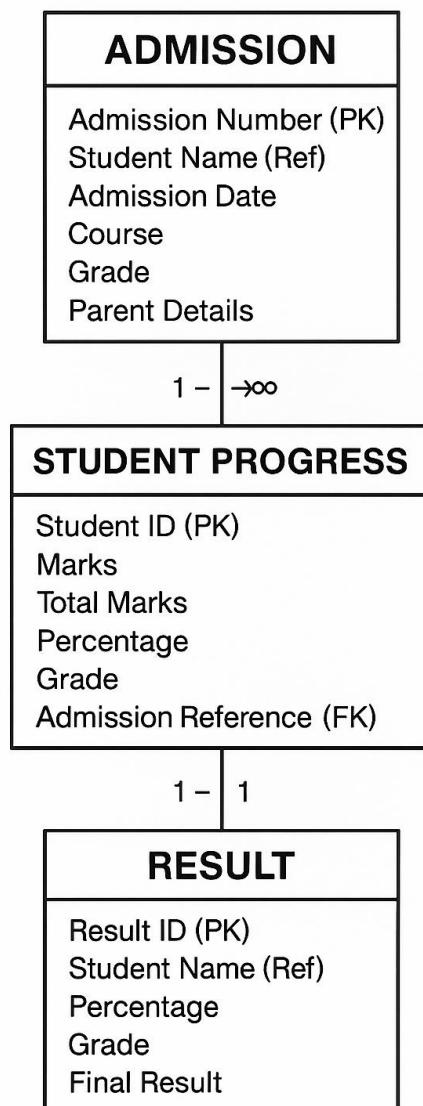
**Student Progress Table** :Fields: Student Name, Telugu,Hindi, English, Maths, Science, Social, Total, Percentage, Result to track subject marks and calculate percentage.

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

#### Idea Prioritization :

Priority	Idea	Reason
High	Test load speed with multiple admissions	Ensures scalability of the app
High	Validate grade and percentage accuracy	Maintains trust and reliability
Medium	Validate grade and percentage accuracy	Improves user satisfaction
Medium	Monitor auto-number generation under multiple entries	Ensures unique record IDs
Low	Visual testing of form alignment	Minor effect on overall performance

## ER Diagram :



## Insights :

The design phase transformed the project idea into a working structure. Tables, forms, and relationships were carefully designed to maintain a smooth data flow, creating a strong foundation for the implementation phase.

## Empathy Map :



Figure 3.1- List of Designed Forms

dev196593.service-now.com/now/nav/ui/classic/params/target/u\_salesforce.do%3Fsys\_id%3D-1

servicenow

All Favorites History Admin

Salesforce - Create SAL0001011

Search

U School

< ≡ Salesforce New record

Submit

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

Submit

dev196593.service-now.com/now/nav/ui/classic/params/target/u\_admission.do%3Fsys\_id%3D-1

servicenow

All Favorites History Admin

Admission - Create ADM0001007

Search

U School

< ≡ Admission New record

Submit

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

School Details

School Area	-- None --	School	-- None --
-------------	------------	--------	------------

Submit

ServiceNow

Student Progress - Create STU0001...

Admission Number

Grade

Student Name

Father Name

Mother Name

Father Cell

Mother Cell

Number

**Student Progress**

Telugu

Hindi

English

Maths

Science

Social

Total

Percentage

Result

Submit

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

ServiceNow

Client Script - Total Update

Name

Table

UI Type

Type

Field name

Application

Active ☒

Inherited ☐

Global ☒

Description

Messages

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 Client Script - Percentage

Name: Percentage

Table: Student Progress [u\_student\_progress]

UI Type: All

Type: onChange

Field name: Total

Application: [Application]

Active: ☒

Inherited: ☐

Global: ☒

Description:

Messages:

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  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 Client Script - Result

Name: Result

Table: Student Progress [u\_student\_progress]

UI Type: All

Type: onChange

Field name: Percentage

Application: [Application]

Active: ☒

Inherited: ☐

Global: ☒

Description:

Messages:

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    var a = parseInt(g_form.getValue('u_percentage')); // Convert the value to an integer for comparison
14
15    if(a >= 0 && a <= 50){
16      g_form.setValue('u_result', 'Fail');
17    } else if(a >= 60 && a <= 100) {
18      g_form.setValue('u_result', 'Pass');
19    } else {
20
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99
100
```

## **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

## System Requirements Overview :

### FUNCTIONAL REQUIREMENTS

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

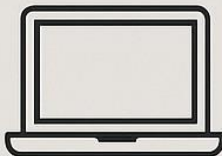
### NON-FUNCTIONAL REQUIREMENTS



- 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: Develop Instance
- Browser: Google Chrome

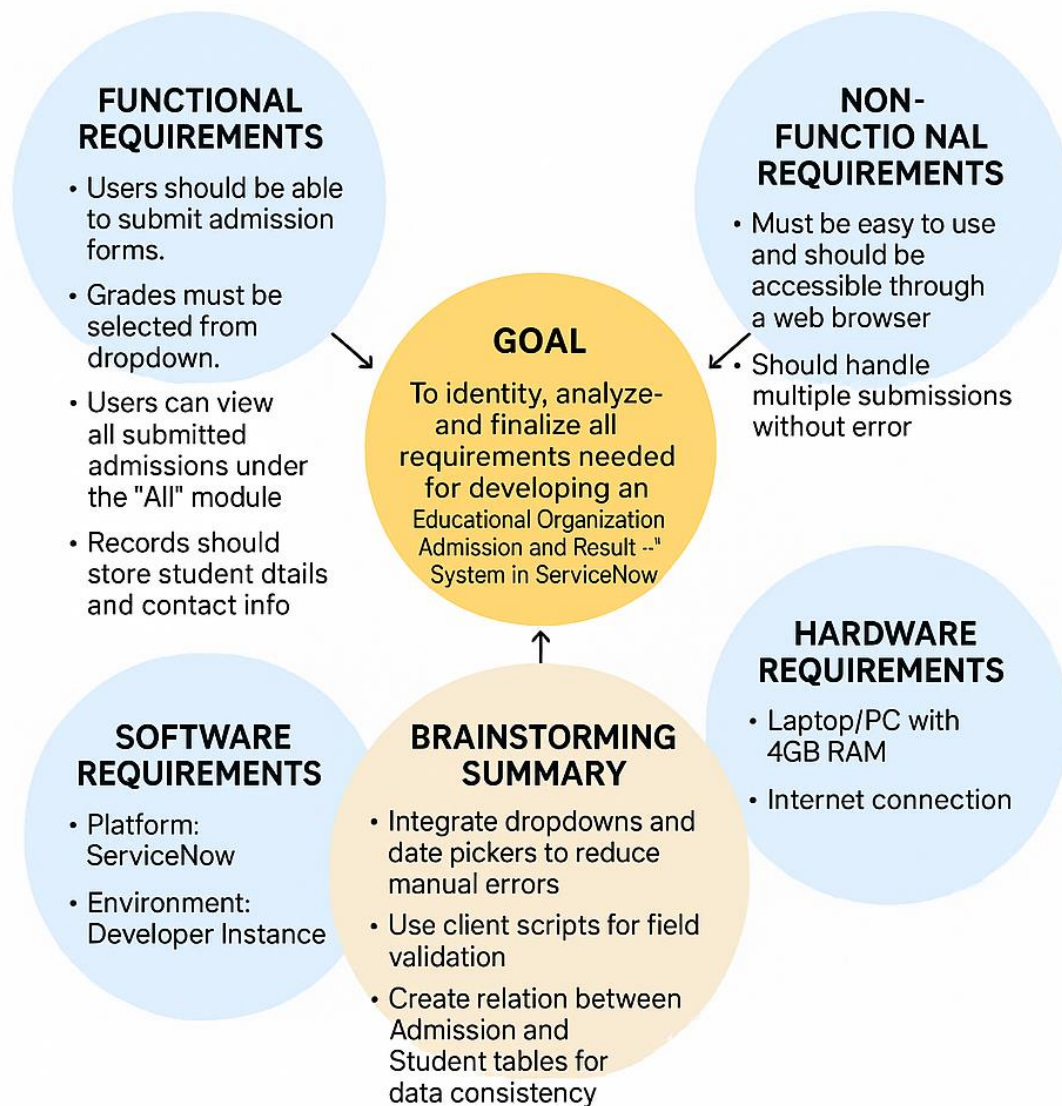


### HARDWARE REQUIREMENTS

- Laptop/PC with 4GB RAM
- Internet connection



## Brainstorming Chart :



## Insights :

The requirement analysis phase ensured all system needs—both functional and non-functional—were clearly identified. It confirmed that the ServiceNow environment, tools, and user needs were aligned to achieve the project's objectives efficiently.

## 5. Performance Testing Phase

### Description :

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

### Brainstorming – Performance Testing :

Step	Details
Step 1: 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.
Step 2: 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.
Step 3: 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.
Outcome	The app worked efficiently with fast responses and correct data calculations. All forms loaded quickly, and no errors or delays were found during testing.

## Empathy Map :

# EMPATHY MAP

### STEP 1

#### 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.



### STEP 2

#### 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.



### STEP 3

#### 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.



### OUTCOME



## Ensuring Speed, Stability, and Accuracy of the ServiceNow Application:

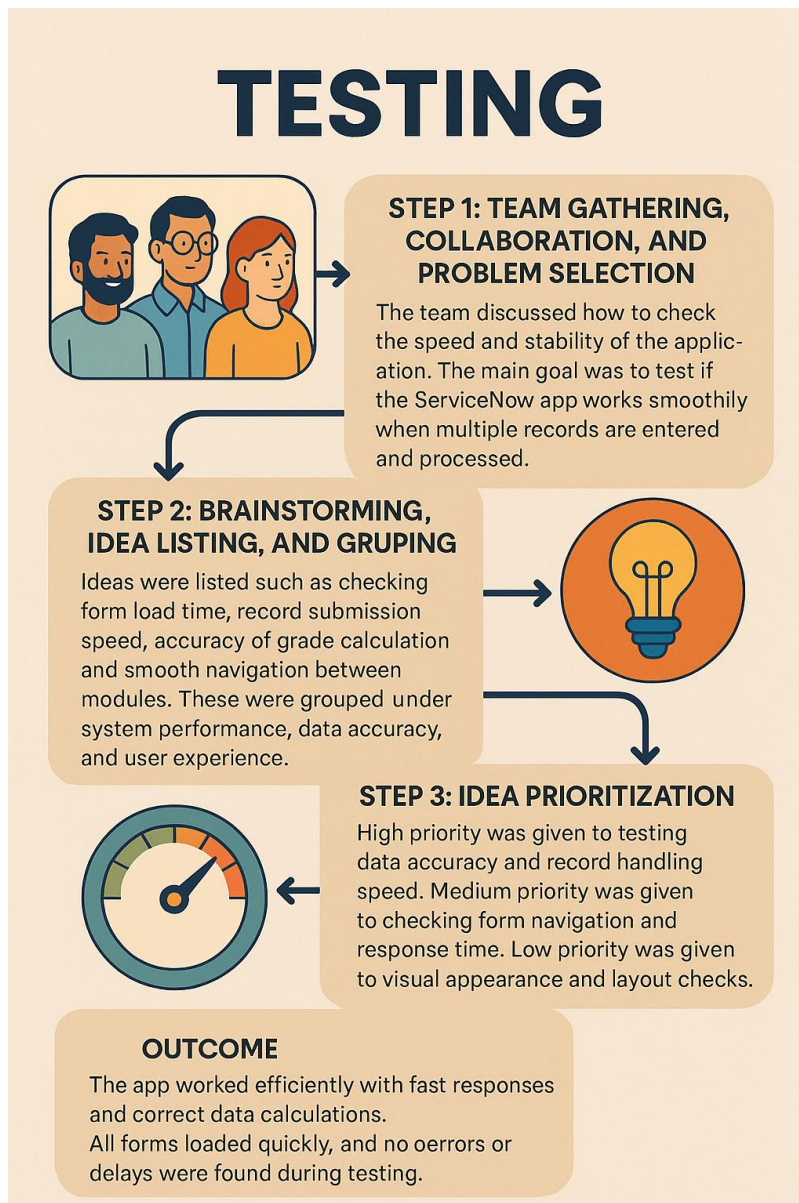


Figure 5.1-Execution

Student

ServiceNow Developers

Create SAL0001012 | Salesforce

dev196593.service-now.com/now/nav/ui/classic/params/target/u\_salesforce.do%3Fsys\_id%3D-1

Search

School

Salesforce - Create SAL0001012

Search

Submit

Salesforce

New record

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

Submit

Student

ServiceNow Developers

Create ADM0001008 | Admission

dev196593.service-now.com/now/nav/ui/classic/params/target/u\_admission.do%3Fsys\_id%3D-1

Search

School

Admission - Create ADM0001008

Search

Submit

Admission

New record

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

Admin status

Active

Comments

This is a student record

Number

ADM0001008

Pincode

863,459

School Details

School Area

T. Nagar

School

JHR Higher Secondary School

Submit



**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:   
 Percentage:   
 Result: -- None --

**Figure 5.2- Results**

**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



Number	Admission Number	English	Father Cell	Father Name	Grade	Hindi	Maths	Mother Cell	Mother Name
STU0001002	SAL0001010	79	2,147,483,533	Shankar	B	75	80	2,147,483,647	Rani
STU0001001	SAL0001006	90	2,147,483,647	John	A	75	78	2,147,483,647	Jesi
STU0001004	SAL0001012	93	2,147,483,647	Sanjay	A	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.

