



EDUCATIONAL ORGANIZATION USING SERVICE NOW

NAAN MUDHALVAN REPORT

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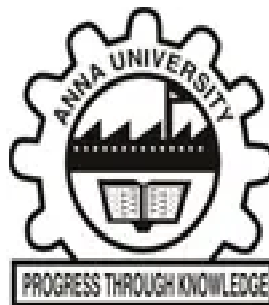
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BONAFIDE CERTIFICATE

Certified that this project report “**EDUCATIONAL ORGANIZATION USING SERVICE NOW**” is the Bonafide work of “**SURYA P (953422104086), THIRUMANI AKASH A (953422104091), BARATH K (953422104301), MARTIN J (953422104303), FRANCIS ASWIN J (953422104701)**” who carried out the naan mudhalvan project work under my supervision.

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EXTERNAL EXAMINER

INTERNAL EXAMINER

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EDUCATIONAL ORGANIZATION USING SERVICENOW

1. INTRODUCTION

1.1 PROJECT OVERVIEW

The project “Educational Organization Management using ServiceNow” aims to streamline academic and administrative processes within an educational institution by creating digital workflows on the ServiceNow platform. Educational organizations typically manage tasks such as student enrolment, staff requests, certificate applications, timetable updates, and issue reporting manually. These manual processes often involve paperwork, emails, delays, miscommunication, and lack of proper tracking.

Using ServiceNow, a powerful cloud-based workflow automation platform, this project introduces a centralized Service Portal where students, faculty, and administrative staff can access various academic services in one place. Users can submit requests such as ID card issuance, certificate applications, leave requests, or classroom maintenance issues. Each request is automatically routed to the appropriate department, with real-time tracking, approval workflows, and notifications.

This project demonstrates how ServiceNow’s Service Catalogue, Flow Designer, task workflow automation, and notifications can help educational institutions modernize their operations, reduce administrative workload, and provide transparent, student-friendly services.

1.2 PURPOSE

The purpose of this project is to automate core academic and administrative workflows in an educational organization using ServiceNow, improving both service

delivery and operational efficiency.

Objectives:

- Centralize all academic/administrative services.
- Automate routing to the correct department.
- Improve visibility of request progress.
- Reduce manual tasks and errors.
- Enable faster processing of student and faculty requests.

Benefits:

1. Improved Efficiency: Reduces paperwork and email follow-ups.
2. Transparency: Students and staff can track requests anytime via the Service Portal.
3. Faster Processing: Automatic approvals and escalations minimize delays.
4. Centralized Management: Administration can monitor all academic services in one dashboard.
5. Accurate Data Storage: All records are securely stored within ServiceNow.

The purpose of this project is to automate core academic and administrative workflows in an educational organization using ServiceNow, improving both service delivery and operational efficiency.

2. IDEATION PHASE

2.1 PURPOSE

Educational organizations often struggle with manual processes involving student services, certificate requests, teacher support, and maintenance tasks. The absence of an integrated digital system results in delays, lost forms, poor communication, and no proper tracking.

By using ServiceNow, we aim to automate student and staff service workflows, ensuring requests are digitally logged, routed to the right department, and resolved efficiently. This reduces workload on administrative departments and improves user experience across the institution.

2.2 EMPATHY MAP CANVAS

Who are we empathizing with?

- Students requesting academic and administrative services.
- Faculty needing support for teaching activities.
- Administrative staff processing student and staff requests.

Goals:

- Easy access to services.
- Quick approvals and responses.
- Transparent tracking and historical records.

Pain Points:

- Manual forms and repeated follow-ups.
- Delayed responses.
- No central service portal.
- Poor visibility into request status.

Needs:

- Self-service portal for students and staff.
- Automated workflows.
- Real-time updates and notifications.
- Transparent escalation paths.

Empathy Map Summary:

Understanding the needs of students, faculty, and administrator's helps design a user-friendly digital system that minimizes workload, speeds up processes, and enhances satisfaction across the organization.

2.3 BRAINSTORMING

Ideas Generated:

- Create a Service Catalogue titled “Educational Services Portal.”
- Catalogue items could include:
 - Bonafide certificate request
 - ID card request
 - Fee payment enquiry
 - Hostel request
 - Maintenance issue reporting
 - Faculty leave request
- Build Flow Designer workflows for approvals and task assignments.
- Configure email/SMS notifications.
- Admin dashboard for monitoring open requests.

Key Questions:

1. What services should be prioritized for automation?
2. Who approves different types of requests—HOD, Principal, Admin?
3. Should requests include attachments such as documents?

Should academic records sync with other systems?

3. REQUIREMENT PHASE

3.1 OBJECTIVE

To design and implement a centralized Educational Services Portal in ServiceNow that automates the end-to-end service delivery process for students and faculty.

Current Challenges:

- Manual form submissions.
- No centralized tracking system.
- Delayed communication between departments.

Expected Outcomes:

- Unified Service Catalogue for academic/administrative services.
- Automated approvals for high-volume requests.
- Department-based routing.
- Improved turnaround time (TAT).
- Enhanced user satisfaction.

Scope:

- Catalogue item creation for student and staff services.
- Approval workflows via Flow Designer.
- Role-based notifications and escalations.
- Service Portal enablement.
- Tracking and reporting dashboards.

Stakeholders:

1. Students
2. Faculty
3. Department Heads (Approvers)
4. Administrative Staff (Fulfillers)
5. IT Team (System Maintenance)

Success Metrics:

- 80% reduction in paperwork.
- Faster approvals by at least 50%.
- 100% visibility into service progress.
- Improved SLA compliance.

3.2 SOLUTION REQUIREMENTS**Functional Requirements:**

- Create service catalogue items for educational services.
- Automated approval workflows (e.g., HOD → Admin).
- Notifications at each stage.
- Ability to upload required documents.
- Dashboards for monitoring.

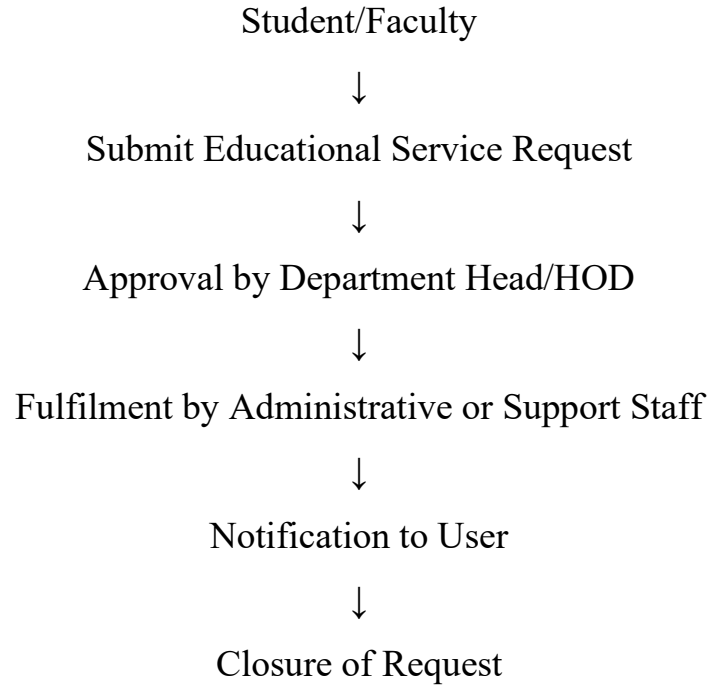
Non-Functional Requirements:

- Responsive design for mobile and desktop.
- 24/7 availability via portal.
- Secure access with student/faculty authentication.

Technical Requirements:

- Use modules: Service Catalogue, Flow Designer, Notifications.
- Integrate with User, Approval, and Task tables.
- Configuration via update sets for migration.

3.3 FLOW DIAGRAM



3.4 TECHNOLOGY STACK

- **Platform:** ServiceNow ITSM
- **Automation:** Flow Designer, Business Rules
- **Notifications:** Email/Portal Messages
- **Scripting:** JavaScript
- **Security:** ACLs, Roles

4. PROJECT DESIGN

4.1 TECHNOLOGY STACK

- ServiceNow ITSM
- Flow Designer workflows
- Email notifications

- Service Catalogue items
- Admin dashboards

4.2 PROPOSED SOLUTION

The solution provides a digital education services portal where students and faculty can submit their requests. Each request is validated, routed for approval, and fulfilled by the appropriate department.

Benefits:

- Reduced workload for administrative staff.
- Enhanced transparency for students and faculty.
- Faster processing with automated workflows.
- Clear audit logs for compliance.
- Scalable across multiple departments.

4.3 SOLUTION ARCHITECTURE

1. Identify required user roles.
2. Design Service Catalogue items.
3. Build workflows using Flow Designer.
4. Configure approvals and notifications.
5. Test end-to-end service flow.
6. Publish on Service Portal.

5. PROJECT PLANNING & SCHEDULING

Phase	Duration
Requirement Analysis	1 Hour
Catalogue Item Creation	2 Hours
Workflow Development	3 Hours
Notification Setup	1 Hour
Role Configuration	45 Minutes
Testing & Debugging	2 Hours
Documentation	1 Hour

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 PERFORMANCE TESTING

- Evaluate portal load time.
- Check workflow execution speed.
- Test concurrent user requests.
- Validate system stability during peak hours.

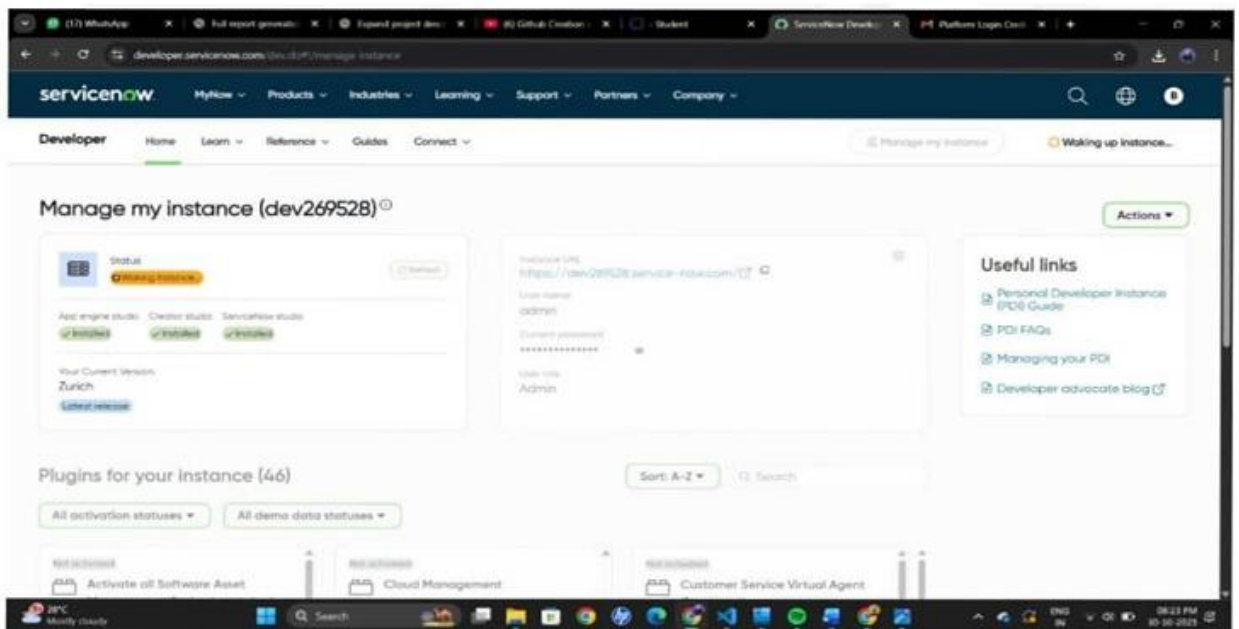
6.2 FUNCTIONAL TESTING

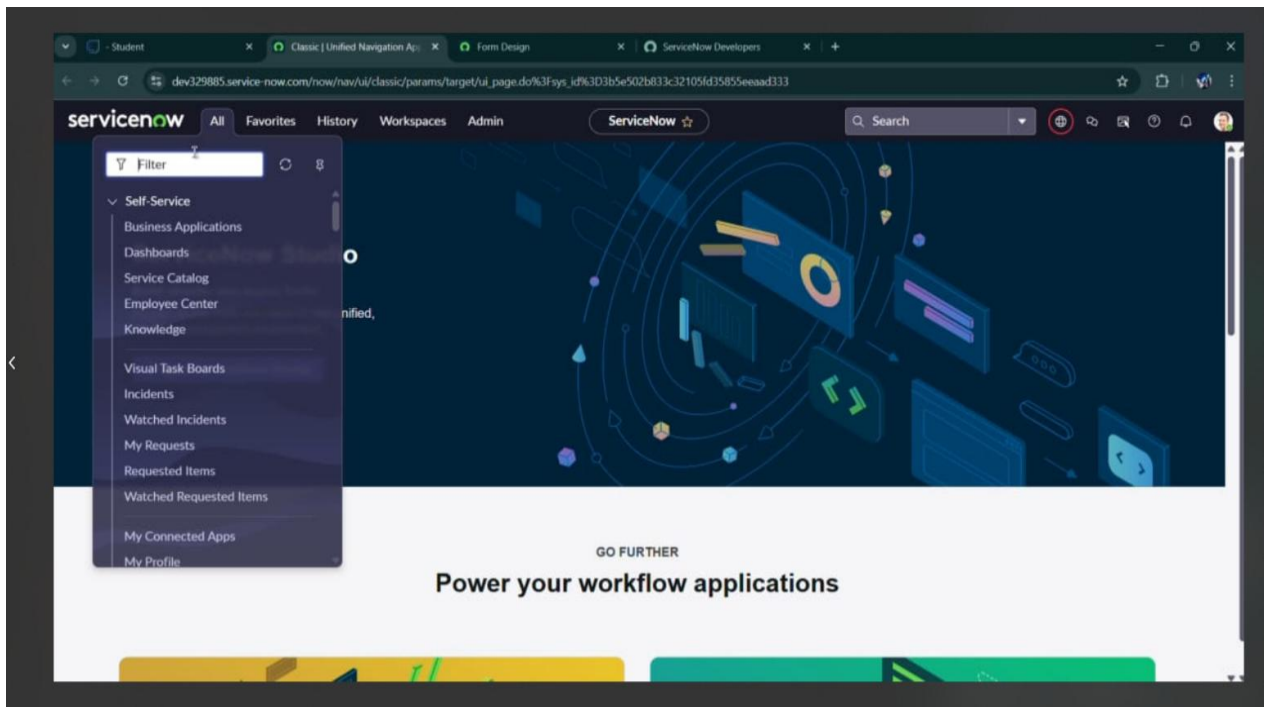
- Validate catalogue fields and mandatory inputs.
- Verify approval routing paths.
- Confirm notifications at every stage.
- Ensure tasks reach the correct fulfiller.
- Validate final closure and feedback options.

7. RESULT

- ServiceNow Instance Setup
- Creation of Update Set
- Creating A Table
- Form Design
- Number Maintenance
- Process Flow
- Client Script
- Result

1. SETTING UP SERVICE NOW INSTANCE





2. CREATION OF NEW UPDATE SET

The screenshot shows the 'Update Sets' list page in ServiceNow. The table below lists the update sets:

Name	Application	State	Installed from	Created	Created by	Parent	Batch Base
Default	Now Assist Troubleshooting	In progress		2025-06-26 00:11:31	admin	(empty)	(empty)
Default	Global	In progress		2025-06-25 22:14:10	system	(empty)	(empty)
Default	Security Center	In progress		2025-06-26 00:10:48	system	(empty)	(empty)
Default	Pipeline	In progress		2025-09-30 22:20:26	system	(empty)	(empty)
Educational Organisation	Global	In progress		2025-11-06 21:30:33	admin	(empty)	(empty)
Educational Organisation	Global	In progress		2025-11-06 21:31:26	admin	(empty)	(empty)
Educational Organisation 2	Global	In progress		2025-11-06 21:32:30	admin	(empty)	(empty)
Educational Organisation 3	Global	In progress		2025-11-06 22:14:06	admin	(empty)	(empty)

Related Links
[Merge Update Sets](#)

Page 1 to 8 of 8

ServiceNow Update Set - Educational Organisation

Name: Educational Organisation

State: In progress

Parent:

Release date:

Install date:

Installed from:

Description:

Application: Global

Created: 2025-11-06 21:30:33

Created by: admin

Merged to:

Update

Related Links

Merge With Another Update Set

Scan Update Set

Customer Updates (299) Update Set Logs Child Update Sets Install History

Created + Search

Update set = Educational Organisation

Created	Type	View	Target name	Updated by	Remote update set	Action
2025-11-08 01:05:06	Application Menu		Admission	admin	(empty)	INSERT_OR_UPDATE

3. CREATING A TABLE

ServiceNow Tables

All > Update name is not empty

Label	Name	Extends table	Extensible	Updated
NET Application	cnmdb_ci_app_dot_net	Application	false	2025-06-25 22:06:00
A/B Testing Evaluation	evaluation	(empty)	false	2025-06-25 21:59:00
A/B Testing Evaluation Execution	evaluation_execution	(empty)	false	2025-06-25 21:59:00
A/B Testing Evaluation Parameter	evaluation_parameter	(empty)	false	2025-06-25 21:59:00
A/B Testing Evaluation Parameter Result	evaluation_parameter_result	(empty)	false	2025-06-25 21:59:00
A30 Load Balancer	cnmdb_ci_lb_a30	Load Balancer	false	2025-06-25 22:05:48
Access Analyzer Query	sn_access_analyzer_request	(empty)	false	2025-06-25 23:19:30
Access Comparison Request	sn_access_analyzer_access_comparison_req...	(empty)	false	2025-06-25 23:19:29
Access Control	sys_security_acl	Application File	false	2025-06-25 21:54:03
Access Result	sn_access_analyzer_access_result	(empty)	false	2025-06-25 23:19:30
Access Rules	sys_security_acl_rule	Application File	false	2025-06-25 21:54:03
Accessory	cnmdb_ci_acc	Configuration Item	false	2025-06-25 22:06:03
Account level entitlements	sn_sub_main_st_account_level_entitlement	(empty)	false	2025-06-25 23:00:07
Account Subscription Entitlement	account_subscription_entitlement	(empty)	false	2025-06-25 22:59:57
ACE	cnmdb_ci_lb_ace	Load Balancer	false	2025-06-25 22:05:24
ACL Endpoint	cnmdb_ci_endpoint_acl	Endpoint	false	2025-06-25 22:03:20

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dev329885.service-now.com/now/nav/ui/classic/params/target/sys_db_object_list.do%3Fsysparm_query%3Dsys_update_name%5BNOTEMPTY%255ElabelSTARTSWITHadmis%26sysparm_first_row...

servicenow All Favorites History Workspaces Admin Tables Search

Table Admission

* Label Admission

* Name u_admission

Extends table Salesforce

Application Global

Create module ☒

Create mobile module ☒

Add module to menu -- Create new --

New menu name

Remote Table ☐

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
City	String	(empty)	40		false
Updated	Date/Time	(empty)	40		false
House No	String	(empty)	40		false
Class	String	(empty)	40		false
Father Name	String	(empty)	40		false
Sys ID	Sys ID (GUID)	(empty)	32		false

dev329885.service-now.com/now/nav/ui/classic/params/target/sys_db_object.do%3Fsys_id%3Db18172c68385b2105d35855eead31f%26sysparm_record_target%3Dsys_db_object%26sysparm...

servicenow All Favorites History Workspaces Admin Table - Student Progress Search

Table Student Progress

* Label Student Progress

* Name u_student_progress

Application Global

Remote Table ☐

Columns Controls Application Access

Table Columns for text Search

Dictionary Entries

Column label	Type	Reference	Max length	Default value	Display
Grade	String	(empty)	40		false
Hindi	String	(empty)	40		false
Admission Number.Father Name	String	(empty)	40		false
Admission Number.Mother Cell	String	(empty)	40		false
Result	String	(empty)	40		false
Created by	String	(empty)	40		false
Social	String	(empty)	40		false
Maths	String	(empty)	40		false
Telugu	String	(empty)	40		false
Admission Number.Mother Number	String	(empty)	40		false

4. FORM DESIGN

This screenshot shows the ServiceNow Form Designer interface for the 'Student Progress' table. The left sidebar contains a 'Fields' list with standard fields like 'Created', 'Created by', 'Grade', 'Social', 'Updated', 'Updated by', and 'Updates'. Below this is a 'Formatters' section with 'Activities (filtered)', 'Contextual Search Results', and 'Ratings'. The main workspace is titled 'Form Design' and shows a form layout for 'Student Progress [u_student_progress]'. It features a '2 Column' layout with fields for 'Hindi', 'Telugu', 'Result', 'Total', 'Maths', 'Percentage', 'English', and 'Science'. Below this is a 'New Section' with a '1 Column' layout containing an 'Admission Number' field and a placeholder 'Drag content, drop it here'.

This screenshot shows the ServiceNow Form Designer interface for the 'Admission' table. The left sidebar contains a 'Fields' list with fields like 'Admin Status', 'Class', 'Created', 'Created by', 'Updated', 'Updated by', and 'Updates'. Below this is a 'Formatters' section with 'Activities (filtered)', 'Contextual Search Results', and 'Ratings'. The main workspace is titled 'Form Design' and shows a form layout for 'Admission [u_admission]'. It features a '2 Column' layout with fields for 'Admin Number', 'Mother Cell', 'Admission Number', 'Father Cell', 'Mother Name', 'Admin Date', 'Fee', 'Father Name', 'Purpose of join', 'Student Name', 'Grade', and 'Address'. Below this is a 'New Section' with a '2 Column' layout containing a 'Comments' field and a placeholder 'Drag content, drop it here'.

The screenshot shows the ServiceNow Form Designer interface for a form titled "Student Progress [u_student_progress]". The interface is divided into several sections:

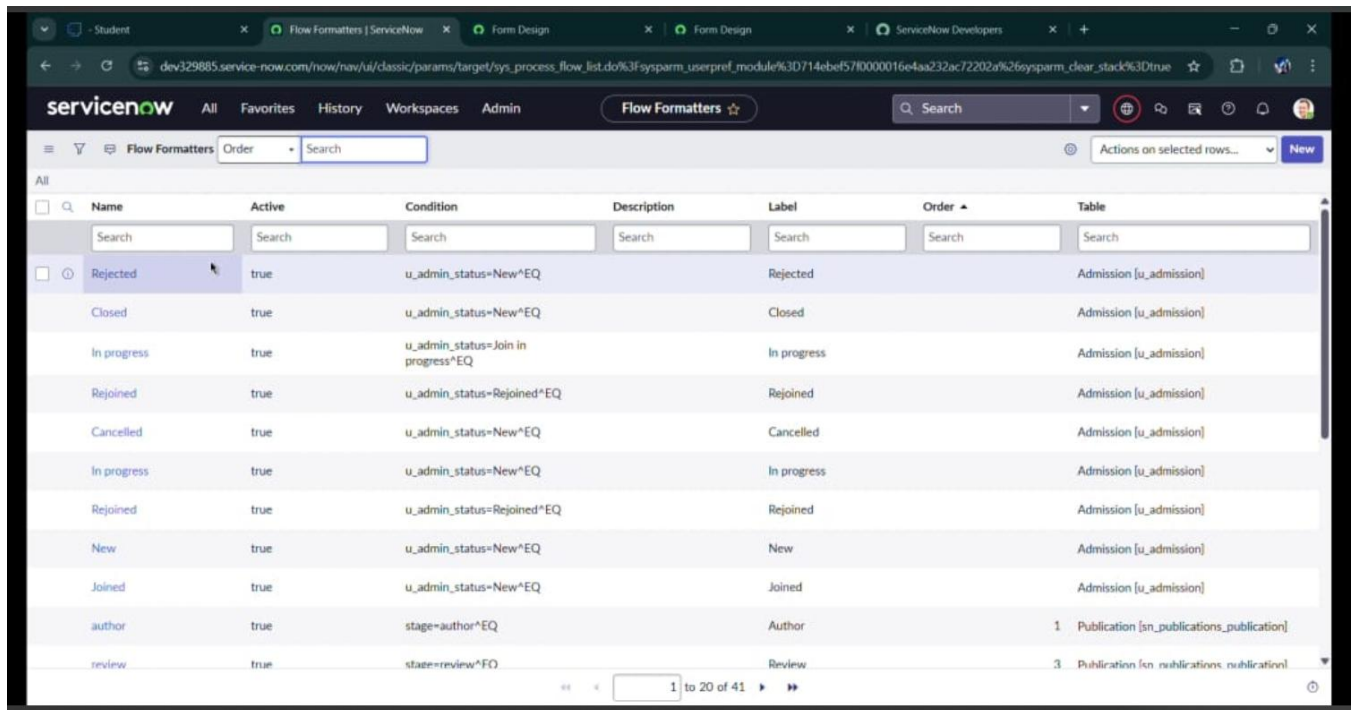
- Left Panel:** Contains a "Fields" section with a list of fields including "Created", "Created by", "Grade", "Social", "Updated", "Updated by", and "Updates". Below this is a "Formatters" section with "Activities (filtered)", "Contextual Search Results", and "Ratings".
- Main Canvas:** Displays the form layout. It includes a header section with fields for "Hindi", "Telugu", "Result", "Total", "Maths", "Percentage", "English", and "Science". Below this is a "New Section" with a "2 Column" layout, containing an "Admission Number" field and a placeholder "Drag content, drop it here". At the bottom, there is a "1 Column" section with fields for "Admission Number Father Cell", "Admission Number Mother Cell", "Admission Number Mother Number", "Admission Number Student Name", "Admission Number Grade", and "Admission Number Father Name".
- Top Bar:** Shows the "Form Design" tab and a "Submit" button.

5. NUMBER MAINTENANCE

The screenshot shows the ServiceNow UI Action configuration page for a new record. The page is titled "UI Action - New Record" and includes a "Submit" button. The configuration is as follows:

- Name:** Reset Form
- Table:** Shopping Cart [sc_cart]
- Order:** 100
- Action name:** Reset Form
- Active:** ☒
- Show insert:** ☒
- Show update:** ☒
- Client:** ☒
- List v2 Compatible:** ☒
- List v3 Compatible:** ☐
- Overrides:** (Searchable text field)
- Messages:** (Text area)
- Application:** Global
- Form button:** ☐
- Form context menu:** ☐
- Form link:** ☐
- Form style:** -- None --
- List banner button:** ☐
- List bottom button:** ☐
- List context menu:** ☐
- List choice:** ☐
- List link:** ☐
- List style:** -- None --

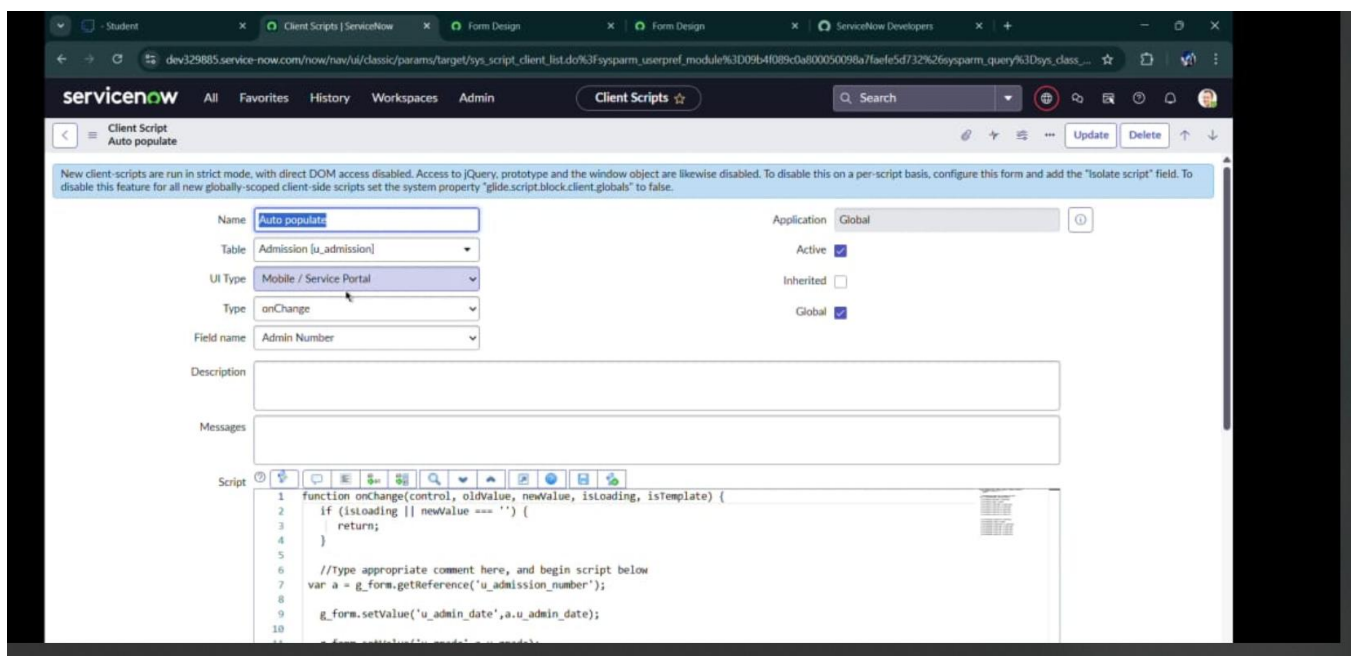
6. PROCESS FLOW



The screenshot shows the ServiceNow Flow Formatters interface. The table lists various formatters with their names, active status, conditions, descriptions, labels, and associated tables.

Name	Active	Condition	Description	Label	Order	Table
Rejected	true	u_admin_status=New*EQ		Rejected		Admission [u_admission]
Closed	true	u_admin_status=New*EQ		Closed		Admission [u_admission]
In progress	true	u_admin_status=Join in progress*EQ		In progress		Admission [u_admission]
Rejoined	true	u_admin_status=Rejoined*EQ		Rejoined		Admission [u_admission]
Cancelled	true	u_admin_status=New*EQ		Cancelled		Admission [u_admission]
In progress	true	u_admin_status=New*EQ		In progress		Admission [u_admission]
Rejoined	true	u_admin_status=Rejoined*EQ		Rejoined		Admission [u_admission]
New	true	u_admin_status=New*EQ		New		Admission [u_admission]
Joined	true	u_admin_status=New*EQ		Joined		Admission [u_admission]
author	true	stage=author*EQ		Author	1	Publication [sn_publications_publication]
review	true	state=review*EQ		Review	3	Publication [sn_publications_publication]

7. CLIENT SCRIPT



The screenshot shows the ServiceNow Client Scripts interface. The configuration for a client script named 'Auto populate' is displayed. The script is active and global, with a type of 'onChange' and a field name of 'Admin Number'. The script code is as follows:

```
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   var a = g_form.getReference("u_admission_number");
8   g_form.setValue('u_admin_date', a.u_admin_date);
9 }
10
```

servicenow All Favorites History Workspaces Admin Client Scripts Search

Client Scripts for text Search Actions on selected rows... New

All > Class = Client Script

Name	Active	Table	Application	View	Type	Updated
Maximum Duration Range Check	true	Transaction Quota Rule [sysrule_quota]	Global		onChange	2012-05-30 14:47:01
Create default value	true	Response Template Channel [sn_templated_snip_channel]	Templated Snippets		onChange	2020-09-22 17:06:27
Show overlap field based on data labels	true	Widgets [pa_widgets]	Global		onChange	2021-04-23 02:59:51
Set protocol based on auth type	false	HTTP(s) Connection [http_connection]	Global		onChange	2017-06-02 15:49:24
Set default values for OIDC PKCE flow	true	OAuth OIDC Entity [oauth_oidc_entity]	Global		onChange	2020-02-28 00:59:58
Make notification read only	true	Additional Notification Recipients [sys_notification_recipient]	Global		onLoad	2021-02-05 22:42:13
Deprecated - SN - Make serial number man	false	Asset [alm_asset]	Global		onChange	2025-03-06 00:42:54
Validate StatefulSet Name	true	MID KBs Deployment Request [mid_kbs_deployment]	Global		onChange	2022-10-09 23:18:07
Set Use current record if delete	true	Action item [sys_sg_write_back_action_item]	Global		onChange	2019-04-14 07:30:02
Warning when no destination type enabled	true	Notification [sys_notification]	Global		onLoad	2021-05-13 04:51:51

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servicenow All Favorites History Workspaces Client Script - Disable Fields Search

Client Script Disable Fields Update Delete

Script

```

1 function onLoad() {
2   //Type appropriate comment here, and begin script below
3   g_form.setDisabled('u_total',true);
4   g_form.setDisabled('u_percentage',true);
5   g_form.setDisabled('u_result',true);
6 }
7
8
9
10
11
12

```

Isolate script ☒

Update Delete

Related Links
Run Point Scan

Versions Recorded at Search Actions on selected rows... New

Name	Recorded at	State	Source	Reverted from
sys_script_client_396a3a0a83c5b2105fd35855eead36a	2025-11-07 20:47:19	Current	Update Set: Educational Organisation	(empty)

8. RESULT

The screenshot shows the ServiceNow interface for configuring a Client Script. The browser tabs include 'Student', 'Client Scripts | ServiceNow', 'Form Design', and 'ServiceNow Developers'. The URL is `dev329885.service-now.com/now/nav/ui/classic/params/target/sys_script_client_list.do%3Fsysparm_query%3Dsys_class_name%253Dsys_script_client%255EnameSTARTSWITHresult%26sysparm...`. The page title is 'Client Scripts' with a star icon. The breadcrumb trail is 'Client Script' > 'Result'. The script configuration details are as follows:

Field	Value
Name	Result
Table	Student Progress [u_student_progress]
UI Type	All
Type	onChange
Field name	
Description	
Messages	
Script	<pre>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</pre>
Isolate script	<input checked="" type="checkbox"/>

On the right side, the 'Application' is set to 'Global'. The 'Active' checkbox is checked, 'Inherited' is unchecked, and 'Global' is checked. The 'View' field is empty.

8. CONCLUSION

The “Educational Organization Management using ServiceNow” project successfully demonstrates how academic and administrative services can be centralized, automated, and delivered more efficiently through a modern digital platform. By replacing traditional paper-based and email-driven processes with ServiceNow workflows, the institution gains improved transparency, faster response times, and a significant reduction in manual effort. Students and faculty benefit from a user-friendly self-service portal, real-time tracking, and consistent communication, while administrative teams gain better control over approvals, task assignments, and service monitoring. The implementation ensures accuracy, accountability, and scalability, making it suitable for institutions of any size. Overall, the project enhances operational efficiency, strengthens service quality, and supports a more digitally empowered educational environment.

9. FUTURE SCOPE

- Integration with Student Information Systems (SIS)
- Development of a dedicated mobile application
- Implementation of AI-based chatbot/Virtual Agent
- Automatic generation of certificates and documents
- Advanced analytics and reporting dashboards
- Addition of more academic and administrative services
- Integration with external systems such as payment and hostel management
- Enhanced security and detailed role-based access controls

10. APPENDIX

- **A. ServiceNow Instance Details**

Includes information about the instance URL, version, and configurations used during the project.

- **B. List of Catalogue Items Created**

Contains the complete list of academic and administrative service items added to the portal.

- **C. Workflow Diagrams**

Visual representations of approval flows and fulfilment processes designed using Flow Designer.

- **D. Variable and Field Definitions**

Detailed description of all variables, field types, and mandatory requirements used in catalogue items.

- **E. Role and Permission Mapping**

Complete mapping of roles such as Student, Faculty, HOD, and Admin with their access privileges.

- **F. Notification Templates**

Sample email and portal notifications configured for request submission, approval, rejection, and closure.

- **G. Test Cases and Validation Logs**

Documentation on scenarios tested, test results, and issues identified during testing.

- **H. Update Set Export Details**

Information on the update set exported, including captured customizations and migration notes.