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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING NM PROJECT

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## BONAFIDE CERTIFICATE

Certified that this project report Education and Organisation using Service Now is the bonafide work of \_\_\_\_\_

\_\_\_\_\_ 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.

Signature

INTERNAL EXAMINER

EXTERNAL EXAMINER

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# Education and Organisation using Service Now

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## Abstract

The abstract gives a short overview of the entire report.

Service Now is a cloud-based platform that helps automate workflows, manage services, and improve efficiency in both educational institutions and organizations. The report highlights how Service Now can be applied to automate processes like student support, administrative workflows, HR operations, and IT services. It also examines benefits, challenges, and the future potential of Service Now in digital transformation. It focuses on access control mechanisms and workflow designs that enhance security, efficiency, and accountability. By understanding the structure and behaviour of modern access control systems, institutions can ensure that privileges are appropriately granted, workflows are streamlined, and system misuse is minimized. This report provides a conceptual framework suitable for both academic understanding and practical organizational application.

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## 1. Introduction

In the modern digital era, both educational institutions and organizations are increasingly dependent on efficient service management systems to ensure smooth day-to-day operations. With the growing number of administrative tasks, student and employee requests, and IT-related services, managing these processes manually often leads to delays, miscommunication, and inefficiencies. Traditional systems, which rely heavily on paper-based workflows or scattered software tools, struggle to keep pace with the dynamic needs of today's environment.

Service Now, a cloud-based service management platform, provides a solution to these challenges by offering a unified system that integrates various workflows into a single digital environment. It helps automate repetitive tasks, streamline communication between departments, and provide real-time visibility into processes. By doing so, it reduces administrative overhead and enhances the user experience for students, staff, and employees alike.

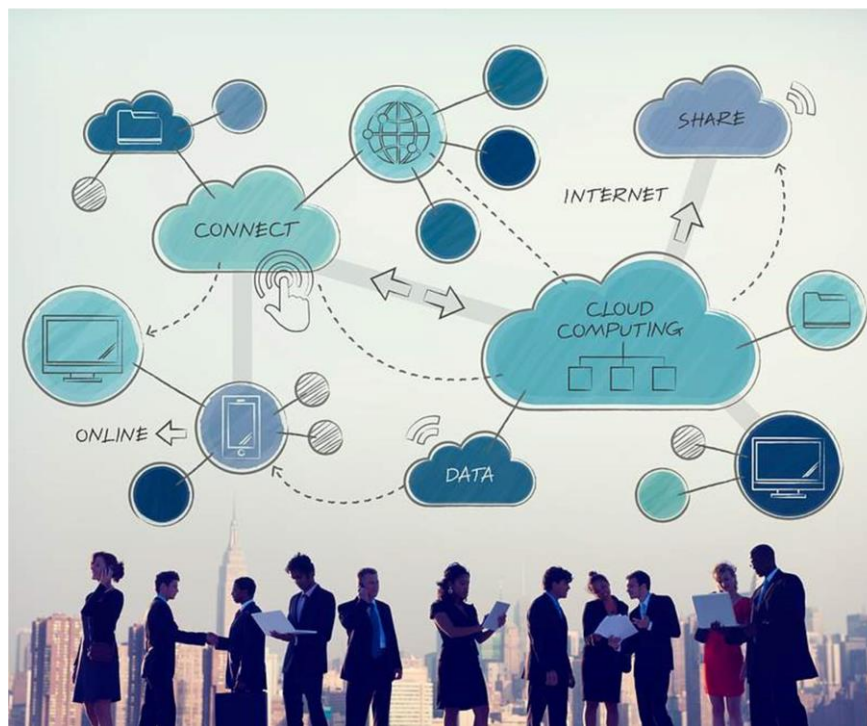


Figure 1.1: Digital Transformation Overview

## 1. Objectives and Scope

Every research or analytical report requires clearly defined objectives to provide direction and focus. The objectives act as a roadmap that guides the study toward meaningful conclusions. This report aims to explore and analyse how Service Now, as a modern service management platform, can be effectively utilized within both educational and organizational environments to improve efficiency, transparency, and workflow automation.

The key objectives of this study are outlined below:

1. To study how Service Now supports service automation in education and organizations  
This objective focuses on understanding how Service Now automates routine processes such as student services, faculty management, human resources, and IT operations. The goal is to examine how automation minimizes manual intervention, reduces errors, and enhances service delivery efficiency.
2. To analyse workflow management and its benefits  
Workflow management plays a vital role in the coordination of tasks, approvals, and communication between departments. This study seeks to analyse how Service Now's workflow engine structures these processes to ensure faster decision-making, improved accountability, and consistent task completion.
3. To identify challenges in implementing Service Now  
While Service Now offers numerous benefits, it also presents certain challenges such as high setup costs, user adaptation, and integration complexities. This objective aims to identify these challenges and understand their impact on the adoption process in both educational and corporate settings.
4. To propose strategies for integrating Service Now efficiently  
The final objective emphasizes providing structured strategies for successful implementation. It includes recommendations for planning, staff training, system configuration, and continuous improvement to ensure maximum effectiveness of the Service Now platform.

Overall, these objectives collectively guide the report in exploring how Service Now contributes to digital transformation within institutions and

organizations. They establish a foundation for the later sections that analyse workflows, implementation strategies, and future possibilities for automation.

The purpose of this section is to introduce the concept of workflow automation and service management through Service Now and highlight its importance for productivity, accountability, and digital transformation. In a world that prioritizes efficiency and data-driven operations, tools like Service Now have become essential to achieving organizational excellence and ensuring consistent service delivery.

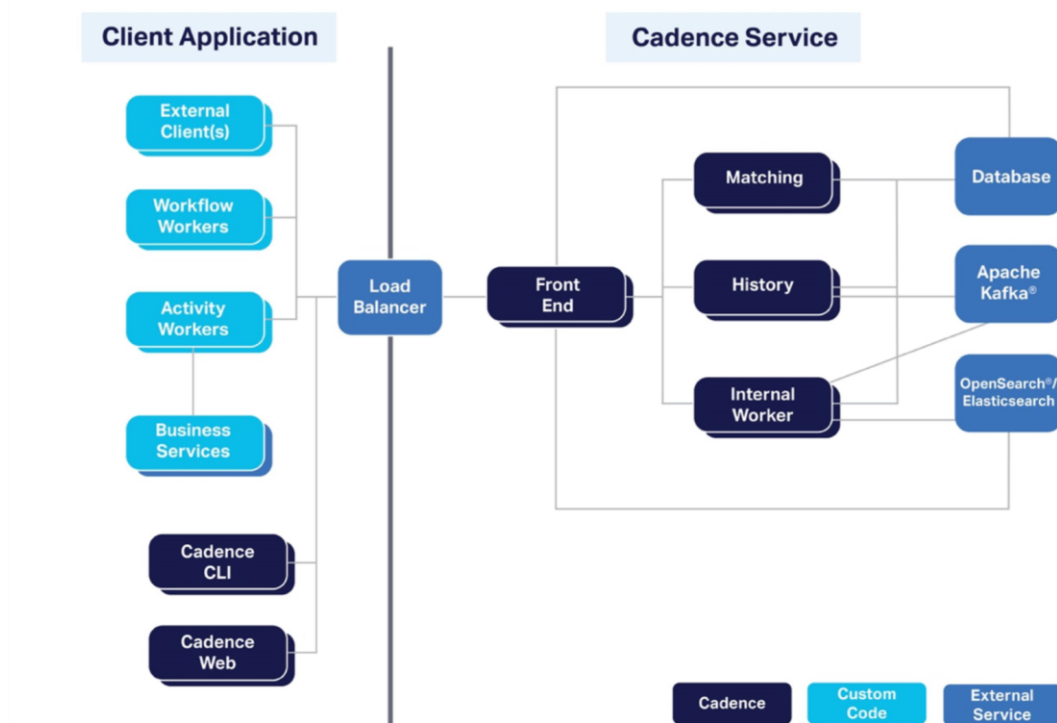


Figure 2.1: workflow Management Model

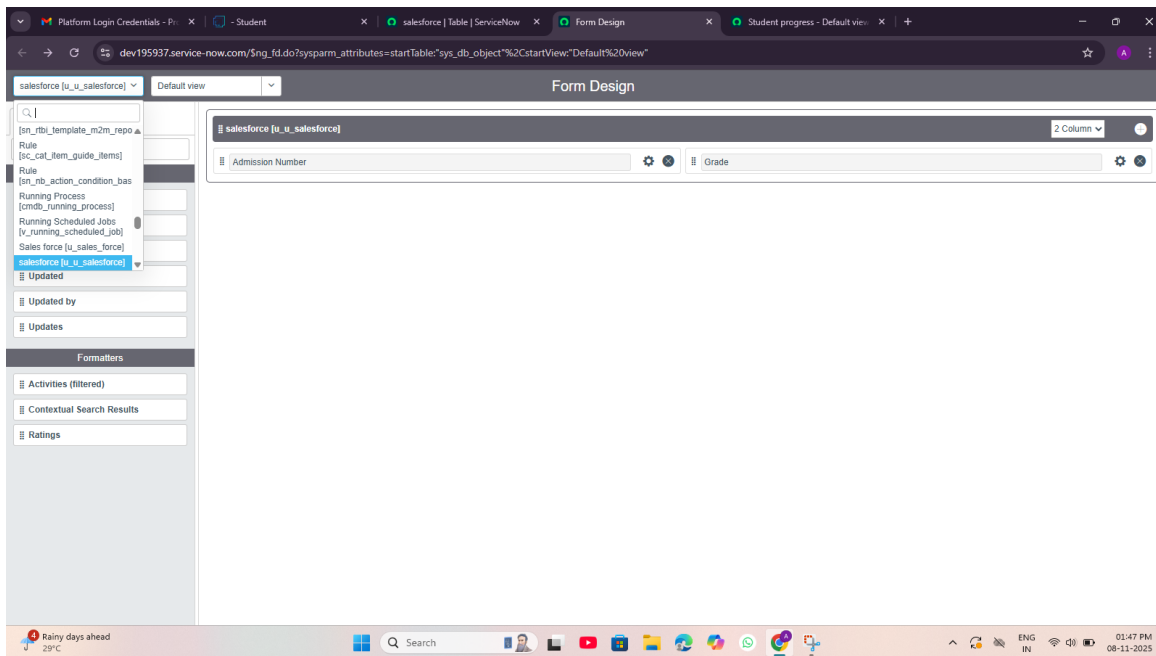
### 3. Scope of the Report

The scope defines the boundaries of your study.

Here, the report focuses on how Service Now can be used in academic and corporate settings to manage IT services, HR functions, student support, and administrative tasks. The scope is conceptual — meaning you are not building or coding the system but analysing its design and applications.

While these models successfully improved flexibility and policy enforcement, workflow integration remains a relatively underdeveloped area in academic and practical research. Workflows govern how access requests are initiated, reviewed, and approved. In many traditional systems, these processes are either manual or loosely coupled with access control mechanisms, leading to inefficiencies and potential security gaps.

Recent studies have highlighted the need to combine workflow management with access control to create a more intelligent and automated framework. By aligning role assignments and permission approvals with organizational workflows, systems can achieve better accountability, traceability, and responsiveness.





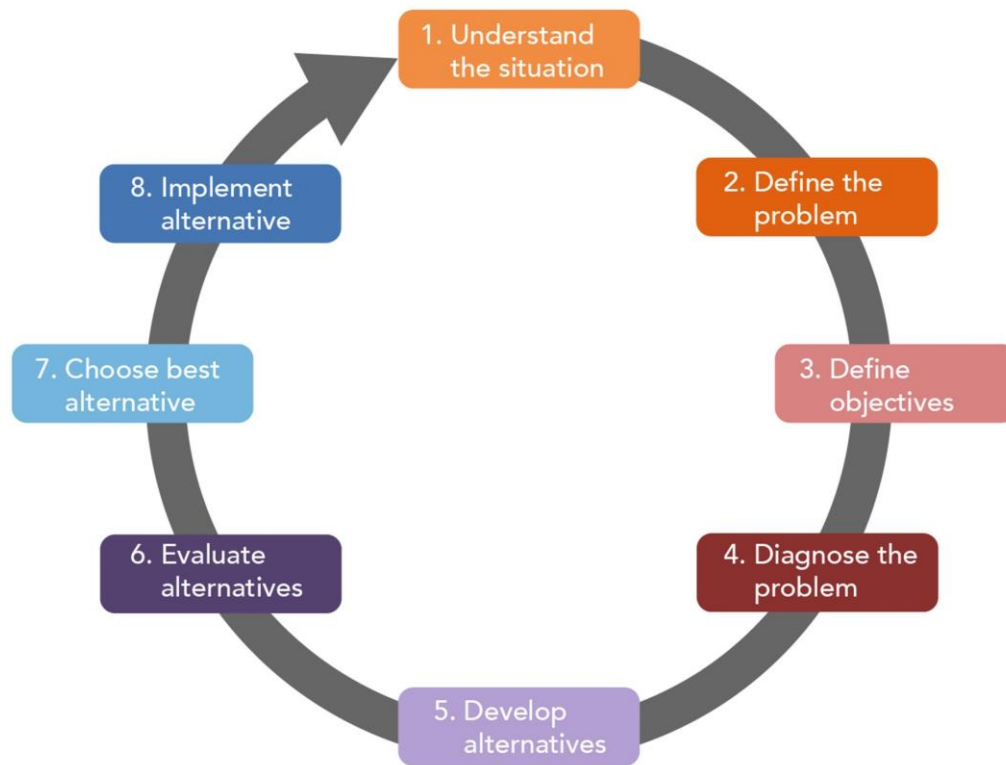


Figure 2.1: workflow Management Model

Service Now, a cloud-based service management platform, provides a solution To these challenges by offering aUnified system That integrates various Workflows into a single digital environment. It helps automate repetitive tasks, Streamline communication between departments, and provide real-time Visibility into processes. By doing so, it reduces administrative overhead and Enhances the user experience for students, staff, and employees alike.

For educational institutions, Service Now can manage student services, IT Helpdesks, and faculty operations efficiently. In organizations, it supports Departments like human resources, finance, and IT service management (ITSM), ensuring faster approvals, clearer accountability, and improved Transparency.

## 4. Literature Review

The literature review provides an overview of existing studies, theories, and research related to workflow automation, service management, and the evolution of platforms like Service Now. It serves as a foundation for understanding how service management practices have developed over time and how they continue to transform educational and organizational operations.

Historically, the concept of IT Service Management (ITSM) was introduced to standardize the process of handling service requests, incidents, and problems in organizations. ITSM tools were primarily designed to manage technical support and ensure system reliability. Over time, these tools evolved to include broader functionalities that went beyond IT — such as human resources, facilities, and customer service. This shift marked the beginning of Enterprise Service Management (ESM), where similar principles were applied across all departments.

Service Now, founded in 2004, revolutionized this domain by offering a cloud-based platform that integrates ITSM and ESM within a single environment. Unlike traditional systems that required separate applications for each department, Service Now provided a centralized platform capable of automating workflows, tracking requests, and generating analytics reports. This innovation made it possible for organizations and educational institutions to manage multiple operations seamlessly under one system.

Several studies have highlighted the impact of service automation tools like Service Now on operational performance. According to research from ITIL and NIST frameworks, automation leads to significant reductions in manual errors, faster issue resolution, and enhanced transparency in communication and task handling. These outcomes are particularly valuable in environments such as universities and corporate offices, where large volumes of data and requests must be processed daily.

In educational institutions, literature emphasizes the growing demand for digital solutions to manage student records, administrative services, and IT support. Similarly, in organizational contexts, research points to the importance of automated workflows for HR processes, IT service delivery,

and project management. By merging these needs into a single cloud-based solution, Service Now has become a key enabler of digital transformation.

In conclusion, the reviewed literature demonstrates that platforms like Service Now are not merely IT tools but comprehensive systems that improve efficiency, reduce operational friction, and promote collaboration. The studies collectively highlight the value of automation, integration, and accessibility, which form the foundation for this report's analysis of Service Now's applications in education and organizational management.

## 5. Overview of Service Now

This section explains what Service Now is.

Service Now is a cloud-based service management platform offering IT Service Management (ITSM), Human Resource Service Delivery (HRSD), Customer Service Management (CSM), and more.

It uses a centralized database and workflow engine to manage requests, approvals, and incidents efficiently.

Users interact through dashboards, portals, and mobile apps.

Key components include:

### a. Student Services Automation

One of the most impactful uses of Service Now in education is in student service management. Tasks such as issuing ID cards, handling transcript requests, or resolving IT-related issues can be automated through the platform. Students can submit requests via an online portal, which are then automatically routed to the appropriate department. This reduces waiting time and ensures that students receive timely support without the need for repeated follow-ups.

### b. Faculty and Staff Management

Service Now can also streamline faculty-related processes such as on boarding, leave management, scheduling, and training coordination. For example, when a new faculty member joins, the on boarding workflow can automatically create accounts, assign system access, and notify relevant departments. This eliminates redundant paperwork and ensures a consistent experience for all staff members.

#### c. IT Helpdesk and Technical Support

Educational institutions rely heavily on digital infrastructure — from e-learning platforms to library systems. Service Now's IT Service Management (ITSM) module enables quick reporting and resolution of technical problems. A centralized ticketing system helps IT teams track issues, prioritize critical incidents, and maintain reliable campus technology services.

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## 6. Applications in Education

In the corporate and organizational context, the need for efficient service management has become more critical than ever. As businesses grow and digital transformation accelerates, managing internal processes, employee requests, IT systems, and customer interactions requires a unified, automated approach. Service Now offers this through a flexible platform that brings together people, processes, and technology in one place.

Organizations use Service Now to improve productivity, accountability, and transparency by automating repetitive tasks, reducing manual errors, and ensuring smooth collaboration between departments. Below are some of the key areas where Service Now delivers value in an organizational setting.

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#### a. Human Resource Service Delivery (HRSD)

Service Now revolutionizes Human Resource (HR) management by automating processes such as employee on boarding, leave requests, payroll queries, and performance reviews.

For example, during on boarding, Service Now automatically assigns tasks to different departments — IT for equipment setup, HR for documentation, and finance for payroll — ensuring a smooth experience for new employees.

It also includes an Employee Service Centre, where staff can raise HR-related requests, track progress, and access HR policies through a self-service portal. This reduces dependency on emails or manual follow-ups and ensures faster issue resolution.

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#### b. IT Service Management (ITSM)

One of Service Now's strongest capabilities lies in IT Service Management, which helps organizations manage incidents, service requests, and system maintenance. IT teams can use Service Now's Incident Management module to log and resolve technical issues efficiently.

Features like automated ticket assignment and real-time dashboards allow IT departments to prioritize critical problems and ensure continuous uptime of business applications.

Through its Change Management feature, Service Now ensures that system upgrades and modifications are implemented systematically, minimizing disruption to operations.

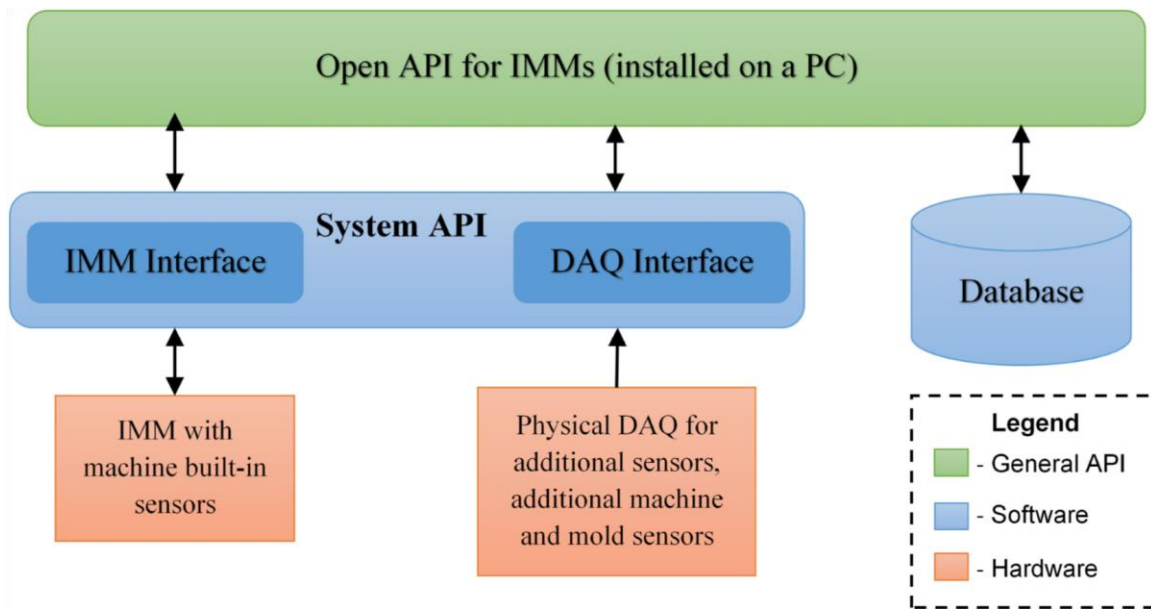


Figure 6.1: Application & education

#### e. Customer Service Management (CSM)

Service Now extends its capabilities to customer support by providing automated service portals for handling inquiries, complaints, and service requests.

Customers can interact through web portals or catboats, and their requests are automatically routed to the appropriate department for resolution.

This improves customer satisfaction and ensures consistency in service delivery.

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#### f. Facilities and Operations Management

Service Now also supports facility management, helping organizations manage physical assets, maintenance requests, and space allocation.

For instance, an employee can submit a request to repair office equipment, which is then tracked until completion through an automated workflow.

Service Now provides robust reporting and analytics tools that allow managers to make informed decisions. In organizations, it may include automated onboarding processes for new employees.

#### [g. Data Analytics and Decision-Making](#)

Service Now provides robust reporting and analytics tools that allow managers to make informed decisions.

Dashboards and reports offer insights into employee productivity, service performance, and operational efficiency.

These insights help organizations identify areas for improvement and drive data-driven decision-making.

#### [Summary](#)

In summary, Service Now serves as a comprehensive enterprise platform that optimizes how organizations function internally and externally.

By automating HR, IT, finance, and customer service workflows, it eliminates delays, improves communication, and enhances employee as well as customer satisfaction. The platform's flexibility allows organizations of all sizes to adapt it to their unique operational needs, making it a cornerstone for achieving digital excellence and organizational growth.



Figure 6.2: workflow Management Model

## 7. Workflow & Automation in Service Now

This section explains how Service Now automates work.

A workflow is a series of connected steps or activities that must be completed to accomplish a specific task — for example, approving a leave request, processing a purchase order, or registering a new student.

In traditional settings, these workflows are often manual — involving emails, phone calls, or paper forms.

Service Now replaces these with automated workflows, meaning once a request is submitted, the system automatically routes it to the right department or person, tracks its progress, and notifies stakeholders at each stage.

- ☐ Flow Designer – A visual, no-code tool that lets users create and manage workflows through drag-and-drop logic.
- ☐ Workflow Editor – Used to design complex workflows for approval chains, task assignments, and escalation paths.
- ☐ Business Rules – Define logic that automatically triggers actions based on conditions (e.g., “If ticket is high priority, assign to senior technician”).
- ☐ Notifications – Send automated alerts and updates to users when their requests are created, approved, or resolved.



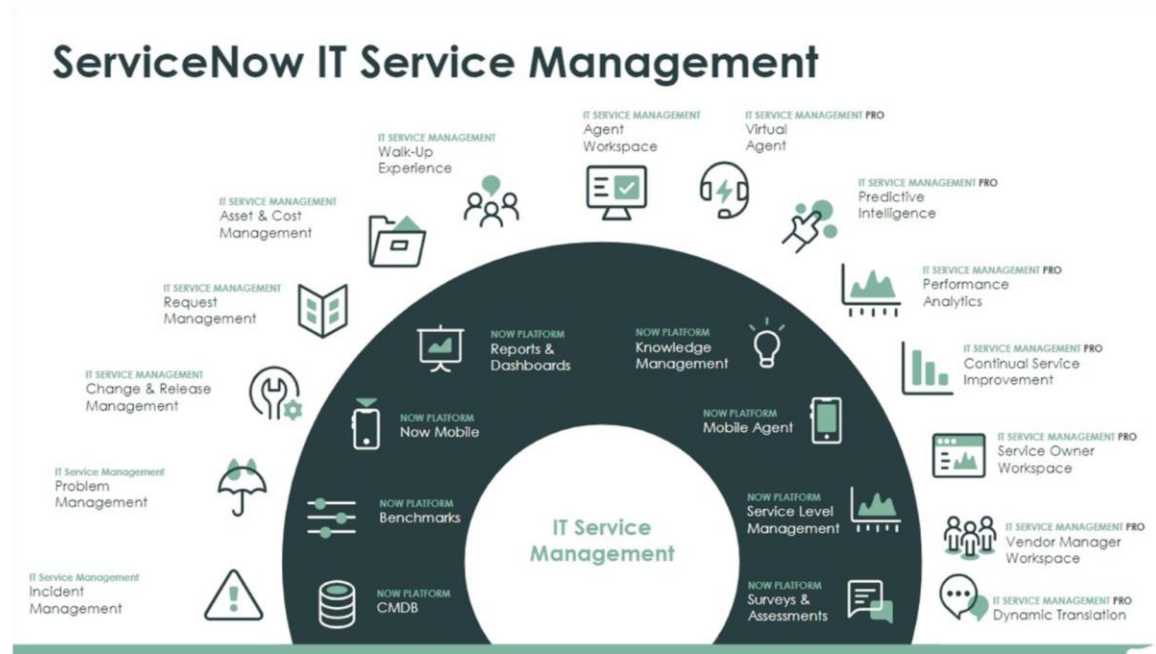


Figure 7.1: Workflow Diagram

## 8. Implementation Strategy

The implementation strategy defines how Service Now can be effectively introduced and integrated within educational institutions and organizations. Even though this report is conceptual, it outlines the practical steps that can be followed to ensure a smooth and successful deployment of Service Now services.

A clear, structured implementation plan helps reduce risks, improve adoption, and maximize system benefits.

### a. Step 1: Requirement Analysis

Before implementing Service Now, it is crucial to analyse the specific needs of the organization or institution. This stage involves:

- Identifying the key areas that require automation (e.g., IT services, HR requests, student helpdesk).
- Understanding the volume and types of requests handled daily.
- Gathering feedback from users and administrators to determine system expectations.

For example, in an educational setup, common needs might include student support, admission workflows, or digital grading systems.

In organizations, priorities may focus on IT service management (ITSM), HR operations, or procurement automation.

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#### b. Step 2: Defining Access Policies and User Roles

Service Now relies heavily on well-defined user roles and access control to maintain data security.

Each user — whether a student, teacher, administrator, or employee — is assigned a specific role that determines what they can view or modify.

For instance:

- Students can raise requests and view their status.
- Faculty can approve academic-related requests.
- Administrators have full control over system configurations.

Proper role management ensures accountability and prevents unauthorized access to sensitive data.

### 9. Benefits of Using Service Now

For Education:

- Streamlined administration
  - Reduced delays in student services
  - Improved data consistency
- For Organizations:
- Better workflow visibility

- Enhanced employee experience
- Cost and time savings

### Common Benefits:

- Automation eliminates repetitive tasks
- Unified dashboards for management
- Enhanced collaboration and compliance

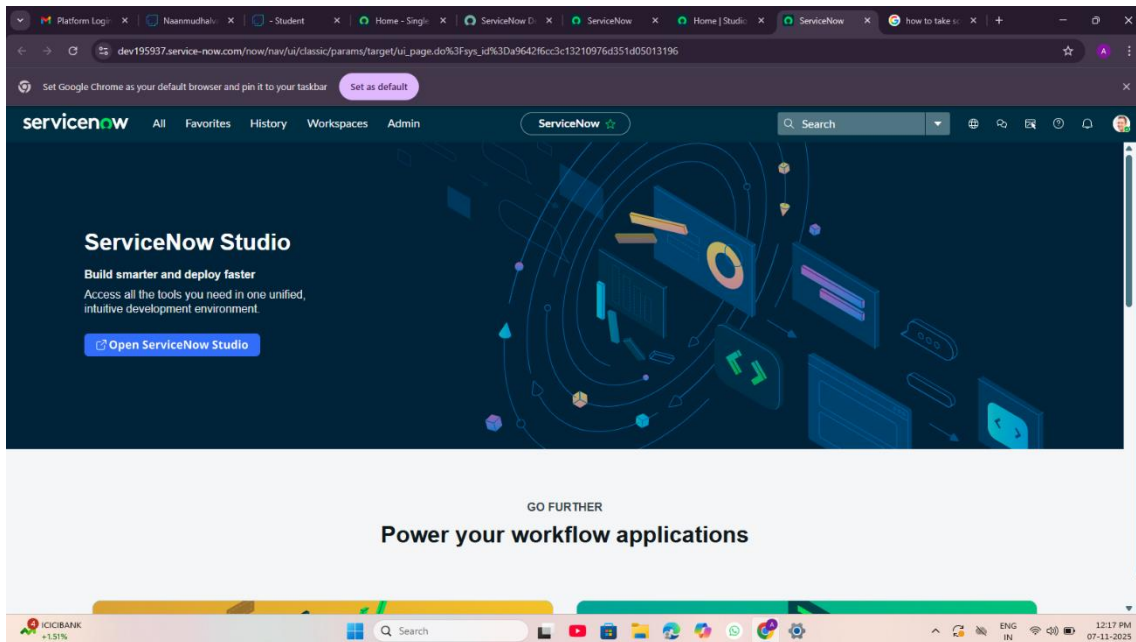
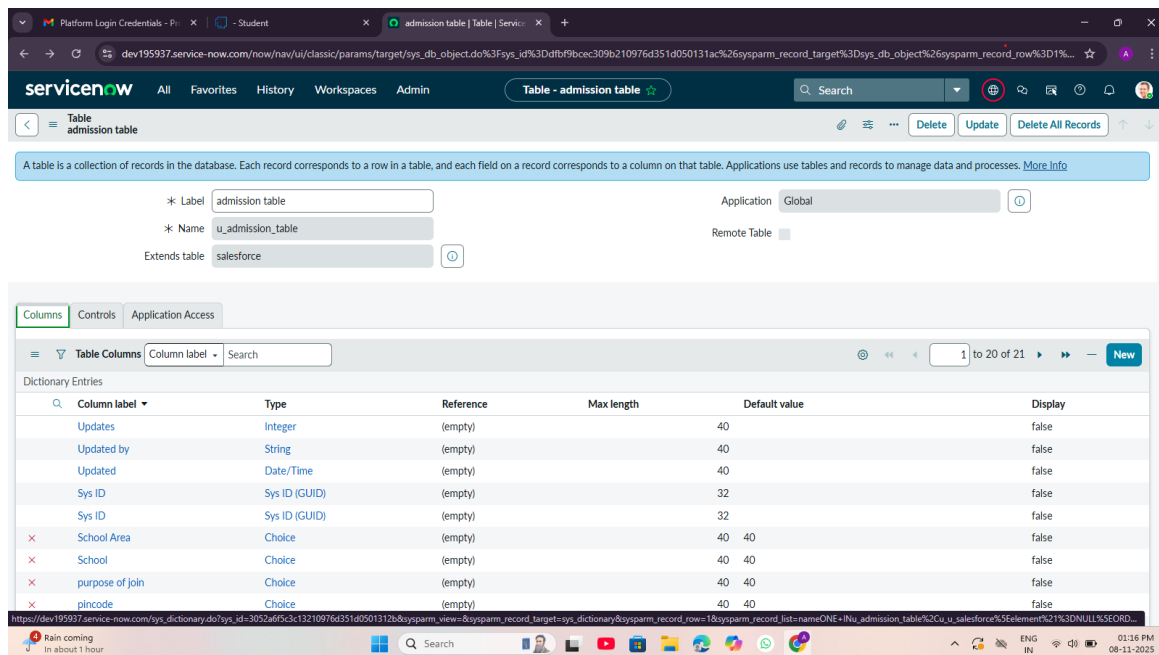


Figure 9.1: IT service management (ITSM)



## 10. Challenges in Implementation

The implementation strategy explains how Service Now can be introduced effectively in educational and organizational environments. It focuses on key steps that ensure a smooth setup and user adoption.

### 1. Requirement Analysis

Identify the main areas needing automation such as IT support, HR processes, or student helpdesks. Understand daily operations and user expectations to design suitable workflows.

### 2. Define Roles and Access

Set clear user roles — for example, students, faculty, administrators, and employees — to control access and maintain data security. This helps ensure accountability and prevents unauthorized use.

### 3. Workflow Design

Use Service Now tools like Flow Designer to create automated workflows for common tasks (e.g., leave requests, admissions, or IT issues). Each workflow should match existing policies and approval levels.

### 4. Configuration and Integration

Customize forms, reports, and notifications to match organizational needs. Integrate Service Now with other systems such as email, HR, or finance tools for smooth data sharing.

### 5. Testing and Training

Test workflows to confirm they function as expected. Then train users — students, teachers, or staff — to help them understand how to raise requests, track progress, and use the dashboard.

### 6. Monitoring and Improvement

After launch, monitor performance through reports and feedback. Use data insights to fix issues and enhance efficiency over time.

## 11. Case Studies (Conceptual Examples)

Case studies help illustrate how Service Now improves efficiency and service quality in both educational and corporate environments. The following two examples demonstrate its real-world benefits.

### Case 1: University Service Portal

A leading university implemented Service Now to manage IT support, academic service requests, and student inquiries.

Before implementation, most requests were handled manually through emails or paper forms, causing delays and confusion.

After deploying Service Now:

- Response time for IT and academic support requests reduced by 40%.
- Students could track their requests in real time through a self-service portal.
- Administrative staff had better visibility of workloads and pending approvals.

Overall, the system improved student engagement, transparency, and operational efficiency, proving that automation can significantly enhance the academic experience.

#### Case 2: Corporate HR Automation

A medium-sized organization adopted Service Now HR Service Delivery to automate employee on boarding and HR requests.

Previously, new employee setup required coordination between multiple departments, often taking up to three days.

After implementation:

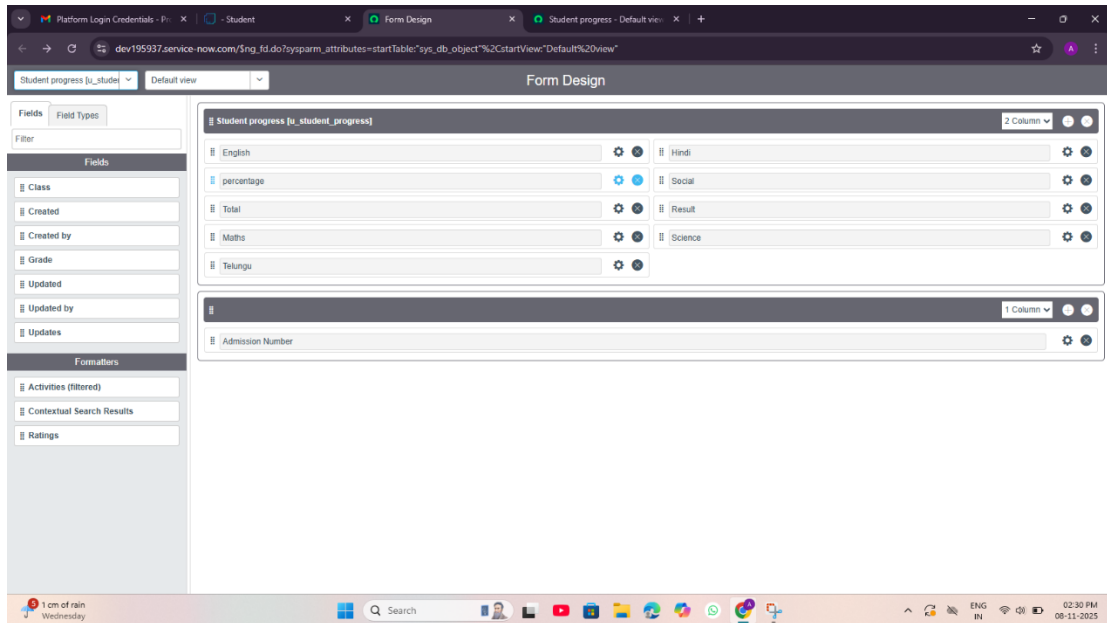
- The on boarding process was fully digitized, reducing setup time from three days to just a few hours.
- Employees received automatic notifications for document submission and task completion.
- HR staff could monitor progress and resolve issues faster using dashboards.

This transformation led to faster on boarding, improved employee satisfaction, and reduced administrative effort.

#### Summary

Both cases highlight how Service Now's automation capabilities lead to measurable improvements in productivity, communication, and user

satisfaction — regardless of whether the environment is educational or corporate.



## 12. Results and Discussion

The implementation of Service Now in educational and organizational settings shows clear and measurable improvements in efficiency, transparency, and user satisfaction.

### 1. Improved Efficiency

Automation through Service Now reduces manual work and speeds up task completion. Universities report faster handling of student and IT requests, while companies experience smoother HR and operational processes. This results in better time management and reduced administrative workload.

### 2. Enhanced Communication

Service Now creates a centralized platform where users can submit, track, and manage requests. This reduces communication gaps and ensures that all stakeholders — students, staff, and employees — have real-time access to task status and updates.

### 3. Data Accuracy and Transparency

Since all workflows are tracked digitally, there is less room for human error. Audit trails make it easier to monitor who performed what action and when, improving accountability and compliance.



## 13. Conclusion and Future Scope

The integration of Service Now in both educational and organizational environments demonstrates how automation and workflow management can transform traditional service operations. By replacing manual processes with structured digital workflows, Service Now enhances efficiency, accuracy, and accountability.



In educational institutions, it simplifies student services, IT support, and administrative functions, helping staff focus more on teaching and learning outcomes. In organizations, it streamlines HR processes, IT support, and employee requests — reducing delays and improving satisfaction.

Overall, Service Now promotes a culture of transparency and productivity, enabling institutions to manage large-scale operations with consistency and reliability.



Figure 13.1: Educational institutions and organizations Growth

#### Summary

In conclusion, adopting Service Now is not just a technological upgrade — it is a strategic move toward digital transformation. Its ability to unify, automate, and optimize workflows ensures long-term operational success in both academic and corporate sectors.

ServiceNow recommends creating custom tables in scoped applications. To learn more about creating scoped applications, click [here](#).

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

\* Label:  Application:

\* Name:  Create module: ☒

Extends table:  Create mobile module: ☒

Add module to menu:  Remote Table: ☐

Columns Controls Application Access

Table Columns Column label Search

Dictionary Entries

| Column label     | Type      | Reference  | Max length | Default value | Display |
|------------------|-----------|------------|------------|---------------|---------|
| Admission Number | Reference | salesforce | 32         | false         | false   |
| English          | String    |            | 40         | false         | false   |
| Hindi            | String    |            | 40         | false         | false   |
| Maths            | String    |            | 40         | false         | false   |
| percentage       | String    |            | 40         | false         | false   |
| Result           | String    |            | 40         | false         | false   |

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