Final Project Report

1. INTRODUCTION

1.1 Project Overview

This project aims to develop a comprehensive service management system tailored for an educational organization using **ServiceNow**. The platform centralizes requests and automates workflows related to IT s services, academic support, facility management, and student services.

By leveraging ServiceNow's powerful capabilities in workflow automation and IT service management, this system enhances the operational efficiency of educational institutions and provides a seamless experience for students, faculty, and administrators.

1.2 Purpose

The primary purpose of this project is to automate and streamline service delivery in educational organizations. Manual processes like student inquiries, IT issue resolution, and administrative approvals often result in delays and inefficiencies. This project uses ServiceNow to create an integrated platform where users can raise, track, and resolve requests efficiently, while administrators can monitor service levels and ensure timely resolutions.

2. IDEATION PHASE

2.1 Problem Statement

Educational institutions struggle with fragmented systems for managing academic, administrative, and IT-related tasks.

2.2 Empathy Map Canvas

The **Empathy Map Canvas** is a collaborative visualization tool used to articulate what we know about a specific type of user. It helps in understanding the users' environment, behaviors, concerns, and needs, which allows for better alignment between the solution and user expectations. For this project, the primary user personas considered are **students**, **faculty**, and **administrative staff** within an educational institution.

2.3 Brainstorming

Ideas explored included manual tracking tools, basic role lists, and finally, a structured role-based access control system with automated workflows, which was selected.

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

From project initiation to task completion, users experience a streamlined workflow with clear role definitions and automated notifications.

3.2 Solution Requirement

- Role Management
- Group Management

- Audit Trails

3.3 Data Flow Diagram

Data flows between the Frontend, Backend, Database, Authentication Module, and Workflow Engine.

(Detailed diagram available in Solution Architecture)

3.4 Technology Stack

- Frontend: ServiceNow UI Builder
- Backend: ServiceNow
- Database: ServiceNow table(builtIn)
- Authentication: OAuth / SSO
- Hosting: Cloud-based

4. PROJECT DESIGN

4.1 Problem Solution Fit

The solution introduces role-based access control and workflow automation tailored to solve the accountability and task tracking problems faced by the team.

4.2 Proposed Solution

- Create custom catalog items for various departments and Automate workflows

4.3 Solution Architecture

The system consists of a Frontend, Backend API, Database, Authentication Module, and Workflow Engine. Architecture ensures scalability, security, and easy management.

5. PROJECT PLANNING & SCHEDULING

The project was executed in phases: Requirement Gathering, Design, Development, Testing, and Deployment, with weekly progress reviews.

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

- **Load Test:** Simulated 100 concurrent user logins and form submissions
- **Response Time:** Portal response under 2 seconds on average

7. RESULTS

7.1 Output Screenshots

- Screenshot of Service Catalog
- Workflow for student service request

8. ADVANTAGES & DISADVANTAGES

Advantages:

- Centralized service request management
- Time-saving automation
- Transparent and trackable processes
- Scalable across departments or campuses

Disadvantages:

- Initial setup complexity
- Requires training for users unfamiliar with ITSM
- Limited offline capabilities

9. CONCLUSION

The project successfully demonstrates how educational institutions can leverage ServiceNow to digitize and streamline service management. From IT support to student services, automation reduces manual workload, ensures faster responses, and improves user satisfaction. The scalable design allows for future expansion to other services and campuses.

10. FUTURE SCOPE

Future improvements include mobile app development, advanced analytics dashboards, and integration with third-party project management tools.

11. APPENDIX

Source Code: Available upon request

Dataset Link: Not applicable

GitHub & Project Demo Link: https://github.com/Navya547-vemula/Educational-organisation-using-ServiceNow-https://drive.google.com/file/d/1Aq6KR7OCAFuedQsnZ32FkMYcIQD0JiV3/view?usp=drivesdk