Project Report Format

Streamlining Ticket Assignment for Efficient Support Operations

1.INTRODUCTION

1.1 Project Overview

The Streamlining Ticket Assignment for Efficient Support Operations project focuses on developing an automated ticket routing system for ABC Corporation. The system analyzes incoming support tickets and assigns them to the appropriate support teams based on ticket category, priority, and issue type. This helps reduce manual effort and improves response time.

1.2 Purpose

The purpose of this project is to improve operational efficiency by automating ticket assignment. It aims to reduce delays in issue resolution, enhance customer satisfaction, and optimize the utilization of support team resources.

2.IDEATION PHASE

2.1 Problem Statement

Manual ticket assignment leads to delays, incorrect routing, increased workload, and inefficient support operations. This affects customer satisfaction and resolution time.

2.2 Empathy Map Canvas

- **Users Think:** Need quick issue resolution
- **Users Feel:** Frustrated due to delays
- **Users Say:** Want faster support response
- **Users Do:** Raise support tickets and wait for updates

2.3 Brainstorming

Possible solutions considered:

- Rule-based ticket routing
- Machine learning based classification
- Priority-based auto assignment
- Dashboard for monitoring ticket flow

Final idea: Automated intelligent ticket routing system.

3.REQUIREMENT ANALYSIS

3.1 Customer Journey Map

User raises ticket → System captures details → Ticket categorized → Assigned to correct team → Team resolves issue → User receives update.

3.2 Solution Requirement

- Ticket submission module
- Ticket classification module
- Auto assignment logic
- Admin dashboard
- Notification system

3.3 Data Flow Diagram

User submits ticket → System processes ticket → Classification engine analyzes → Assignment module routes ticket → Support team receives ticket → Resolution updated.

3.4 Technology Stack

1.Frontend (User Interface)

ServiceNow UI / Web Interface used for ticket creation, viewing status, and interaction with the system.

2.Application Logic

Flow Designer is used to automate ticket assignment and workflow processing.Based on the Issue field, tickets are automatically assigned to the appropriate support group (Platform / Certificates) to reduce manual effort.

3.Database

- ServiceNow Cloud Database is used to store ticket records, user details, roles, groups, and assignment information.
- The custom table Operations Related (u_operations_related) is used for managing support tickets.

4. Security & Access Control

- Access Control Lists (ACL) and Roles are used to manage permissions and restrict unauthorized access.
- Role-based security ensures that only authorized users can create, view, or modify records.

5.Infrastructure & Platform

ServiceNow Cloud Platform provides hosting, workflow automation, data management, scalability, and secure access for the ticket assignment system

4. PROJECT DESIGN

4.1 Problem Solution Fit

Manual ticket assignment causes delays and incorrect routing. The proposed automated ticket assignment system solves this by categorizing tickets and assigning them instantly to the appropriate support group using predefined rules and workflows. This improves response time and reduces manual effort.

4.2 Proposed Solution

- The proposed solution is designed to streamline ticket assignment and improve support operations using the ServiceNow platform.
- The system allows users to create support tickets through a custom table called Operations Related. Each ticket contains details such as issue type, priority, comments, and assignment information.
- To reduce manual effort and improve efficiency, Flow Designer is used to automate the assignment process. When a ticket is created or updated, the flow checks the issue type and automatically assigns the ticket to the appropriate support group (Platform or Certificates).

- Role-based access control is implemented using Roles, Groups, and Access Control Lists **(ACL)** to ensure secure access and proper data management.
- This approach improves operational efficiency, reduces manual errors, and ensures faster ticket handling.

4.3 Solution Architecture

The architecture consists of:

- **User Interface Layer:** The ServiceNow Web Interface is used for ticket creation, viewing ticket status, and updating records through forms and list views.
- **Application Layer:** Flow Designer handles workflow automation and ticket assignment logic based on predefined conditions.
- **Data Layer:** The ServiceNow Cloud Database stores ticket records, user details, roles, groups, and assignment information within the custom table Operations Related (u_operations_related).
- **Security Layer:** Roles and Access Control Lists (ACL) ensure secure access by restricting operations such as create, read, write, and delete based on user permissions.

5.PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Requirement gathering
- System design
- Development
- Testing
- Deployment
- Documentation

6.FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

The system is tested to ensure smooth and efficient ticket handling within the ServiceNow platform. The testing focuses on:

- Ticket creation and processing performance
- Automatic assignment accuracy using Flow Designer
- System response time during record creation and updates
- Proper handling of multiple tickets without workflow failure
- Role-based access validation and secure data handling

7. RESULTS

7.1 Output Screenshots

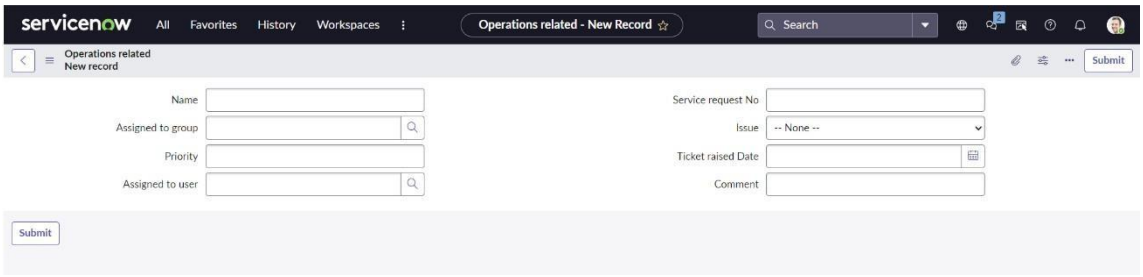

Figure 1: New Record Form - Operations Related

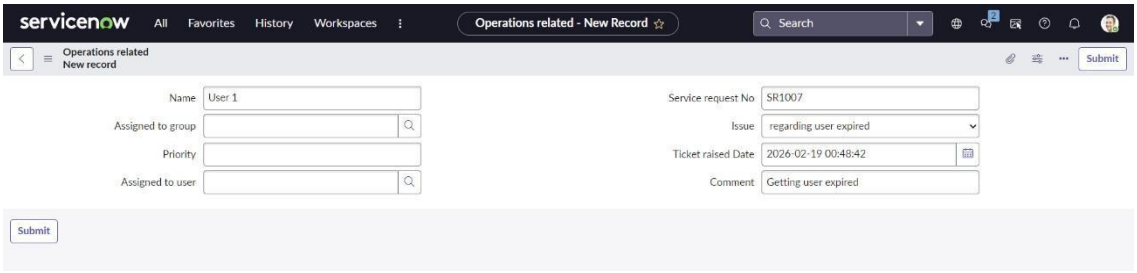

Figure 2: "Operations Related" Table - New Record is Created Successfully

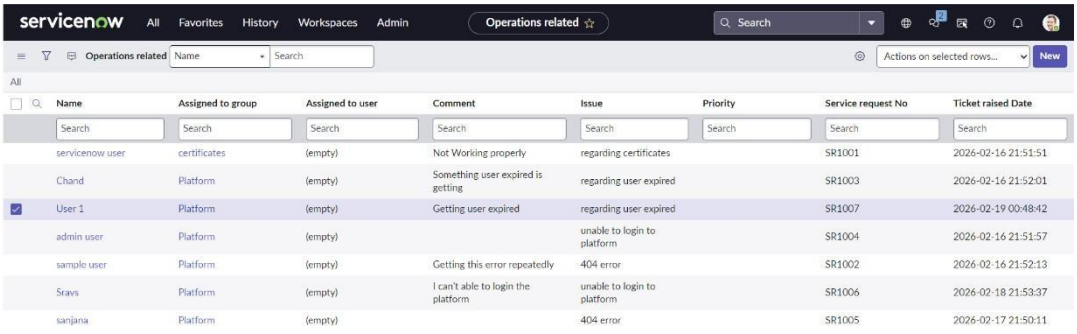

Figure 3: Assigned Group is Automatically Entered

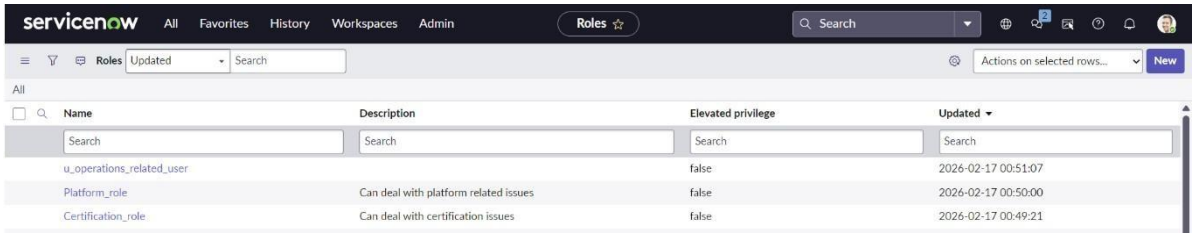

Figure 4: Roles Creation - "Platform_role" & "Certification_role"

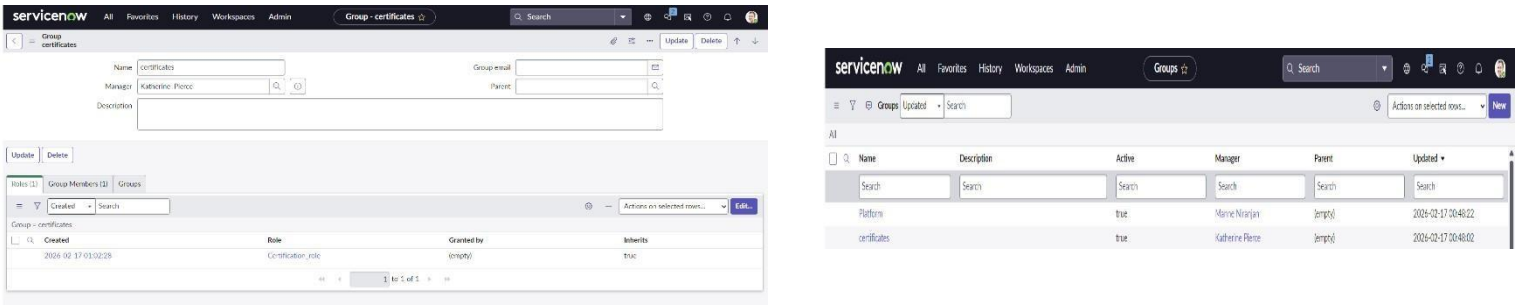

Figure 5: Group Creation - certificates & platform

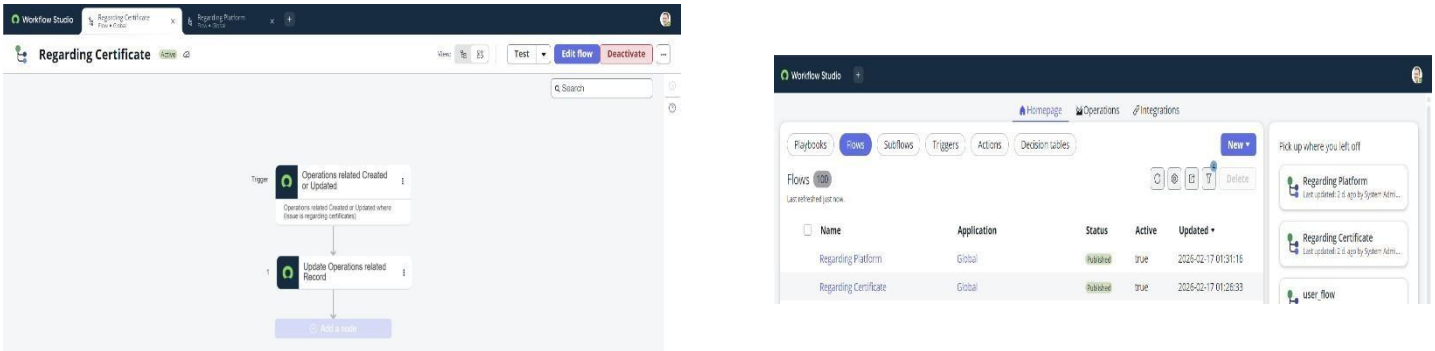

Figure 6: Flow Automation - "regarding certificate" & "regarding platform"

8.Advantages&Disadvantages

1.Faster Ticket Assignment

The system automatically routes tickets to the correct support team, reducing delays and improving response time**.**

2.Reduced Manual Work and Errors

Automation removes manual sorting of tickets, which minimizes human mistakes and increases efficiency.

3.Improved Customer Satisfaction

Quick assignment and faster issue resolution provide a better user experience and increase customer satisfaction.

Disadvantage

1.Initial Setup Complexity

Configuring workflows, rules, and integrations requires time and technical effort during implementation**.**

2.Requires Maintenance

The system needs regular updates to rules, workflows, and integrations to ensure accurate ticket routing.

3.Cost Involved

Using platforms like ServiceNow may require licensing and infrastructure costs.

9.Conclusion

The Streamlining Ticket Assignment for Efficient Support Operations project successfully demonstrates an automated approach to ticket routing using the ServiceNow platform. The system reduces manual effort, minimizes assignment errors, and improves response time by automatically assigning tickets to the appropriate support teams. This leads to better resource utilization, enhanced operational efficiency, and improved customer satisfaction. Overall, the project provides a scalable and reliable solution for modern support management.

10.Future Scope

The project can be further enhanced by integrating advanced technologies such as Artificial Intelligence and Machine Learning for smart ticket classification and predictive assignment. Future improvements may include chatbot integration for automatic ticket creation, SLA monitoring for performance tracking, analytics dashboards for decision-making, and multichannel support integration (email, chat, mobile apps). These enhancements will make the system more intelligent, proactive, and efficient for large-scale enterprise environments.

11. APPENDIX

Source Code:

This project is developed using the ServiceNow platform and is primarily configuration based. No external programming source code files are used.

The implementation includes:

- Custom Table Configuration (Operations Related)
- Role and Group Configuration
- Access Control Lists (ACL)
- Flow Designer Automation
- Update Set Configuration

GitHub Link: **https://github.com/srava123371/Streamlining-Ticket-Assignment-for-EfficientSupport-Operations.git**

Demo Link:

https://drive.google.com/file/d/17oMzpHHAosefjQNUXeFl3L9oXB2NTOdI/view?usp=drive_link