

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

Operations related
New record

Name	<input type="text"/>	Service request No.	<input type="text"/>
Assigned to group	<input type="text"/> <input type="button" value="Search"/>	Issue	<input type="button" value="... None --"/>
Priority	<input type="text"/>	Ticket raised Date	<input type="text"/> <input type="button" value="Calendar"/>
Assigned to user	<input type="text"/> <input type="button" value="Search"/>	Comment	<input type="text"/>

Figure 1: New Record Form - Operations Related

Operations related
New record

Name	User 1	Service request No.	SR1007
Assigned to group	<input type="text"/> <input type="button" value="Search"/>	Issue	<input type="button" value="regarding user expired"/>
Priority	<input type="text"/>	Ticket raised Date	2026-02-19 00:48:42 <input type="button" value="Calendar"/>
Assigned to user	<input type="text"/> <input type="button" value="Search"/>	Comment	Getting user expired

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

Operations related

Name	Assigned to group	Assigned to user	Comment	Issue	Priority	Service request No.	Ticket raised Date
servicenow user	certificates	(empty)	Not Working properly	regarding certificates		SR1001	2026-02-16 21:51:51
Chand	Platform	(empty)	Something user expired is getting	regarding user expired		SR1003	2026-02-16 21:52:01
<input checked="" type="checkbox"/> User 1	Platform	(empty)	Getting user expired	regarding user expired		SR1007	2026-02-19 00:48:42
admin user	Platform	(empty)		unable to login to platform		SR1004	2026-02-16 21:51:57
sample user	Platform	(empty)	Getting this error repeatedly	404 error		SR1002	2026-02-16 21:52:13
Sravs	Platform	(empty)	I can't able to login the platform	unable to login to platform		SR1006	2026-02-18 21:53:37
sanjana	Platform	(empty)		404 error		SR1005	2026-02-17 21:50:11

Figure 3: Assigned Group is Automatically Entered

Roles

Name	Description	Elevated privilege	Updated
u_operations_related_user		false	2026-02-17 00:51:07
Platform_role	Can deal with platform related issues	false	2026-02-17 00:50:00
Certification_role	Can deal with certification issues	false	2026-02-17 00:49:21

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

The left screenshot shows the 'Group - certificates' creation page in ServiceNow. It includes fields for Name (certificates), Manager (Katherine Pierce), Group email (parsec), and Description. Below the form is a table showing group members and roles.

Role	Granted by	Inherits
Certification role	empty	true

The right screenshot shows a list of groups in ServiceNow. It includes columns for Name, Description, Active, Manager, Parent, and Updated. Two groups are listed: 'Regarding Platform' and 'certificates'.

Name	Description	Active	Manager	Parent	Updated
Regarding Platform		true	Marie Nirajan	(empty)	2025-02-17 00:48:22
certificates		true	Katherine Pierce	(empty)	2025-02-17 00:48:02

Figure 5: Group Creation - certificates & platform

The left screenshot shows the 'Regarding Certificate' flow in Workflow Studio. It starts with a 'Trigger' node ('Operations related Created or Updated') which points to an 'Update Operations related Record' node.

```

graph TD
    Trigger[Trigger: Operations related Created or Updated] --> Update[Update Operations related Record]
    
```

The right screenshot shows the 'Regarding Platform' flow in Workflow Studio. It lists two flows: 'Regarding Platform' and 'Regarding Certificate', both of which are active and updated recently.

Name	Application	Status	Active	Updated
Regarding Platform	Global	Ran	true	2025-02-17 01:31:16
Regarding Certificate	Global	Ran	true	2025-02-17 01:28:33

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