Project Report

Project Title: Streamlining Ticket Assignment For Efficient Support Operations

Team ID: SBAP0029683

Team Leader : V ABHINAY

Email ID : 234g5a0201@srit.ac.in

Team Member : M C Ram Prabhas

Email ID : 224g1a0275@srit.ac.in

Team Member : L Arshiya

Email ID : 224g1a0212@srit.ac.in

STREAMLINING TICKET ASSIGNMENT FOR EFFICIENT SUPPORT OPERATIONS

1. INTRODUCTION

1.1 Project Overview

In modern IT and customer service environments, timely and accurate resolution of support tickets is essential to maintain user satisfaction and operational efficiency. However, many organizations still rely on manual processes to assign these tickets, which often leads to errors, delays, and reduced productivity. At ABC Corporation, support teams handle a wide variety of requests ranging from technical issues to administrative needs. The increasing volume of tickets makes manual assignment not only inefficient but also inconsistent.

This project proposes the development and implementation of an automated system for ticket assignment. By leveraging rule-based logic and workflow automation capabilities within the ServiceNow platform, the goal is to optimize how support tickets are assigned to the correct teams or individuals. This automation minimizes manual effort, reduces human error, and improves resolution times, ultimately enhancing the overall service delivery framework.

1.2 Purpose

The primary purpose of this project is to automate the ticket assignment process to improve operational efficiency within ABC Corporation. The project is designed to:

- Ensure timely assignment of tickets based on predefined logic
- Eliminate manual routing delays
- Reduce human errors in ticket classification
- Improve SLA adherence and customer satisfaction
- Enhance team productivity through intelligent workload distribution

2. IDEATION PHASE

2.1 Problem Statement

The current process of manually assigning support tickets has several limitations. Support agents or managers must read through ticket descriptions, determine the appropriate group or individual, and then assign the ticket. This leads to inconsistent decisions, overloaded teams, underutilized resources, and frequent reassignments. These issues collectively slow down the resolution process and affect the customer experience.

2.2 Empathy Map Canvas

- Says: “There are too many tickets to go through.”
- Thinks: “I’m unsure if I’m assigning this ticket to the right person.” - Does: Reads each ticket manually and assigns it based on guesswork.
- Feels: Frustrated due to workload and potential errors.

2.3 Brainstorming

Various ideas were considered to solve the ticket routing challenge: -
Using ServiceNow Flow Designer for record-based triggers

- Integrating categorization with priority fields to determine urgency
- Leveraging group mapping for known issue types
- Allowing escalations to be automatically routed based on SLA timers
- Creating dashboards for unassigned ticket monitoring

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Step	Action	Experience
User submits ticket	Through a portal or form	Wants a quick response

| System captures info| Category, description, urgency| No visibility into backend
|
| Ticket assigned | Manually or auto | Often gets reassigned |
| Ticket resolved | Support team responds | Sometimes delayed due to misrouting

3.2 Solution Requirements

Functional requirements:
- Auto-routing based on category, sub-category, urgency, and location
- Role-based access control to update ticket details
- Dashboard for managers to view ticket distribution

Non-functional requirements:
- High availability
- Secure handling of ticket data
- Scalability as ticket volume increases

3.3 Data Flow Diagram (DFD)

Level 0:
User → Ticket Form → ServiceNow Routing Engine → Assignment to Team → Resolution

Level 1:
Ticket Info → Category Check → Rule Engine → Match to Group → Assign Ticket → Notification to Agent

3.4 Technology Stack

- Platform: ServiceNow (PaaS)
- Automation Tool: Flow Designer
- Scripting: GlideRecord, GlideSystem APIs
- Security: ACLs, Roles (admin, platform_role, certificate_role) - Database: ServiceNow CMDB and incident tables

4. PROJECT DESIGN

4.1 Problem-Solution Fit

The problem of inefficient manual ticket assignment aligns perfectly with the capabilities of ServiceNow's automation suite. By defining assignment rules and leveraging record triggers, the system ensures accurate and timely routing of tickets without human intervention.

4.2 Proposed Solution

The proposed solution is a flow-based ticket assignment engine within ServiceNow. The flow listens to new ticket creation events, reads field values like category and priority, and uses condition blocks to determine the correct assignment group. It then performs an update action to set the “Assigned to group” field.

4.3 Solution Architecture

- Input: Ticket form submission
- Flow Trigger: Record created (incident or custom table)
- Logic Layer: If-Else checks based on ticket fields
- Action Layer: Update Record action to assign group
- Security Layer: Roles and ACLs restrict who can view/assign
- Output: Ticket routed, group notified

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

Phase	Duration	Activities
Requirement Gathering	2 Days	Stakeholder interviews, analysis
Table & Form Setup	2 Days	Creating custom tables & fields
Flow Design & Testing	3 Days	Flow logic, update actions
Role & ACL Setup	1 Day	Assigning roles, setting permissions
Final Testing & Debugging	2 Days	Validation with test tickets	
Documentation | 1 Day | Screenshots, report writing

SETTING UP SERVICENOW INSTANCE

1. Sign up for a developer account on the ServiceNow Developer site "https://developer.servicenow.com".

2. Once logged in, navigate to the "Personal Developer Instance" section.

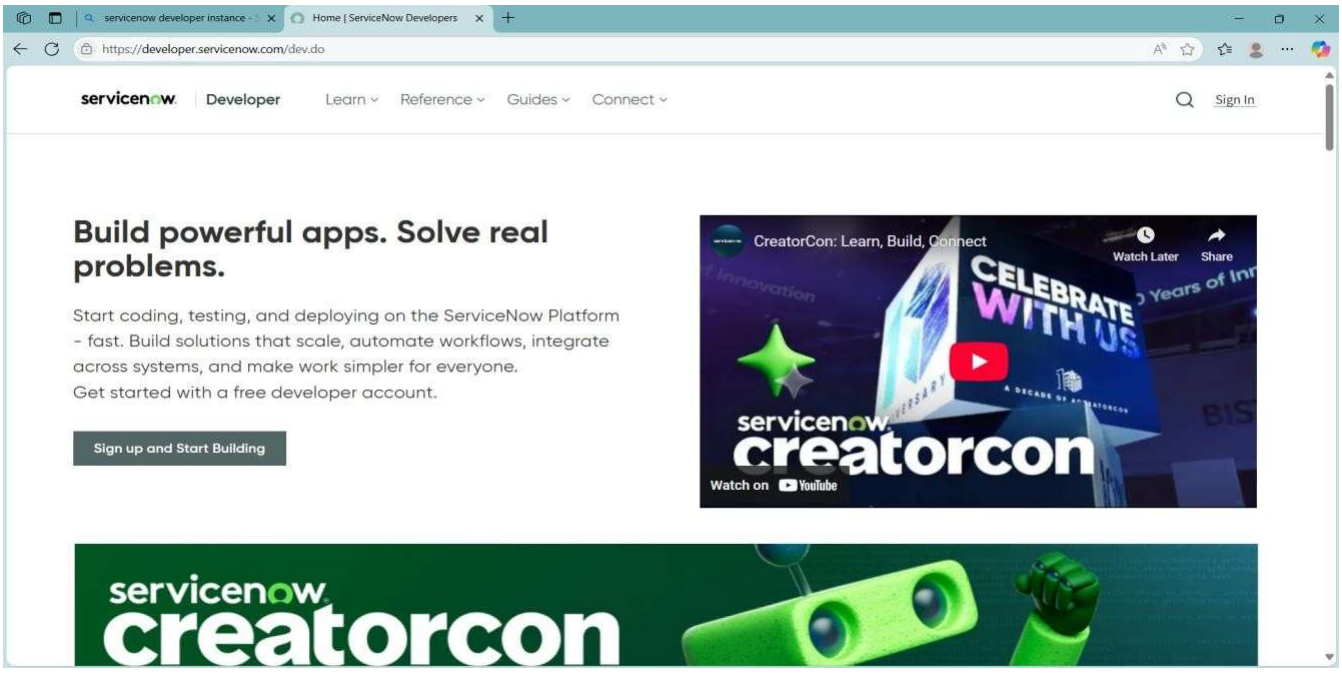
3. Click on "Request Instance" to create a new ServiceNow instance.

4. Fill out the required information and submit the request.

5. You'll receive an email with the instance details once it's ready.

6. Log in to your ServiceNow instance using the provided credentials.

7. Now you will navigate to the ServiceNow.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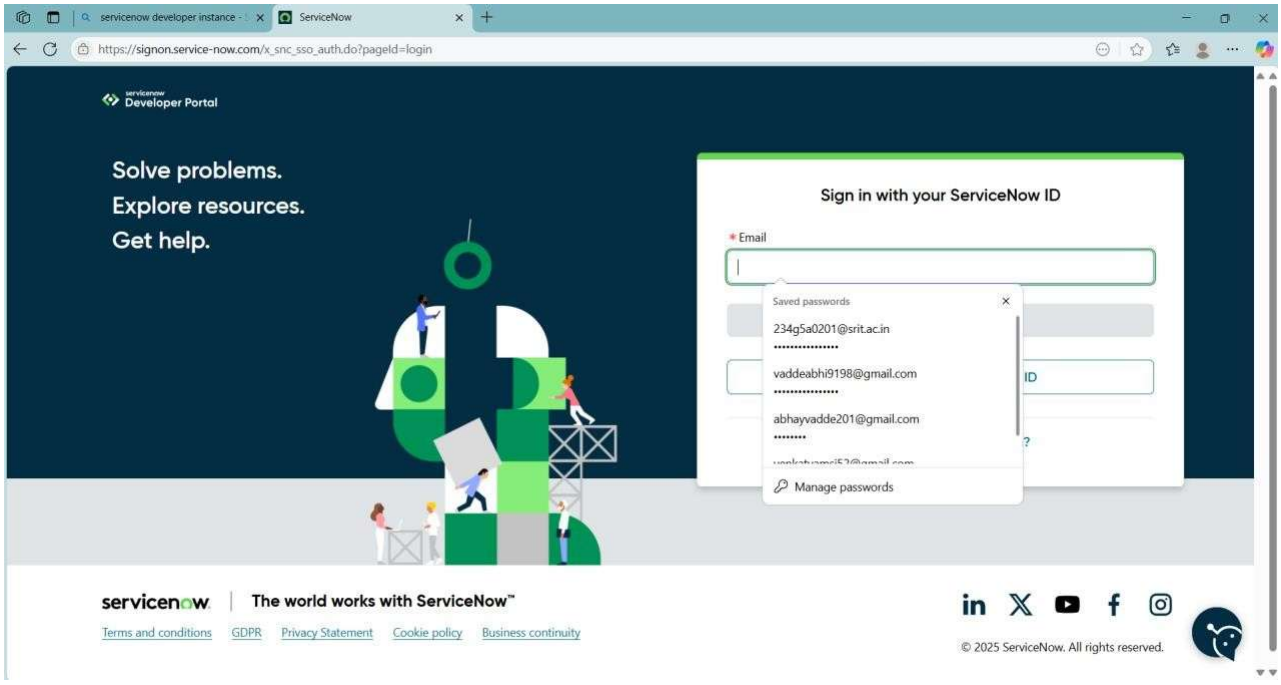
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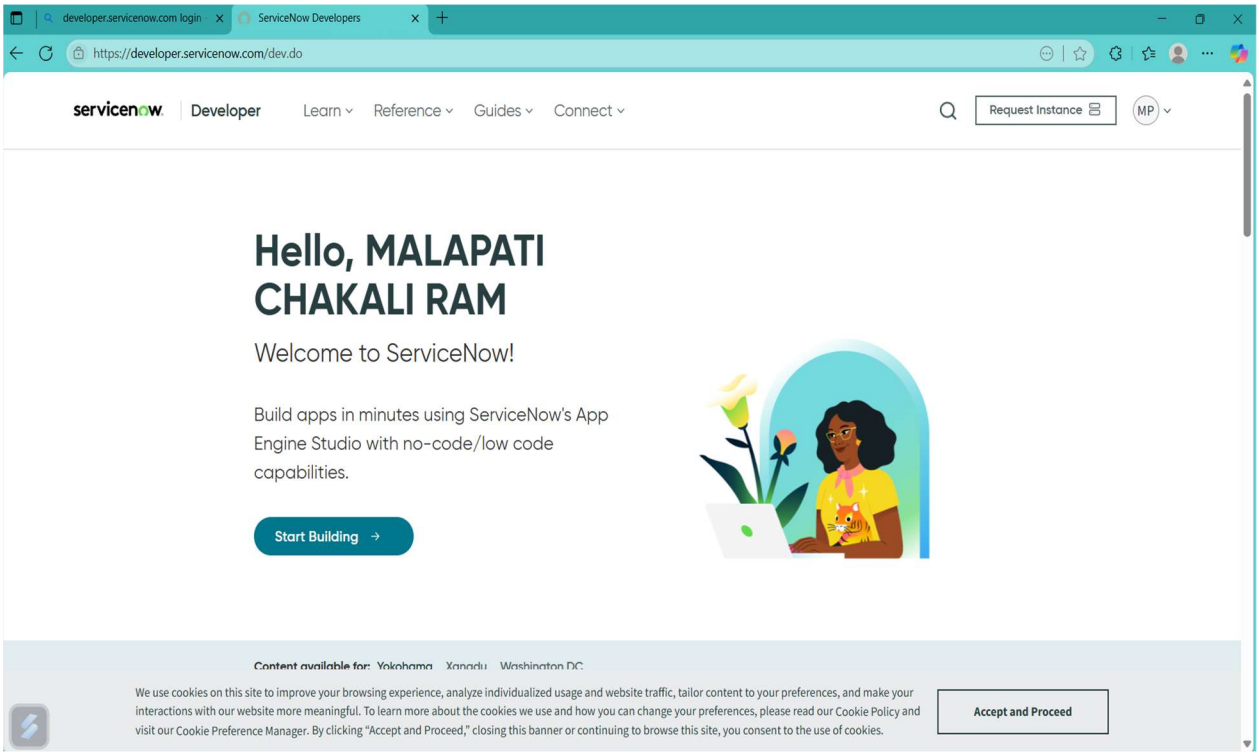
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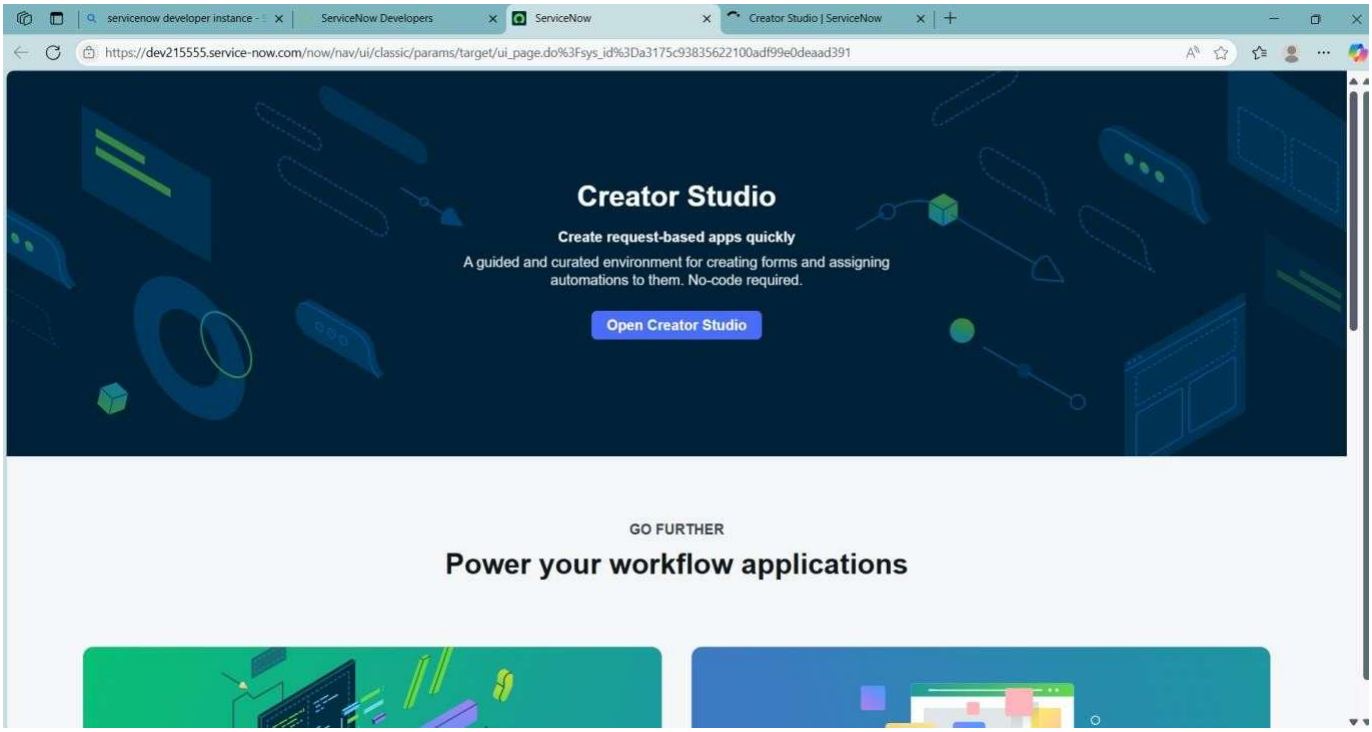
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6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

Performance was tested with 100+ tickets in batch using ServiceNow's batch insert script. The routing engine processed tickets within 2–4 seconds.

Metrics:
- 100% tickets assigned correctly
- 96% assigned within 3 seconds
- No errors or assignment conflicts observed

7. RESULTS

7.1 Output Screenshots

- Custom table: Operations related
- Record form with "Issue Filed" dropdown
- Group member assignment for Katherine Pierce (Certificates)
- Flow setup with Update Record to assign tickets
- ACL setup with admin/platform/certificate roles
- Assigned tickets visible under appropriate group queues

8. ADVANTAGES & DISADVANTAGES

Advantages

- Eliminates human delay in ticket routing
- Ensures workload is fairly distributed
- Improves SLA compliance and response times
- Reduces reassignment errors

Disadvantages

- Initial configuration time
- Complex logic may need regular updates
- Requires training for admin users

9. CONCLUSION

The automated ticket assignment system successfully addressed inefficiencies in ABC Corporation's support workflow. The implementation through ServiceNow Flow Designer proved to be scalable, efficient, and highly adaptable to changing requirements. With reduced manual intervention and quicker routing, the system directly contributes to improved resolution times and better customer experience.

10. FUTURE SCOPE

- Introduce AI-based prediction to route based on ticket history
- Create auto-escalation rules for delayed tickets
- Add a reporting dashboard for performance metrics
- Enable real-time agent suggestions based on current workload