# Project Documentation

**Title:** Streamlining Ticket Assignment for Efficient Support Operations  
**Platform:** Naan Mudhalvan – SmartInternz Guided Project

## Introduction

In large-scale initiatives like Naan Mudhalvan, managing support tickets efficiently is critical. With thousands of students and mentors, issues must be resolved quickly and systematically. This project focuses on building a ticket assignment system using concepts of Users, Groups, Roles, ACLs, and Flows to streamline support operations.

## Users

* Definition: Users are individuals who interact with the system (students, faculty, support agents).
* Role in Ticketing: Each user can raise support tickets, track progress, or resolve issues depending on their permissions.
* Implementation: User records are created with attributes such as name, email, department, and assigned roles.

## Groups

* Definition: Groups are collections of users who share similar responsibilities.
* Purpose: Helps in routing tickets to the correct team (e.g., Technical Support Group, Academic Support Group).
* Implementation: Groups are created in the system, and users are assigned based on expertise.

## Roles

* Definition: Roles define what actions a user can perform in the system.
* Examples:
  + Student: Can raise and view tickets.
  + Support Agent: Can view, update, and resolve tickets.
  + Admin: Can manage users, groups, roles, and workflows.

## Table

* Definition: A table stores ticket data and related attributes.
* Fields: Ticket ID, Issue Type, Priority, Assigned Group, Status, Resolution Time.
* Purpose: Centralized storage for tracking all tickets and their lifecycle.

## Assign Roles & Users to Groups

* Process:
  + Add users to appropriate groups based on their responsibilities.
  + Assign roles (like Support Agent or Admin) to groups, ensuring members inherit permissions automatically.
* Benefit: Simplifies access management and ensures consistent privileges for group members.

## Assign Role to Table

* Implementation: Specific roles are given access to perform actions on the ticket table (e.g., read, write, update, delete).
* Example: Only Support Agents and Admins can update ticket statuses.

## Create ACL (Access Control List)

* Purpose: Ensure secure access to ticket records.
* Implementation: ACL rules are created to control who can see, who can edit, and who can close tickets.
* Benefit: Protects sensitive information and enforces accountability.

## Flow

* Definition: Automated workflow for ticket assignment.
* Process Flow:
  1. Ticket is raised by user.
  2. System categorizes ticket (technical, academic, login issue, etc.).
  3. Based on rules, ticket is auto-assigned to the right group.
  4. Notifications are sent to assigned agent and user.
  5. Escalation rules trigger if ticket is unresolved within SLA.
* Benefit: Reduces manual effort, ensures faster resolution.

Project Members

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