**Project Documentation**

**Project Title:**

Optimizing User, Group, and Role Management with Access Control and Workflow

**Team Information:**

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**Project Overview**

**Problem Statement**

The current system lacks a streamlined and secure method for managing user access, group assignments, and role-based permissions. This often leads to manual, error-prone processes, potential security vulnerabilities, and inefficient workflows.

**Objective**

The primary objective of this project is to develop and implement a robust and scalable solution for managing users, groups, and roles within the ServiceNow platform. This includes establishing a clear access control hierarchy, defining specific roles and permissions, and automating key processes through workflows. The goal is to enhance security, improve administrative efficiency, and ensure that users have appropriate access to the resources they need, and nothing more.

**Skills Applied**

* ServiceNow Administration
* User and Group Management
* Role and Access Control List (ACL) Configuration
* Flow Designer for Workflow Automation
* System Security
* Table and Module Creation

**Task Initiation**

**Milestone 1: User Management**

**Activity 1: Create Users**

1. Open ServiceNow and search for "users".
2. Navigate to **System Security > Users**.
3. Click **New**.
4. Fill in the required user details.
5. Click **Submit**.
6. Create additional users as needed.

**Milestone 2: Group Management**

**Activity 1: Create Groups**

1. Open ServiceNow and search for "groups".
2. Navigate to **System Security > Groups**.
3. Click **New**.
4. Fill in the details to create a new group.
5. Click **Submit**.

**Milestone 3: Role Management**

**Activity 1: Create Roles**

1. Open ServiceNow and search for "roles".
2. Navigate to **System Security > Roles**.
3. Click **New**.
4. Fill in the details to create a new role.
5. Click **Submit**.
6. Create additional roles as needed.

**Milestone 4: Table and Fields**

**Activity 1: Create Table**

1. Open ServiceNow and search for "tables".
2. Navigate to **System Definition > Tables**.
3. Click **New**.
4. Fill in the following details:
   * **Label:** project table
   * Check **Create module** & **Create mobile module**.
   * **New menu name:** project table
5. Under "table columns," define the columns:
   * project id (Integer)
   * project name (String)
   * project manager (String)
   * start date (Date)
   * end date (Date)
   * status (Choice)
   * description (String)
6. Click **Submit**.
7. Create a second table named "task table 2" with appropriate fields.

**Milestone 5: Assign Users to Groups**

**Activity 1: Assign users to project team group**

1. Open ServiceNow and search for "groups".
2. Select the project team group.
3. Go to the "Group Members" tab.
4. Click **Edit**.
5. Select the users you want to add (e.g., Alice and Bob) and save.

**Milestone 6: Assign Roles to Users**

**Activity 1: Assign roles to Alice**

1. Open ServiceNow and search for "users".
2. Select the user alice p.
3. Under the "Roles" tab, click **Edit**.
4. Assign the appropriate roles (e.g., project member, u\_project\_table\_user, and u\_task\_table\_user) and save.

**Activity 2: Assign roles to Bob**

1. Select the user bob p.
2. Under the "Roles" tab, click **Edit**.
3. Assign the appropriate roles (e.g., team member) and save.
4. Impersonate Bob to verify he can see the task table 2 module.

**Milestone 7: Application Access**

**Activity 1: Assign table access to application**

1. Navigate to the project table application menu.
2. Click **Edit Module**.
3. Assign the project member role to the application.
4. Similarly, navigate to the task table 2 application and assign the project member and team member roles.

**Milestone 8: Access Control List (ACL)**

**Activity 1: Create ACLs**

1. Open ServiceNow and search for "ACL".
2. Navigate to **System Security > Access Control (ACL)**.
3. Click **Elevate Role** and then **New**.
4. Fill in the details to create a new ACL for the task table 2.
5. Under "Requires Role," add the team member role.
6. Create additional ACLs to control write access for specific fields (comments, status, etc.) for the task table 2.
7. Impersonate Bob to verify that he has edit access only to the specified fields.

**Milestone 9: Flow**

**Activity 1: Create a Flow to Assign Operations Ticket to Group**

1. Open ServiceNow and search for "Flow Designer".
2. Click **New** and select **Flow**.
3. Name the flow "task table" and set the application to Global.
4. Add a trigger: **Created Record**.
5. Set the table to task table 2.
6. Add conditions (e.g., status is In progress, comments is feedback, assigned to is bob).
7. Add an action: **Update Record**.
8. Set the record field to status and the value to completed.
9. Add an action: **Ask for Approval**.
10. Set the Record field to the current record.
11. Set the Approver field to the user alice p.
12. Test the flow by creating a new task record that meets the trigger conditions.
13. Impersonate Alice and approve the request from the "My Approvals" module.

**Conclusion**

This project successfully demonstrates the creation of a comprehensive user management and access control system within ServiceNow. The implemented solution automates key processes using Flow Designer, ensures appropriate access with ACLs, and provides a structured framework for managing users, groups, and roles. This greatly improves security and efficiency within the platform.