# OPTIMIZING USER,GR0UP,AND ROLE MANAGEMENT WITH ACCESS CONTROL AND WORKFLOWS

**Team Id: NM2025TMID14029**

**Team Members:4**

**Team Leader: VIGNESH J**

**Team Member: SURIYA KUMAR P**

**Team Member: DHIBAKAR M**

**Team Member : VISHNU PRIYAN J V**

## Problem Statement:

**Organizations often face inefficiencies in managing user access, roles, and permissions, especially when scaling. Without a centralized and dynamic system, there's a high risk of unauthorized access, manual errors, and compliance issues. Our project aims to address these challenges by designing a system that streamlines user, group, and role management with integrated access control and approval workflows.**

## Objective:

**To develop a secure, scalable, and automated system that allows administrators to efficiently manage users, roles, and permissions, along with workflows that enforce access control policies across the organization.**

## Skills:

- **Role-Based Access Control (RBAC)**
- **User & Group Management Systems**
- **Backend Development (e.g., Node.js, Django, or Spring Boot)**
- **Frontend UI (e.g., React, Angular)**
- **Workflow Automation Tools**
- **Database Design (SQL/NoSQL)**
- **Authentication & Authorization (OAuth2, JWT)**
- **Cloud Platforms (e.g., AWS, Azure, GCP)**

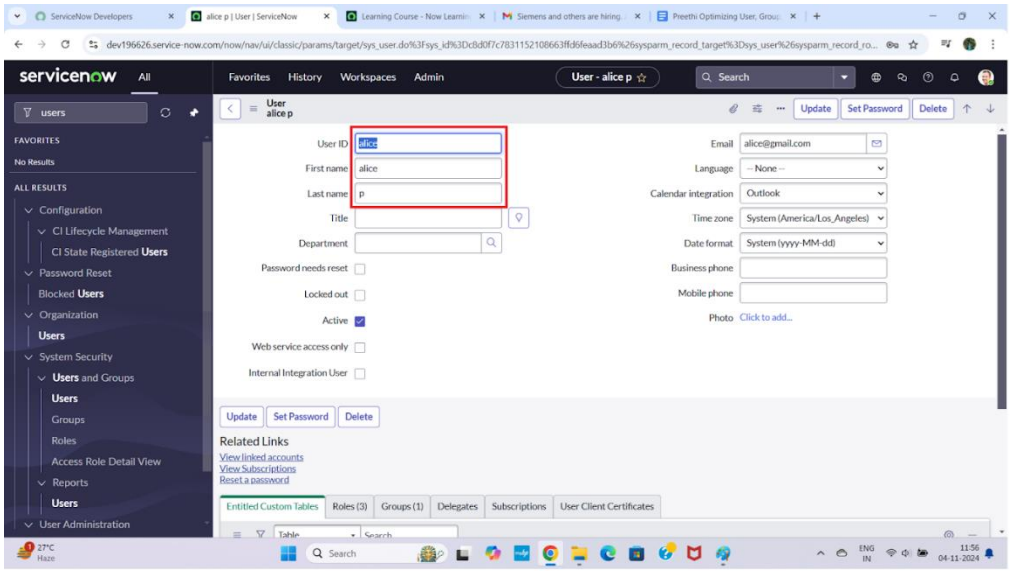
## TASK INITIATION :

**Start with research and requirement gathering. Define key components like:**

- **User registration/authentication module**
- **Role & permission matrix**
- **Access control rules engine**
- **Approval workflow module**
- **Admin dashboard**

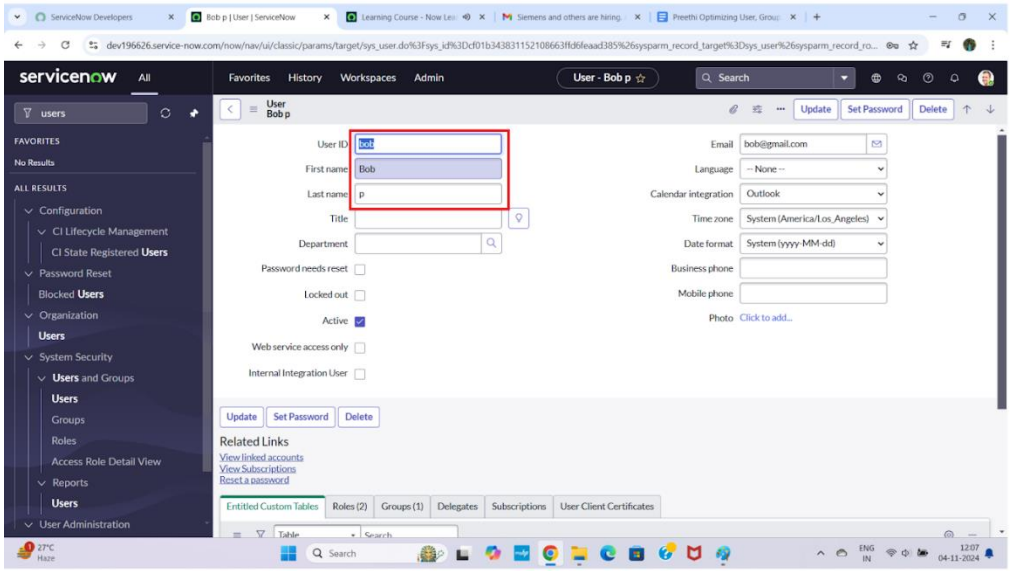
**Create Users**

1. Open service now
2. Click on All >> search for users
3. Select Users under system security
4. Click on new
5. Fill the following details to create a new user
6. Click on submit

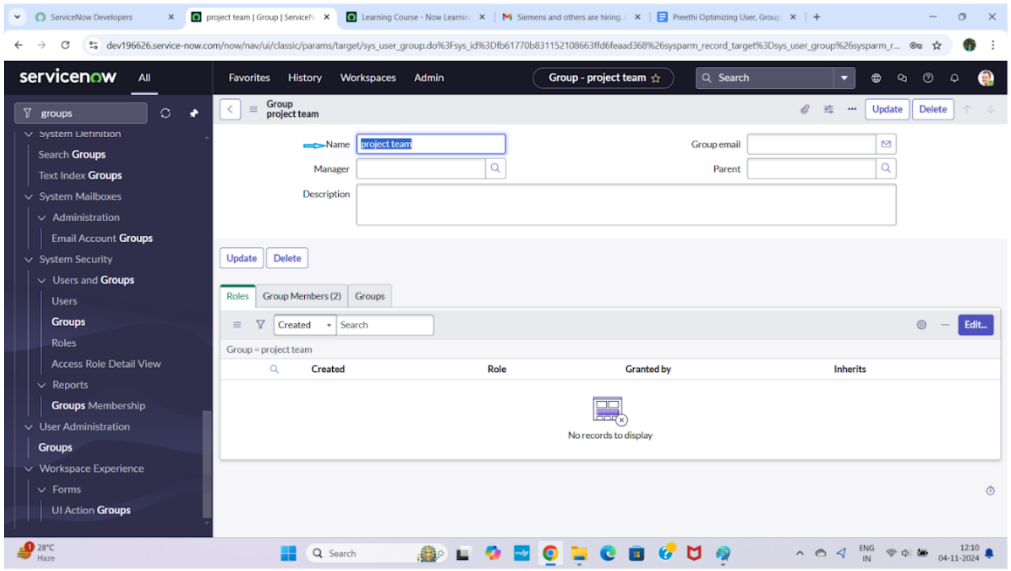



**Create one more user:**

7. Create another user with the following details
8. Click on submit

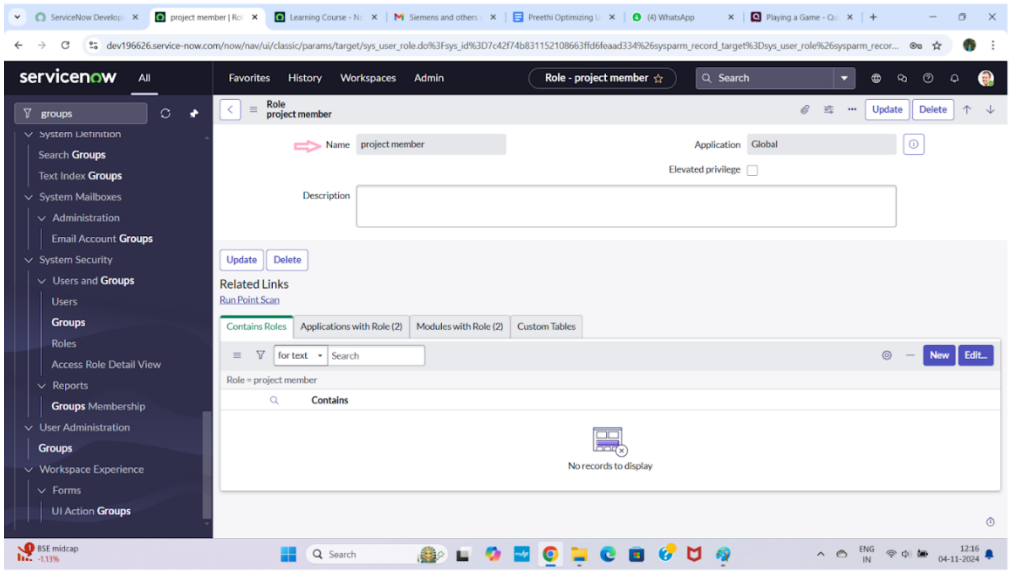

servicenow
All
Favorites
History
Workspaces
Admin
User - Bob p
Search
users
FAVORITES
No Results
ALL RESULTS
Configuration
CI Lifecycle Management
CI State Registered Users
Password Reset
Blocked Users
Organization
Users
System Security
Users and Groups
Users
Groups
Roles
Access Role Detail View
Reports
Users
User Administration
User
Bob p
Update
Set Password
Delete
User ID
bob
First name
Bob
Last name
p
Title
Department
Password needs reset
Locked out
Active
Web service access only
Internal Integration User
Email
bob@gmail.com
Language
-- None --
Calendar integration
Outlook
Time zone
System (America/Los_Angeles)
Date format
System (yyyy-MM-dd)
Business phone
Mobile phone
Photo
Click to add...
Related Links
View linked accounts
View Subscriptions
Reset a password
Entitled Custom Tables
Roles (2)
Groups (1)
Delegates
Subscriptions
User Client Certificates

1.


servicenow
All
Favorites
History
Workspaces
Admin
Group - project team
Search
groups
System Definition
Search Groups
Text Index Groups
System Mailboxes
Administration
Email Account Groups
System Security
Users and Groups
Users
Groups
Roles
Access Role Detail View
Reports
Groups Membership
User Administration
Groups
Workspace Experience
Forms
UI Action Groups
Group
project team
Update
Delete
Name
project team
Manager
Description
Group email
Parent
Roles
Group Members (2)
Groups
Created
Search
Edit...
Group = project team
Created
Role
Granted by
Inherits
No records to display

**Create Roles**

1. Open service now.
2. Click on All >> search for roles
3. Select roles under system security
4. Click on new
5. Fill the following details to create a new role
6. Click on submit




**Create one more role:**

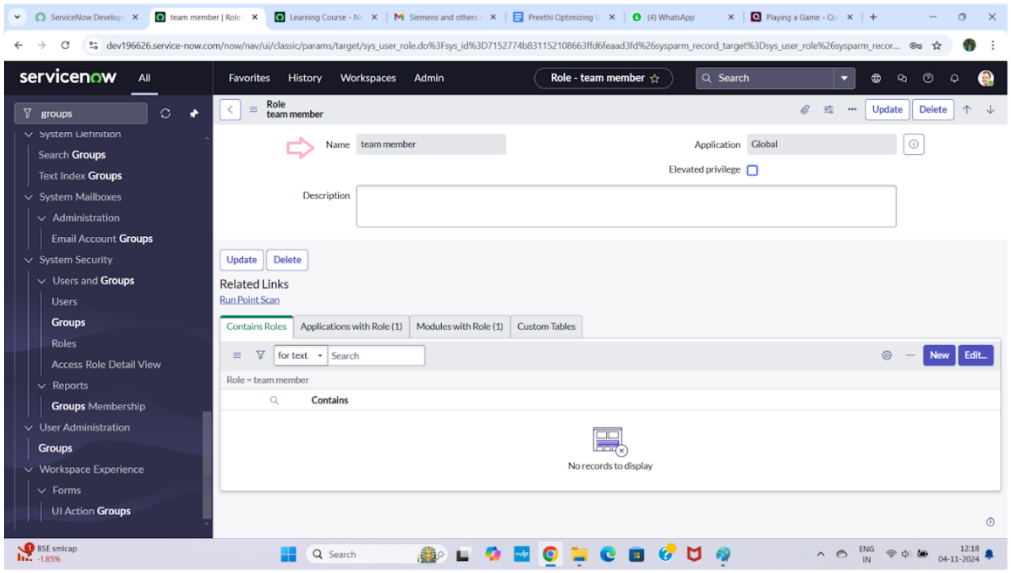
7.Create another role with the following details : Team member

8.Click on submit

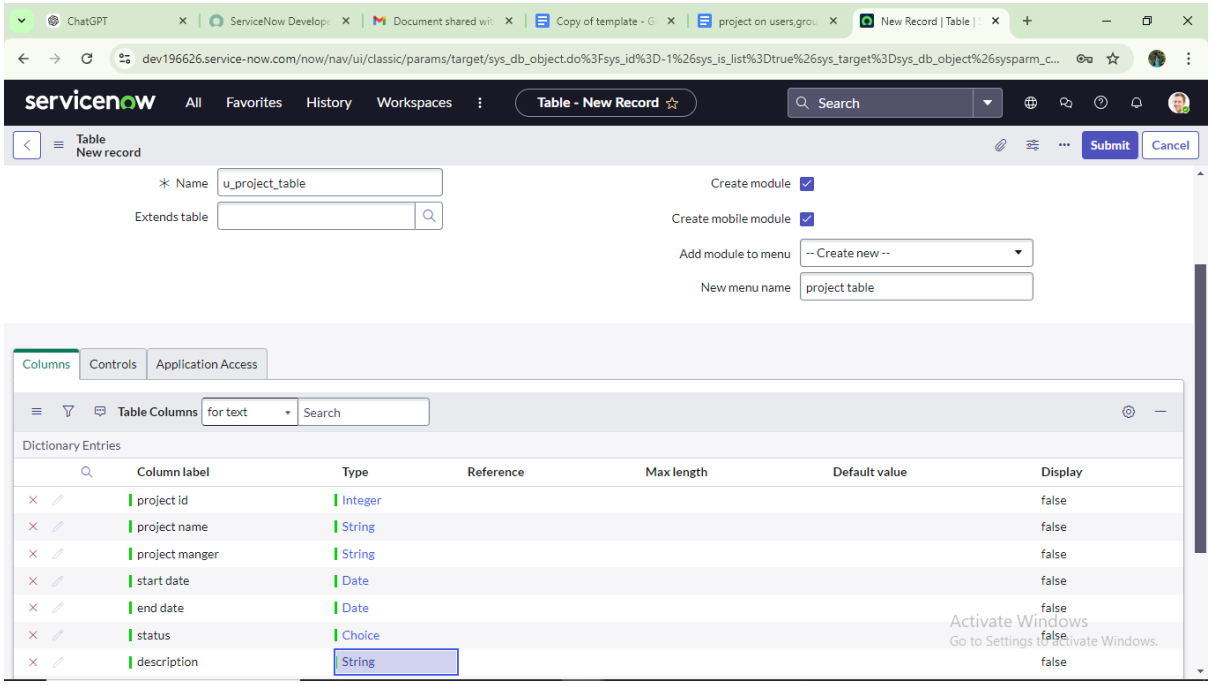
**Create Table**

1. Open service now.
2. Click on All >> search for tables
3. Select tables under system definition
4. Click on new

5. Fill the following details to create a new table
   Label : project table
   Check the boxes Create module & Create mobile module
6. Under new menu name : project table
7. Under table columns give the columns



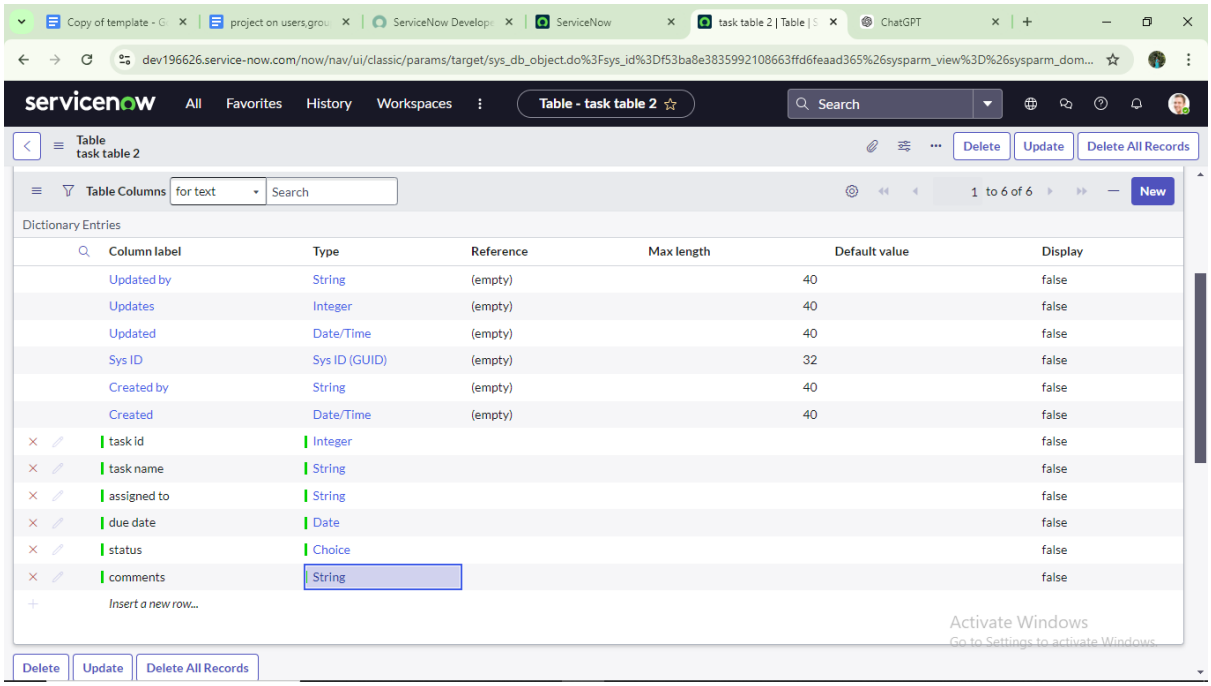

8. Click on submit



**Create one more table:**

9.Create another table as: task table 2 and fill with following details.

10. Click on submit.




**Assign users to project team group**

1.Open service now.

2.Click on All  >> search for groups

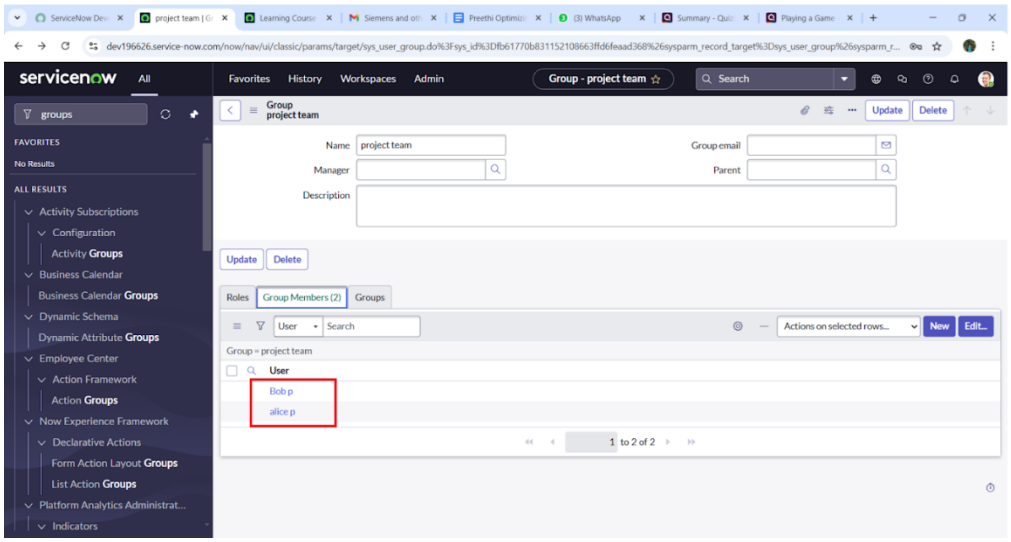
3.Select tables under system definition

4.Select the project team group

5.Under group members

6.Click on edit

7.Select  alice p and bob p and save




1.

**Assign roles to alice use**

1.Open servicenow.Click on All  >> search for user

2.Select tables under system definition

3.Select the project manager user

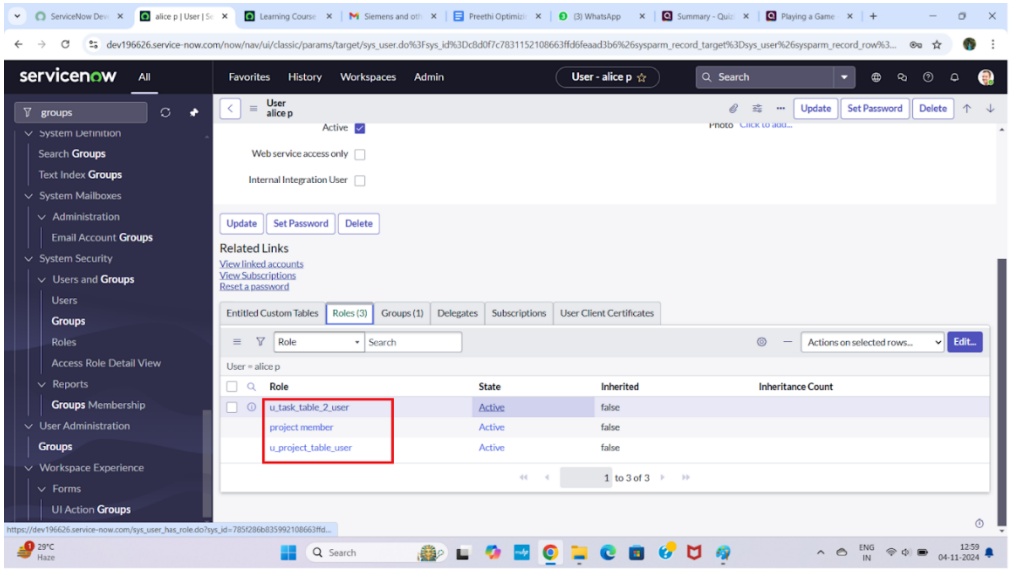
4.Under project manager

5.Click on edit

6.Select project member and save

7.click on edit add u_project_table role and u_task_table role

8.click on save and  update the form.




**2.Assign roles to bob user**

1. Open ServiceNow. Click on All  >> search for user

2.Select tables under system definition

3.Select the bob p user

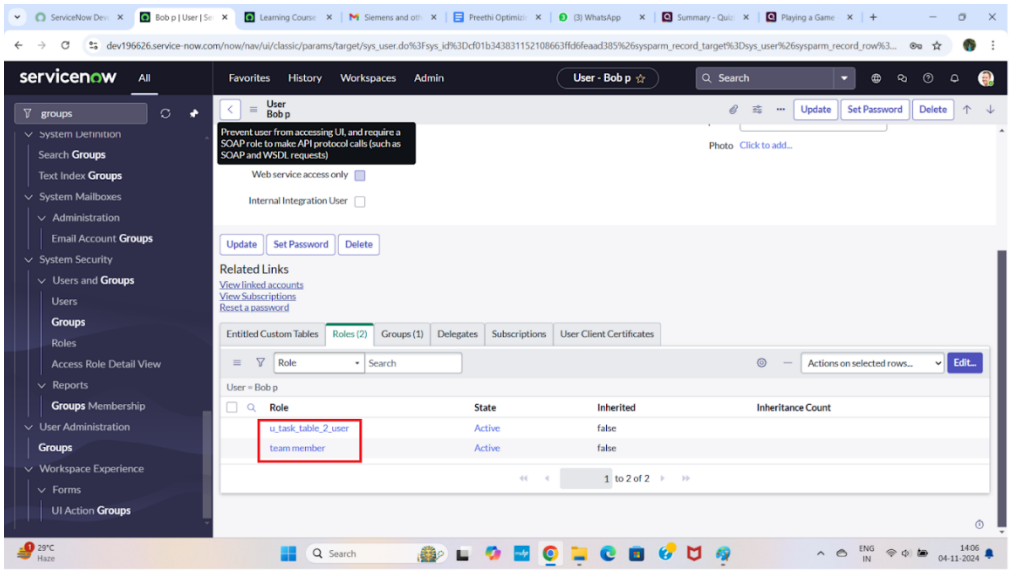
4.Under team member

5.Click on edit

6.Select team member and give table role  and save

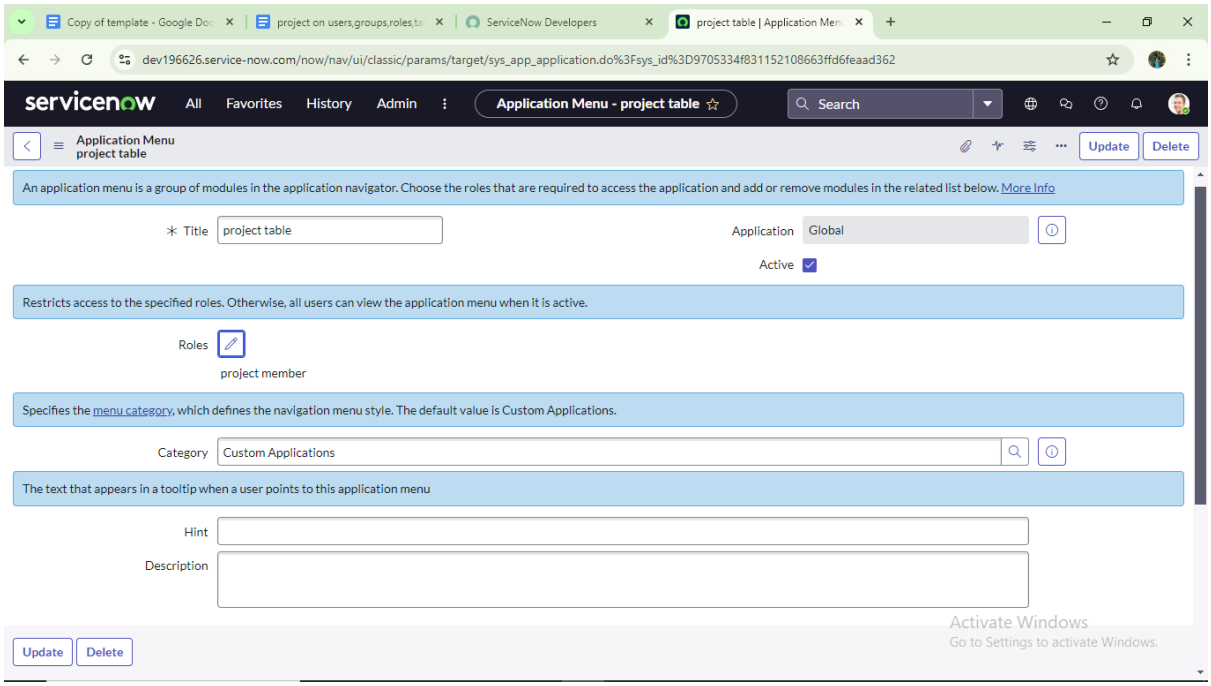
7. Click on profile icon Impersonate user to bob

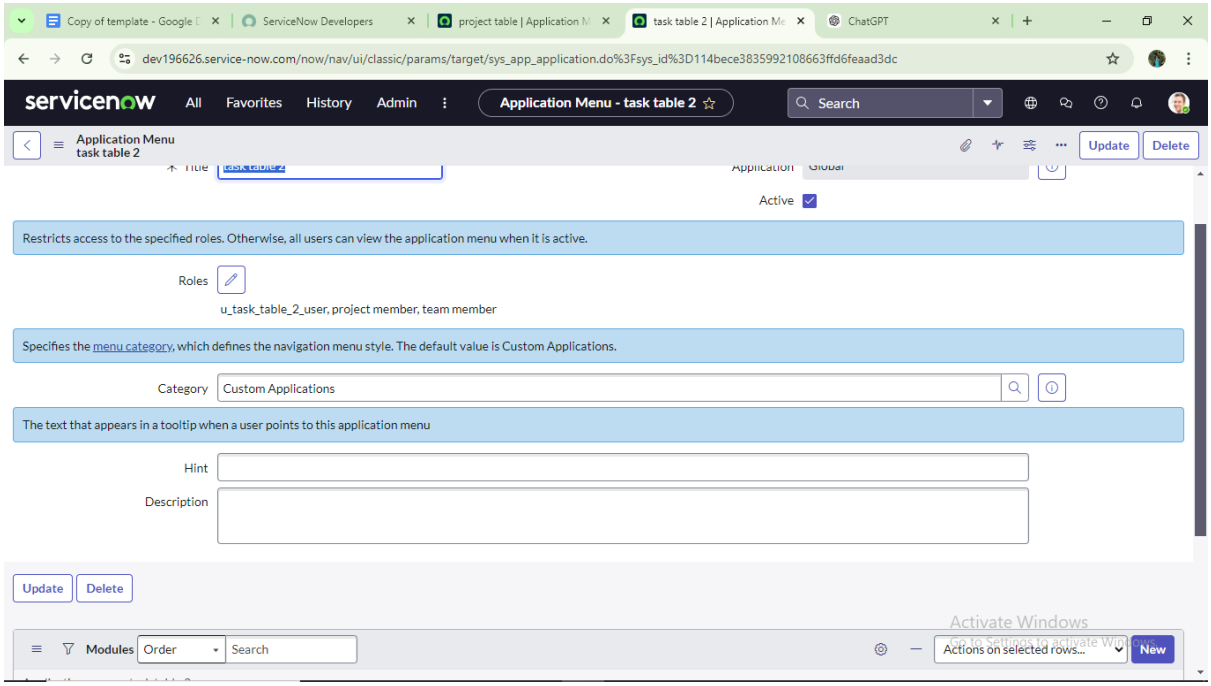
8. We can see the task table2.




**Assign table access to application**

1. while creating a table it automatically create a application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give the project member and team member role for task table 2 application


servicenow
All
Favorites
History
Admin
Application Menu - project table
Search
Application Menu
project table
Update
Delete
An application menu is a group of modules in the application navigator. Choose the roles that are required to access the application and add or remove modules in the related list below. More Info
Title
project table
Application
Global
Active
Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.
Roles
project member
Specifies the menu category, which defines the navigation menu style. The default value is Custom Applications.
Category
Custom Applications
The text that appears in a tooltip when a user points to this application menu
Hint
Description
Update
Delete
Activate Windows
Go to Settings to activate Windows.


servicenow
All
Favorites
History
Admin
Application Menu - task table 2
Search
Application Menu
task table 2
Update
Delete
Active
Restricts access to the specified roles. Otherwise, all users can view the application menu when it is active.
Roles
u_task_table_2_user, project member, team member
Specifies the menu category, which defines the navigation menu style. The default value is Custom Applications.
Category
Custom Applications
The text that appears in a tooltip when a user points to this application menu
Hint
Description
Update
Delete
Modules
Order
Search
Actions on selected rows...
New
Activate Windows

## Conclusion:

This scenario highlights a structured approach to project management, showcasing the roles of Alice and Bob within a defined workflow. With Alice's oversight and Bob's execution, the team effectively collaborates to ensure project success. The use of tables organizes key information, facilitating easy tracking of projects, tasks, and progress updates. Overall, this system promotes accountability, enhances communication, and leads to the successful completion of projects.