Project Title: Optimizing User, Group, and Role Management with Access Control and Workflows

Team ID : NM2025TMID00616

Team Size : 4

Team Leader : Abdullah Ahmad A

Team member : Aswin Balaji S

Team member : Akalya A

Team member : Priyadharshini L

Project Objective:

The main objective of this project is to streamline and automate the management of users, groups,
and roles in ServiceNow. By leveraging access control mechanisms and workflow automation, this
project aims to enhance security, reduce manual administrative overhead, and ensure that appropriate permissions are consistently enforced across the platform.

Introduction:

In large organizations using ServiceNow, managing user access can be a challenging task due to the complexity of multiple user roles, departments, and access needs. Improperly managed roles and groups can lead to security vulnerabilities and operational inefficiencies. This project focuses
on optimizing these processes through automation, streamlined workflows, and strong access control policies.

Project Scope:

1. Automate user provisioning and de-provisioning using ServiceNow workflows.
2. Implement a structured role-based access control (RBAC) system.
3. Create dynamic groups based on department, job title, or function.
4. Integrate approval workflows for role or group changes.
5. Develop custom dashboards for administrators to monitor access activities.
6. Ensure compliance with organizational security and IT governance policies.

System Architecture:

The architecture leverages ServiceNow's core components, including the User, Group, and Role tables, Access Control Lists (ACLs), and Flow Designer. The project integrates ServiceNow's

built-in features like Flow Designer and Scripted REST APIs for automation, while ensuring modular
design for scalability and maintainability.

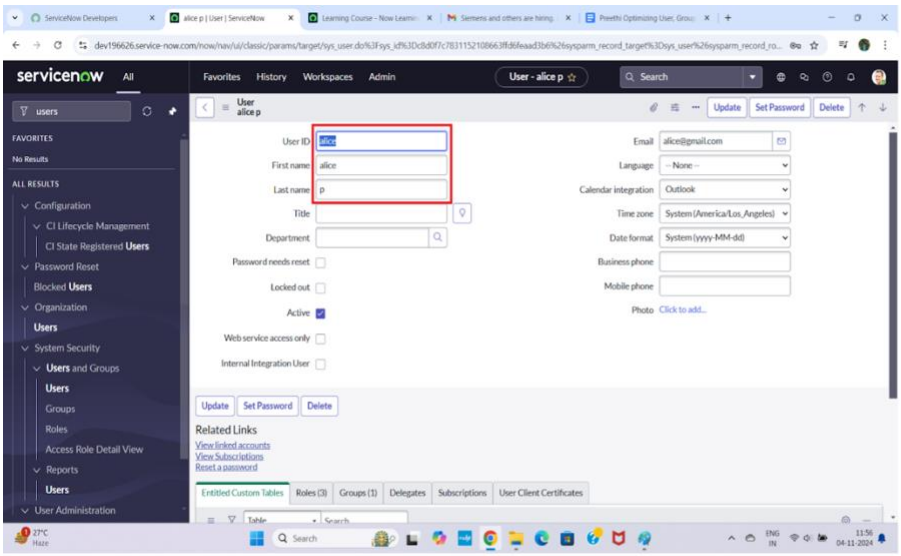
Implementation Steps:
1. **Requirement Analysis:** Identify access needs across departments and roles.
2. **Design Phase:** Define user and group hierarchies, and map roles to responsibilities.
3. **Workflow Creation:** Use Flow Designer to automate onboarding/offboarding and access change requests.
4. **Access Control Configuration:** Implement ACLs to secure records and forms based on role
and group membership.
5. **Testing:** Conduct user acceptance testing (UAT) to validate workflows and permissions.
6. **Deployment:** Move configurations to production using update sets.
7. **Monitoring & Optimization:** Set up dashboards and reports for ongoing governance and optimization.

Problem Statement:

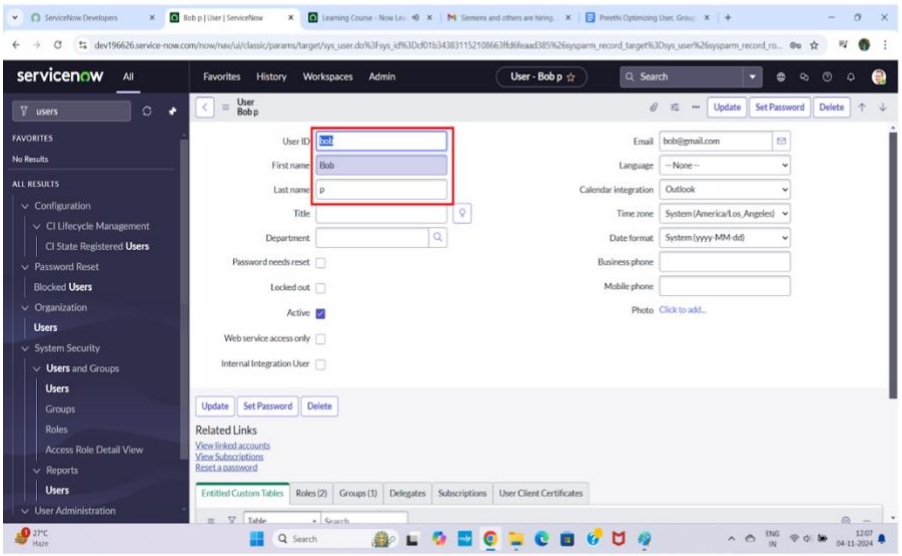
In a small project management team consisting of a Project Manager (Alice) and a Team Member (Bob), there is a need to efficiently manage project tasks and ensure accountability throughout the project lifecycle. The current system lacks clear role definitions, access controls, and a structured workflow, leading to confusion regarding task assignments and progress tracking.

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



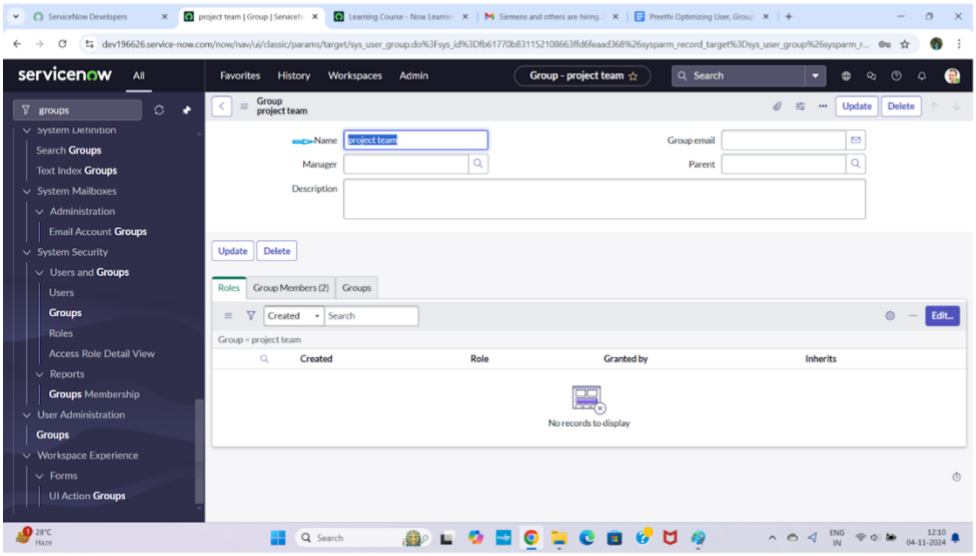
7.
8. **Create one more user:**
9. Create another user with the following details
10. Click on submit



11.

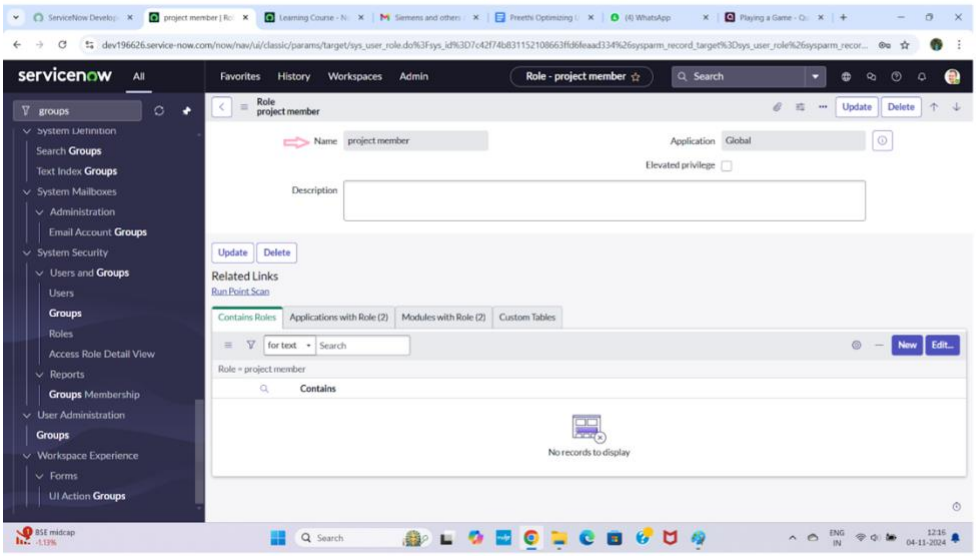
Create Groups

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



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:

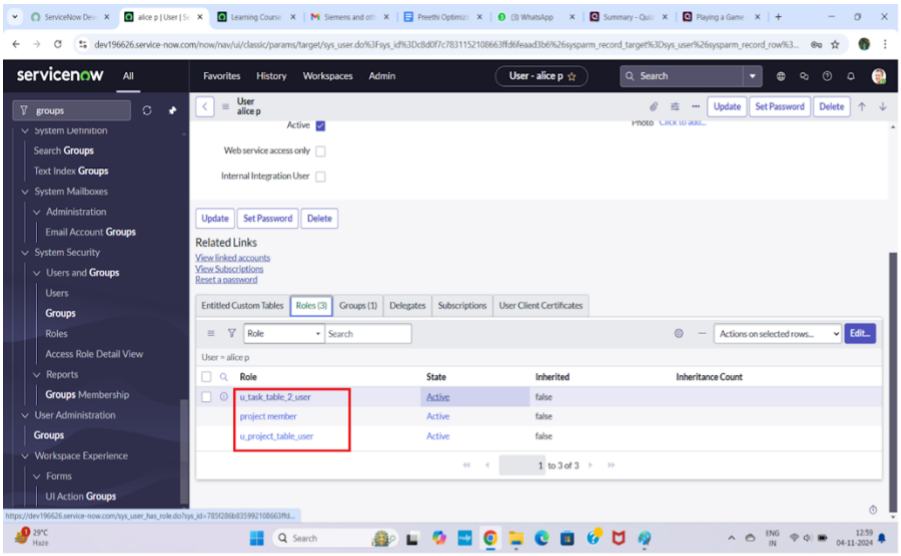
7.Create another role with the following details

8.Click on submit

Assign roles to alice user

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

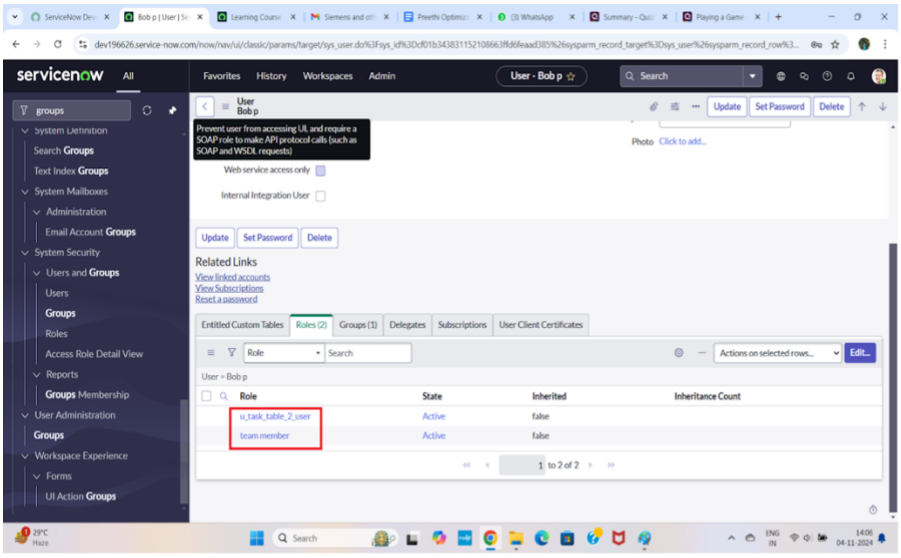
8. click on save and update the form.



Assign roles to bob user

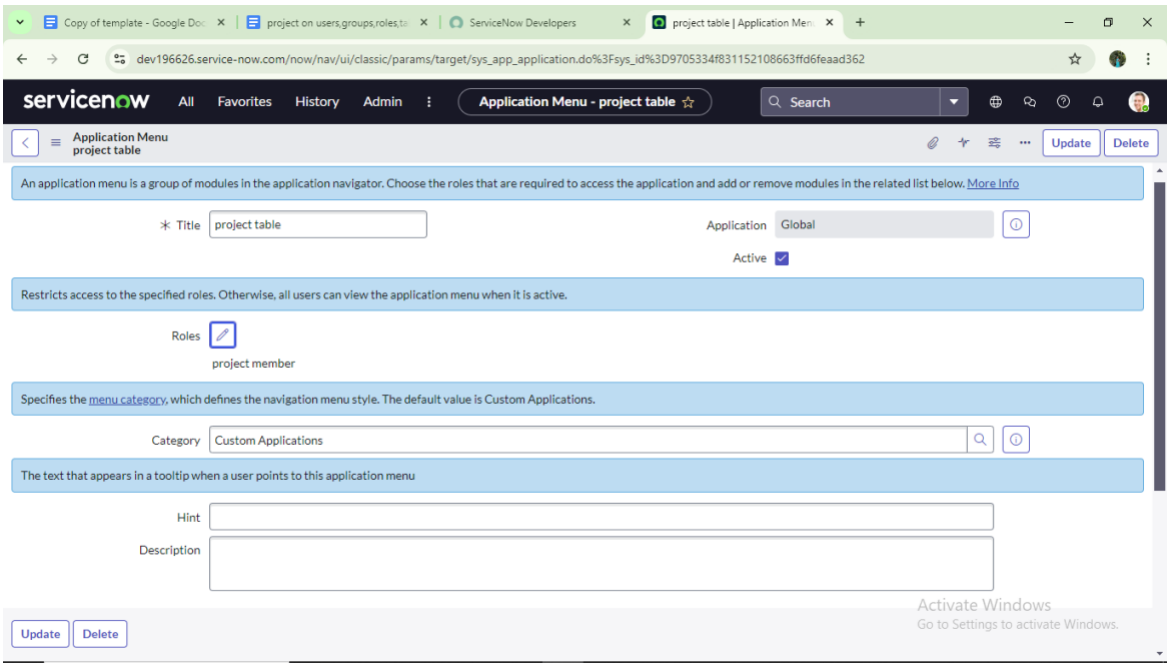
1. Open servicenow.Click on All >> search for user
2. Select tables under system definition
3. Select the bob p user
4. Under team member
5. Click on edit
6. Select team member and give table role and save
7. Click on profile icon Impersonate user to bob

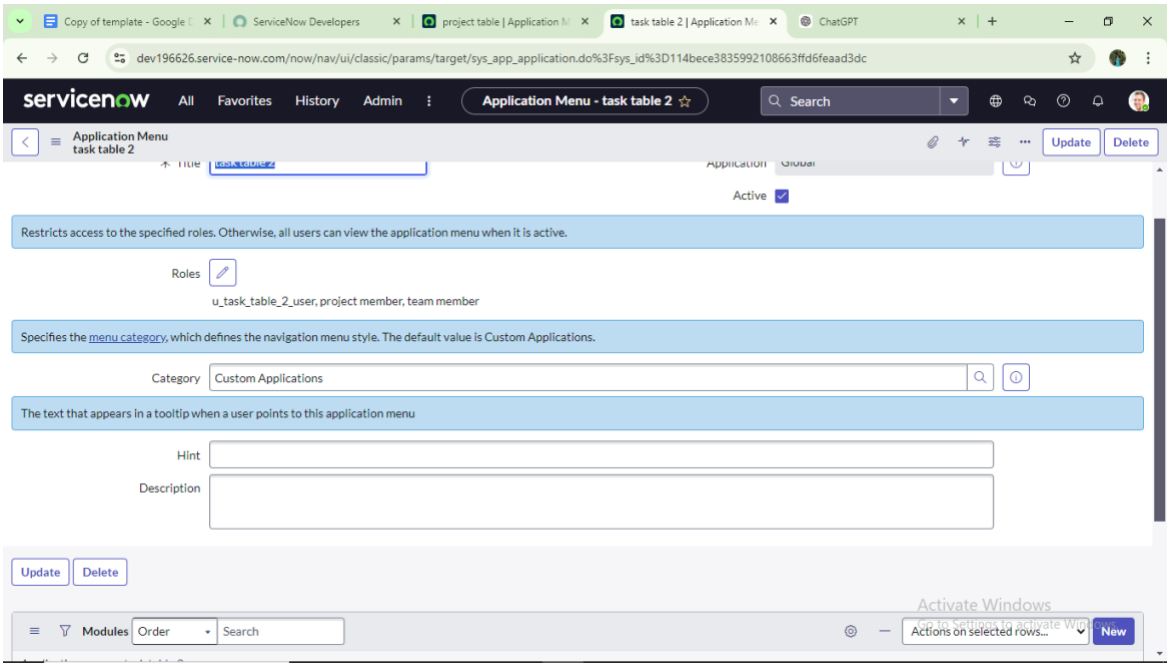
8. We can see the task table2.



Assign table access to application

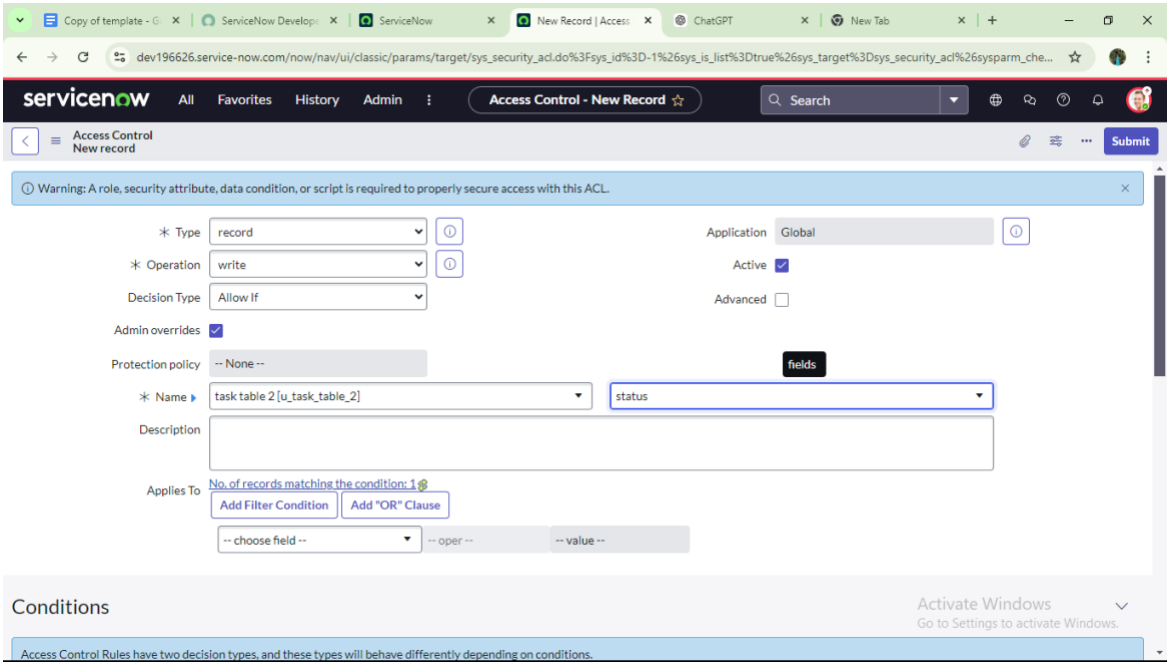
1. while creating a table it automatically create a application and module for that table
2. Go to application navigator search for search project table application
3. Click on edit module
4. Give project member roles to that application
5. Search for task table2 and click on edit application.
6. Give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

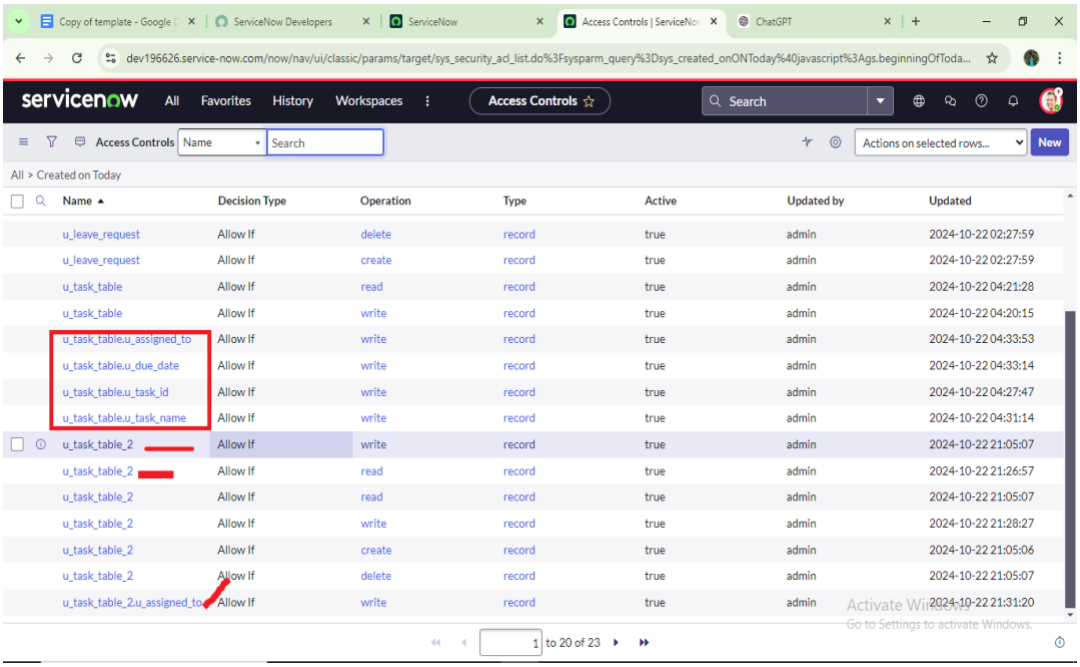
Create ACL

1. Open service now.
2. Click on All >> search for ACL
3. Select Access Control(ACL) under system security
4. Click on elevate role
5. Click on new
6. Fill the following details to create a new ACL

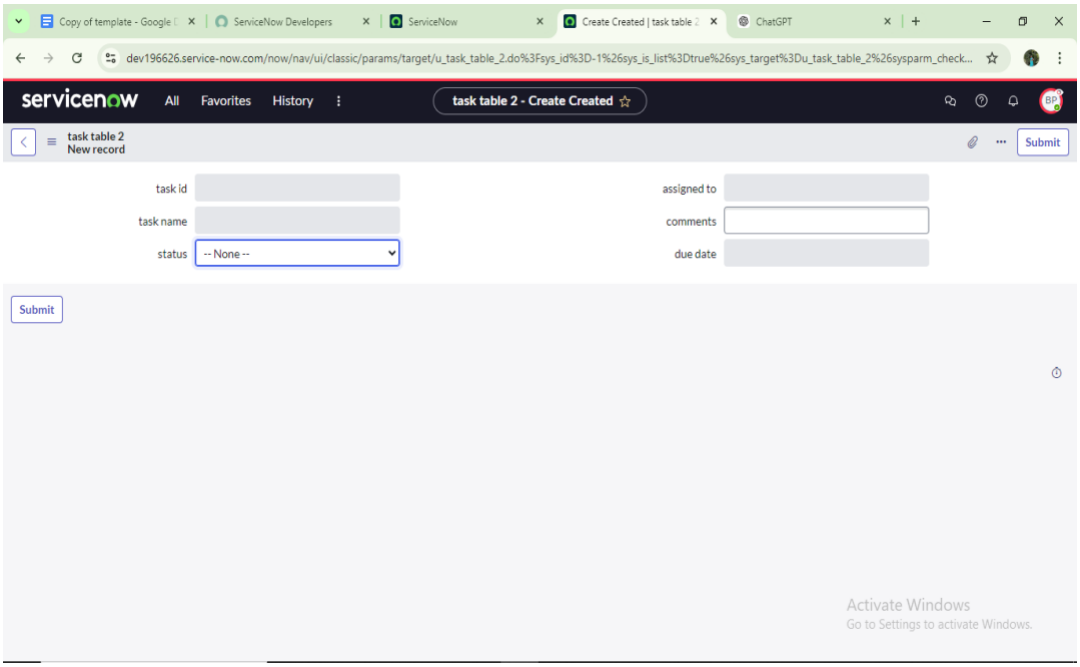


7. Scroll down under requires role
8. Double click on insert a new row
9. Give task table and team member role
10. Click on submit

11. Similarly create 4 acl for the following fields

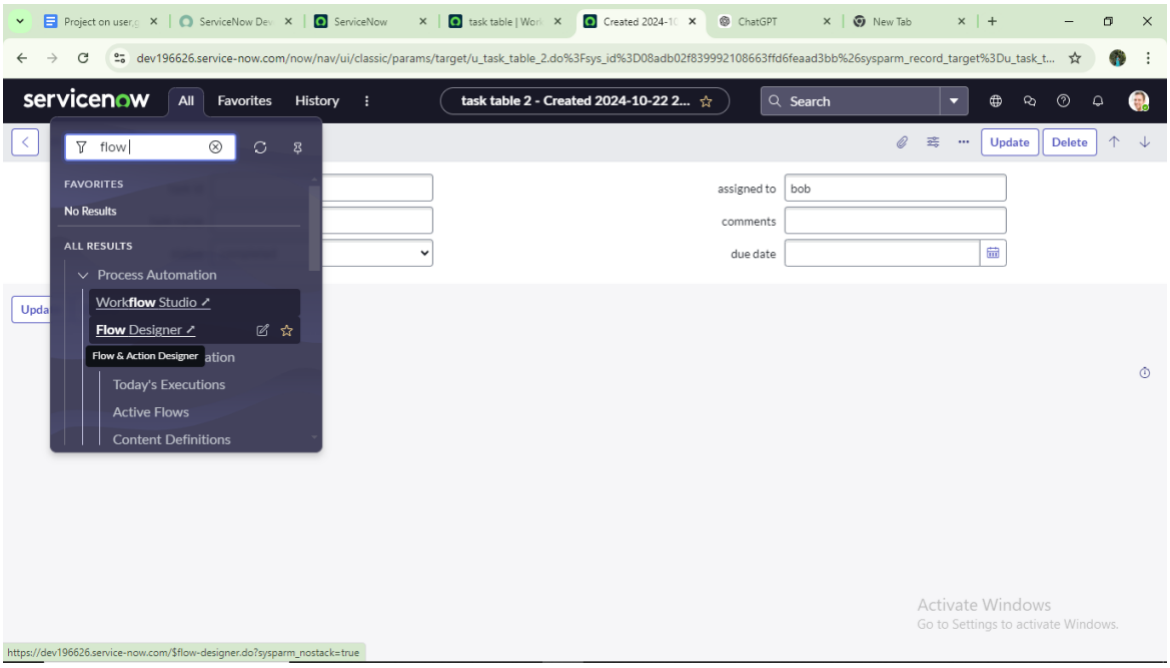


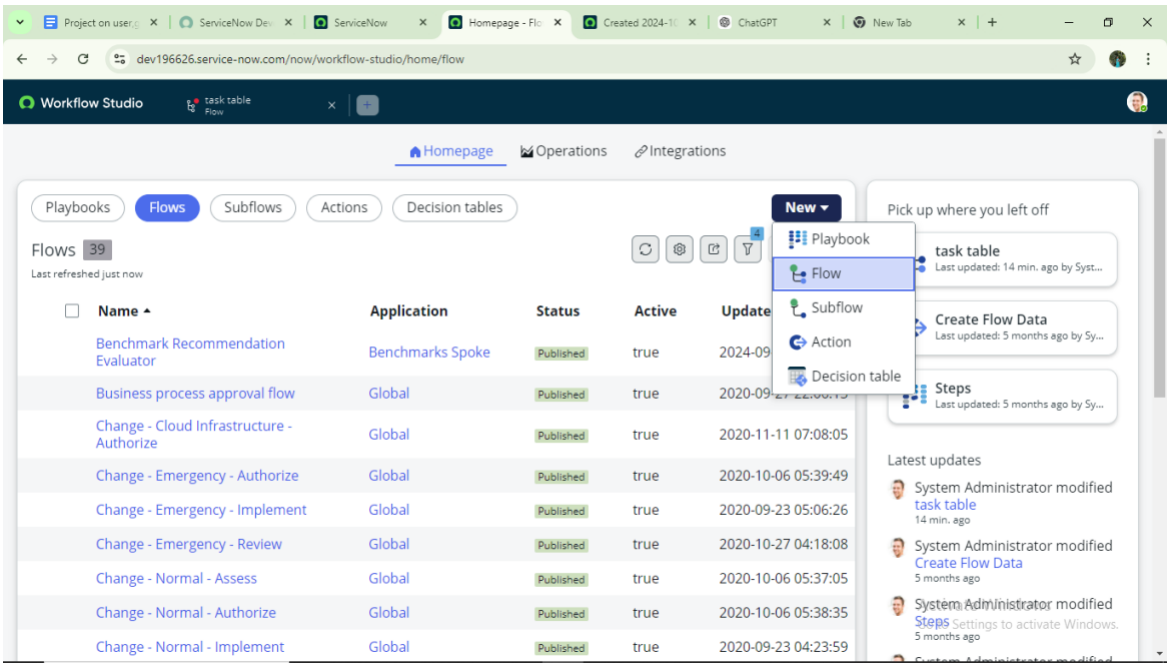
12. Click on profile on top right side
13. Click on impersonate user
14. Select bob user
15. Go to all and select task table2 in the application menu bar
16. Comment and status fields are have the edit access

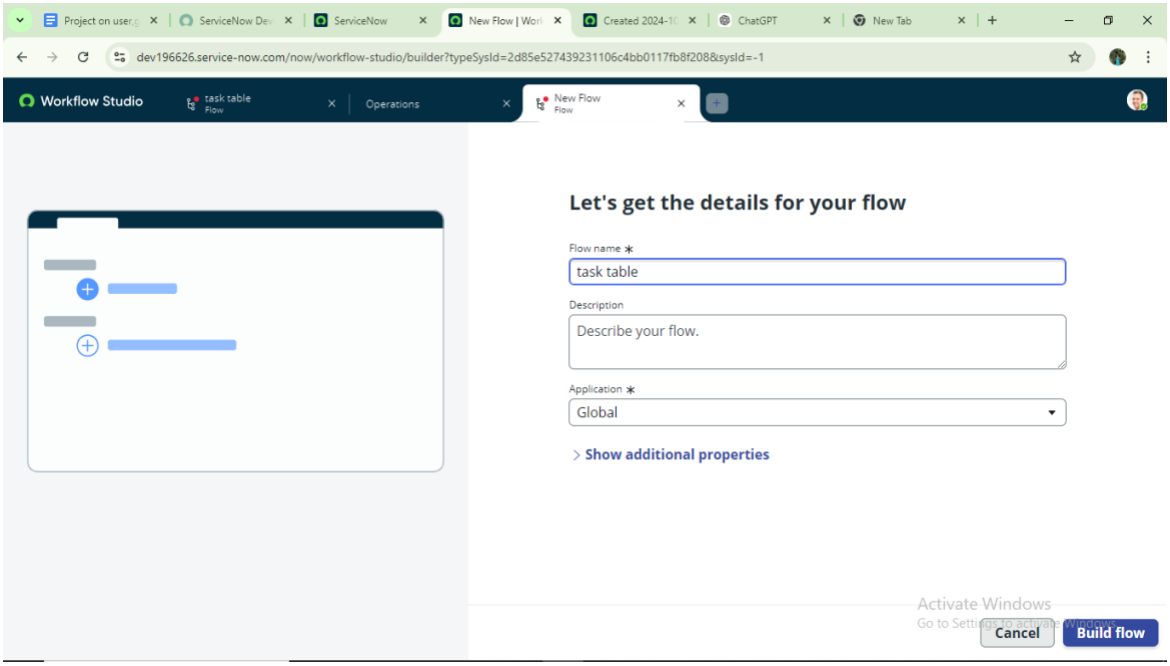


Create a Flow to Assign operations ticket to group

1. Open service now.
2. Click on All >> search for Flow Designer
3. Click on Flow Designer under Process Automation.
4. After opening Flow Designer Click on new and select Flow.
5. Under Flow properties Give Flow Name as “ task table”.
6. Application should be Global.
7. Click build flow.




dev196626.service-now.com/now/workflow-studio/home/flow
Workflow Studio
task table
Flow
Homepage
Operations
Integrations
Playbooks
Flows
Subflows
Actions
Decision tables
New
Flows 39
Last refreshed just now
Name
Application
Status
Active
Update
Benchmark Recommendation Evaluator
Benchmarks Spoke
Published
true
2024-09
Business process approval flow
Global
Published
true
Change - Cloud Infrastructure - Authorize
Global
Published
true
2020-11-11 07:08:05
Change - Emergency - Authorize
Global
Published
true
2020-10-06 05:39:49
Change - Emergency - Implement
Global
Published
true
2020-09-23 05:06:26
Change - Emergency - Review
Global
Published
true
2020-10-27 04:18:08
Change - Normal - Assess
Global
Published
true
2020-10-06 05:37:05
Change - Normal - Authorize
Global
Published
true
2020-10-06 05:38:35
Change - Normal - Implement
Global
Published
true
2020-09-23 04:23:59
Playbook
Flow
Subflow
Action
Decision table
Pick up where you left off
task table
Last updated: 14 min. ago by Syst...
Create Flow Data
Last updated: 5 months ago by Sy...
Steps
Last updated: 5 months ago by Sy...
Latest updates
System Administrator modified task table
14 min. ago
System Administrator modified Create Flow Data
5 months ago
System Administrator modified Steps
5 months ago

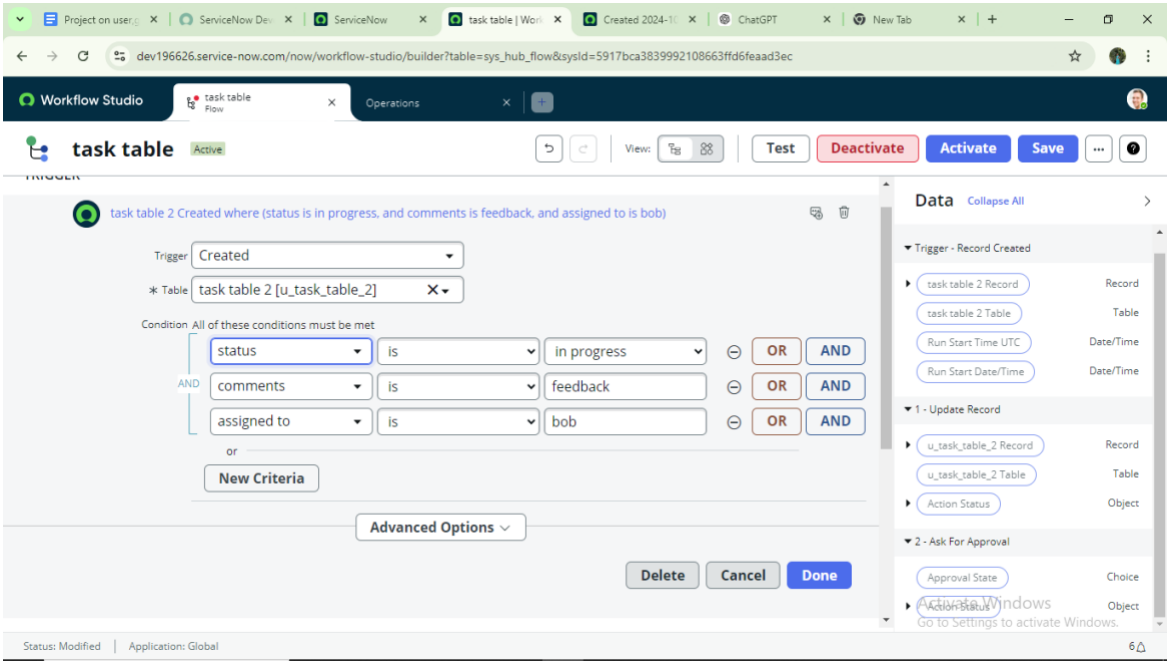

dev196626.service-now.com/now/workflow-studio/builder?typeSysId=2d85e527439231106c4bb0117fb8f208&sysId=-1
Workflow Studio
task table
Flow
Operations
New Flow
Flow
Let's get the details for your flow
Flow name *
task table
Description
Describe your flow.
Application *
Global
Show additional properties
Activate Windows
Cancel
Build flow

next step:

1. Click on Add a trigger
2. Select the trigger in that Search for “create record” and select that.
3. Give the table name as “ task table ”.
4. Give the Condition as Field : status Operator :is Value : in progress

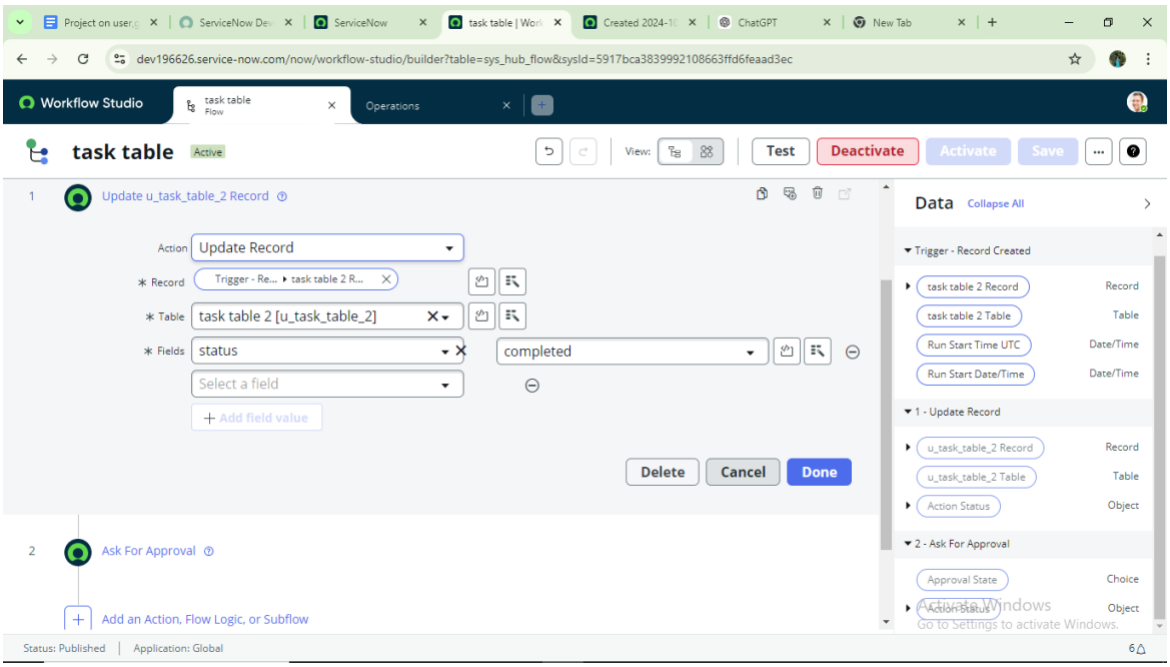
   Field : comments Operator :is Value : feedback
   Field : assigned to Operator :is Value : bob

5. After that click on Done.



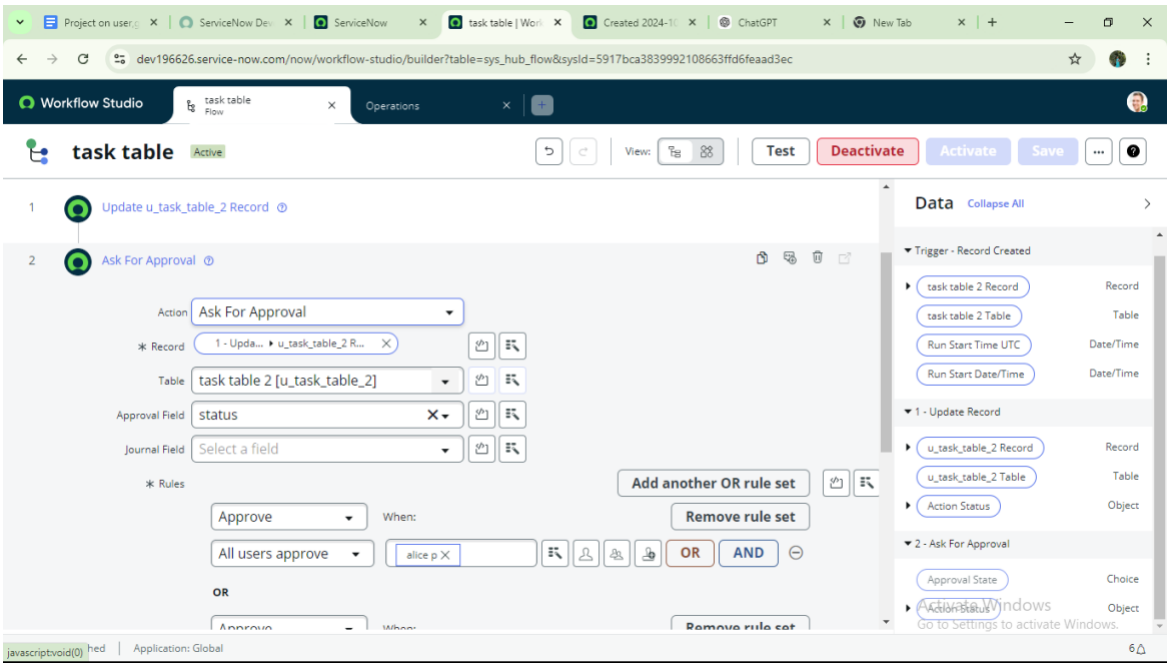
Next step:

1. Click on Add an action.
2. Select action in that ,search for “ update records”.
3. In Record field drag the fields from the data navigation from Right Side(Data pill)
4. Table will be auto assigned after that
5. Add fields as “status” and value as “completed”
6. Click on Done.

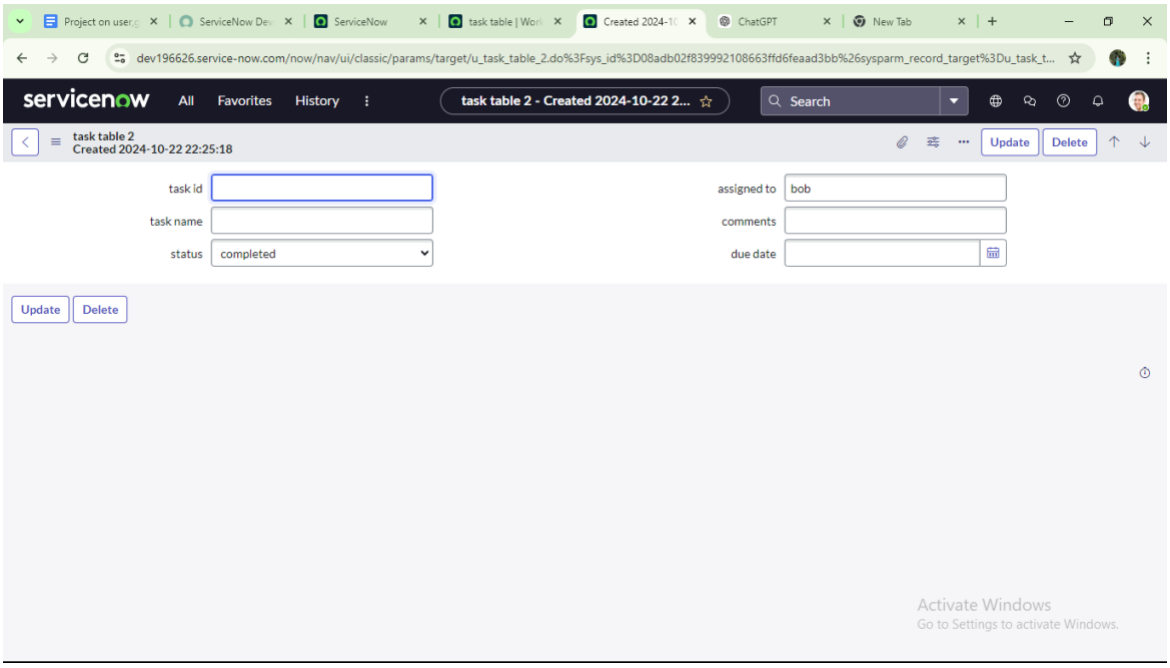


Next step:

1. Now under Actions.
2. Click on Add an action.
3. Select action in that ,search for “ ask for approval ”.
4. In Record field drag the fields from the data navigation from Right side
5. Table will be auto assigned after that
6. Give the approve field as “ status”
7. Give approver as alice p
8. Click on Done.

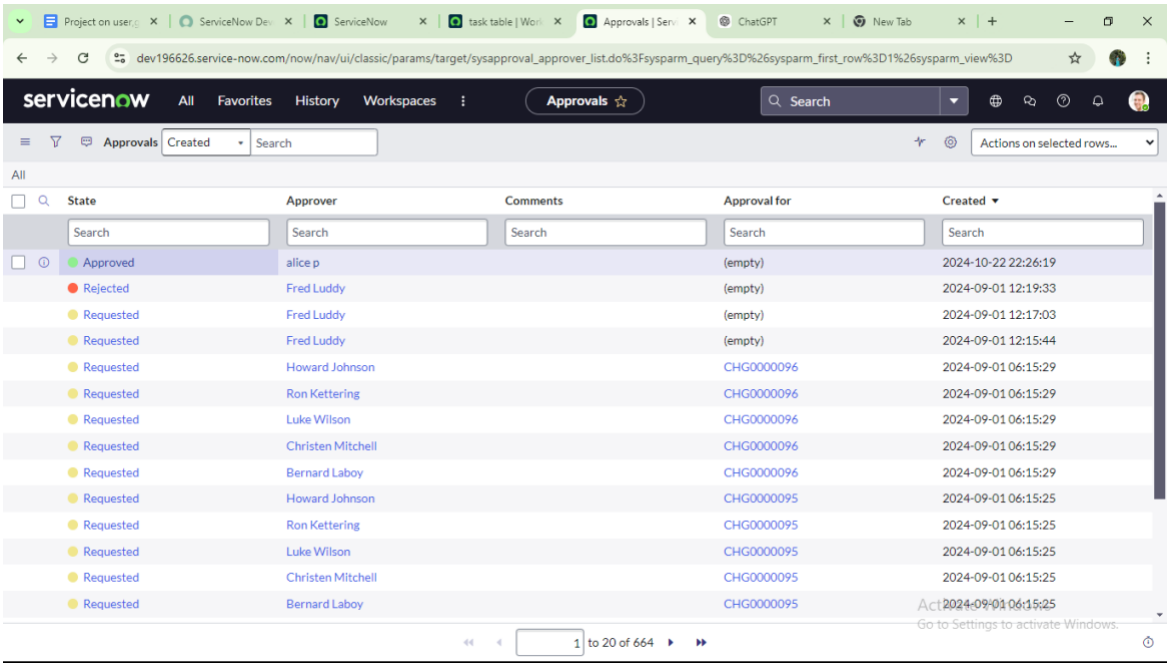


1. Go to application navigator search for task table.
2. It status field is updated to completed



1. Go to application navigator and search for my approval
2. Click on my approval under the service desk.

3. Alice p got approval request then right click on requested then select approved



Tools and Technologies Used:
- ServiceNow Platform
- Flow Designer
- Access Control Lists (ACLs)
- Service Catalog and Request Management
- Scripted REST APIs
- Update Sets for migration
- Reporting and Dashboard modules

Expected Outcomes:
1. Reduced manual effort in managing users and roles.
2. Improved compliance through automated access reviews.
3. Enhanced security with consistent role-based access enforcement.
4. Increased transparency and visibility through dashboards and reports.
5. Faster onboarding and offboarding processes.

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.