Project Design Phase

Proposed Solution

Date	31/10/25
Team ID	NM2025TMID09014
Project Name	Optimization User, group and role management with access control and workflow
Maximum Mark	2 Marks

Proposed Solutions

S. No	Parameter	Description
1.	Problem Statement (Problem to be solved)	In many enterprise systems, managing users, groups, and roles manually leads to redundancy, inconsistent access privileges.
2.	Idea / Solution Description	Implement an optimized Role-Based Access Control (RBAC) and workflow automation system integrated with centralized user and group management.
3.	Novelty / Uniqueness	It automated access provisioning and de-provisioning workflows, reducing manual administrative effort and eliminating duplicate access roles.
4.	Social Impact / Customer	Users experience faster role assignments and seamless workflow approvals, resulting in improved productivity and satisfaction.
5.	Business Model (Revenue Model)	The solution can be implemented with existing tools like ServiceNow. It

		reduces operational costs by minimizing manual tasks, ensuring compliance, and preventing data breaches — leads financial savings for organizations.
6.	Scalability of the Solution	The model can easily scale across departments and larger organizations. Additional modules like workflow escalation, temporary access requests, and access review automation can be integrated.

Conclusion

The project "Optimization of User, Group, and Role Management with Access Control and Workflow" addresses critical challenges in managing access privileges across enterprise systems. By implementing automated workflows and rule-based access control, the solution eliminates redundancy, strengthens data security, and enhances efficiency in user management processes. It promotes accountability, reduces administrative workload, and ensures compliance with organizational policies.

With successful integration of policy-driven access rules and continuous monitoring, this project lays a strong foundation for building smarter, more secure, and compliant enterprise access management systems.

Solution Description

To optimize user and role management, a policy-driven automation module will be implemented.

It will:

Analyze existing user-role relationships and identify redundant permissions.

Define role hierarchies aligned with organizational structure.

Automate role assignments through approval workflows and trigger-based actions.

Continuously monitor and log access changes for auditing and compliance.

This streamlined design ensures a plugin-free, scalable.