<h1 style="text-align:center">Project Design Phase-II Data Flow Diagram & User Stories</h1>

Date	02 Nov 2025
Team ID	NM2025TMID04960
Project Name	Optimizing User, Group, and Role Management with Access Control and Workflows
Maximum Marks	4 Marks

Data Flow Diagram (DFD) – Project Overview

The **Data Flow Diagram (DFD)** provides a clear view of how data moves within the **ServiceNow Role and Access Management System**. It demonstrates the interaction between **users (Project Manager and Team Members)**, the **system processes (user creation, task management, and access validation)**, and the **data stores (user, task, and audit databases)**. This helps visualize how actions are performed, permissions are verified, and information is recorded in the system.

Key Components of the DFD:

1. **External Entities**

   - **Project Manager:** Initiates tasks, assigns team members, and reviews task progress.

   - **Team Member:** Receives and updates tasks assigned by the manager.

2. **Processes**

   - **User & Role Setup:** Creates users and assigns them to specific roles or groups.

   - **Task Workflow:** Manages task creation, updates, and completion tracking.

   - **Access Verification:** Ensures that only users with the required roles can perform certain actions.

   - **Approval Workflow:** Handles status approvals when tasks are marked completed.

   - **Audit & Reporting:** Logs user actions and generates progress reports for management.
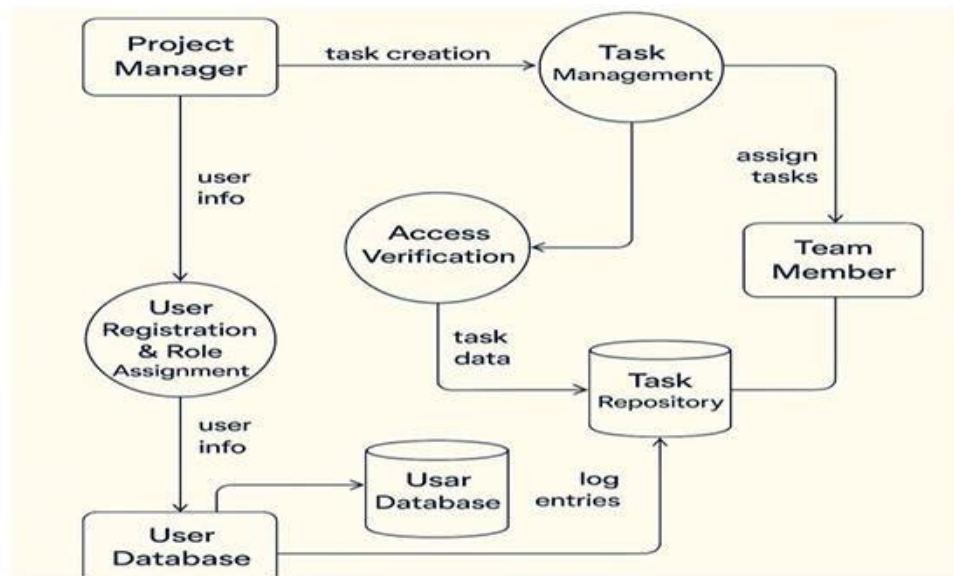
3. **Data Stores**

   - **User Database:** Stores user profiles, assigned roles, and group memberships.

   - **Task Database:** Maintains records of task details, status, and assignees.

   - **Audit Logs:** Capture every role change, status update, or workflow trigger for accountability.

4. **Data Flows**

   - User data flows from registration → role assignment → access validation.

   - Task data moves between the Project Manager and Team Member through workflows.

   - Approval status and reports are generated dynamically and stored in audit logs.

This DFD provides a clear visual summary of your system's logic and data movement. If you'd like, I can help sketch it out or convert it into a presentation slide for easier sharing.

Example:

User Stories for Role-Based Access Control System:

User Type	Functional Requirement (Epic)	User Story No.	User Story / Task	Acceptance Criteria	Priority	Release
Administrator	User & Role Management	USN-1	As an admin, I can create users and assign them specific roles (Project Manager, Team Member).	Roles are stored and linked to users successfully.	High	Sprint 1
Administrator	Access Control	USN-2	As an admin, I can configure ACLs for tables to control data access.	Users can view/edit only the records allowed for their role.	High	Sprint 1
Project Manager	Task Assignment	USN-3	As a Project Manager, I can create and assign tasks to team members.	Tasks are visible only to assigned users.	Medium	Sprint 1
Team Member	Task Updates	USN-4	As a Team Member, I can update task progress and mark tasks as completed.	Task status is updated and visible to the manager.	Medium	Sprint 2
Project Manager	Approval Workflow	USN-5	As a Project Manager, I receive approval requests when a task is marked completed.	Approval request triggers automatically.	Medium	Sprint 2
Administrator / Project Manager	Reporting & Analytics	USN-6	As an admin or manager, I can view task reports and user activity logs.	Reports display progress and user activity correctly.	Low	Sprint 2
Administrator	Audit & Monitoring	USN-7	As an admin, I can view change history for user roles and task modifications.	Logs capture every update accurately.	Low	Sprint 3