

Project Design Phase-III: Data Flow Diagram & User Stories

Field	Detail
Date	02 November 2025
Team ID	NM2025TMID00414
Project Name	Optimizing User Group and Role Management with Assess, Control, and Workflow
Maximum Marks	4 Marks

Data Flow Diagrams

A Data Flow Diagram (DFD) is a graphical representation of the information flow within a system. A well-designed DFD can depict the right amount of system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

In the project "Optimizing User Group and Role Management with Assess, Control, and Workflow," the DFD illustrates how **user access requests** are processed through the **Workflow Engine**, how **Access Assessment** data is verified, and how changes are committed to **Target Systems**. The DFD focuses on the flow between the **Request Portal**, the **Workflow Engine**, the **Role Repository**, and the **Provisioning Connectors**.

Example: Data Flow for Access Request

Flow Explanation:

1. **User Entity** submits an **Access Request** (data input) via the **Self-Service Portal (Process 1)**.
2. The Portal sends the request data to the **Workflow Engine (Process 2)**.
3. The Workflow Engine checks the **Role Repository (Data Store)** for role definitions and checks the **SoD Rules (Data Store)** for conflicts.
4. The request flows to the **Approver Entity** for a decision.
5. An **Approved Request** flows to the **Provisioning Connector (Process 3)**.
6. The Connector executes the change on the **Target System (External Entity)** and logs the transaction in the **Audit Log (Data Store)**.

User Stories

User stories define what different users need from the system in simple, goal-focused language. In this project, they help ensure the system meets the functional requirements of Assess, Control, and Workflow.

User Type	Functional Requirement	User Story / Task	Acceptance Criteria	Priority	Release
User	Access Request Workflow	US-1: As a new user, I want a self-service portal to request the Marketing	The role is provisioned within 5 minutes of final approval.	High	Sprint 2

User Type	Functional Requirement	User Story / Task	Acceptance Criteria	Priority	Release
		Specialist' role so I can begin my job duties on time.			
<b>Role Owner</b>	Periodic Access Recertification (Assess)	<b>US-2:</b> As a Manager, I want to receive an <b>automated notification</b> when my team's access is due for review so I can validate privileges and reduce risk.	All roles must be reviewed/revoked/approved within the 7-day campaign window.	High	Sprint 2
<b>Security Admin</b>	Role Definition & Mapping (Control)	<b>US-3:</b> As a Security Admin, I want to define a <b>granular set of permissions</b> for the 'Database Admin' role so that access is strictly limited to necessary functions.	The defined role must adhere to the Principle of Least Privilege and pass a pre-deployment risk assessment.	High	Sprint 1
<b>Auditor</b>	Automated Provisioning/De-provisioning (Workflow)	<b>US-4:</b> As an Auditor, I need a <b>central, immutable log</b> of all role assignments, approvals, and recertifications so that I can easily demonstrate compliance.	The log must contain the User ID, Timestamp, Role, Target System, and Approver for every transaction.	Medium	Sprint 3