REQUIREMENTS ANALYSIS

Solution Requirements :

DATE	
TEAM ID	LTVIP2025TMID30962
PROJECT NAME	Prevent User Deletion if Assigned to an Incident

1.Functional Requirements:

Following are the functional requirements of the proposed solution.

FR NO.	FUNCTIONAL REQUIREMENTS	SUB REQUIREMENTS
FR-1	User Creation	**1. Create User Account**: System allows creation of new user accounts. **2. Assign Roles**: System enables assignment of roles and permissions. **3. Validate User Input**: System validates user input data (e.g., email, name). **4. Generate Username**: System generates unique usernames. **5. Set Password**: System allows setting and managing user passwords. **6. Store User Data**: System stores user information securely.
FR-2	Assign Incident To User	**1. Incident Selection**: System allows selection of incidents to assign. **2. User Selection**: System enables selection of users to assign incidents to. **3. Assignment Notification**: System notifies assigned users of new incidents. **4. Incident Status Update**: System updates incident status upon assignment.

		5. Assignment Tracking: System tracks incident assignments and history. **6. Validation**: System validates assignment rules (e.g., user availability, incident priority).
FR-3	Business Rule Creation	**1.Rule Definition**: System allows definition of business rules (e.g.. incident assignment, escalation). **2. Condition Specification**: System enables specification of conditions for rule application. **3. Action Specification**: System allows definition of actions to take when rules are triggered. **4. Rule Validation**: System validates business rules for correctness and consistency. **5. Rule Prioritization**: System enables prioritization of business rules. **6. Rule Activation/Deactivation**: System allows activation and deactivation of business rules.
FR-4	Test Deletion	**1. Validation Check**: System checks if the test is in use or has dependencies. **2.Confirmation Prompt**: System prompts for confirmation before deleting the test. **3. Deletion Logging**: System logs test deletion for auditing purposes. **4. Dependent Object Handling**: System handles dependent objects (e.g., test results, history). **5. Authorization Check**: System verifies user authorization for test deletion.
FR-5	Test With Unassigned User	**1. User Selection**: System allows selection of unassigned users for testing. **2. Test Assignment**: System enables assignment of tests to unassigned users.

		3. Notification: System notifies. unassigned users of test assignments. **4. Tracking**: System tracks test assignments and user status. **5. Validation**: System validates user assignment and test status.

2.Non-Functional Requirements:

Following are the non-functional requirements of the proposed solution.

NFR NO.	NON-FUNCTIONAL REQUIREMENTS	DESCRIPTION
NFR-1	Usability	Users clearly understand why deletion is blocked, receive guidance on resolving the issue, and can take corrective actions easily, leading to a smoother and more intuitive user experience.
NFR-2	Security	This security measure ensures that users cannot be deleted from the system if they are currently assigned to any active or historical incident records. It helps maintain data integrity and traceability by preserving critical incident associations and preventing orphaned records.
NFR-3	Reliability	This feature enhances system reliability by ensuring that essential user-incident relationships remain intact. By preventing the deletion of users linked to incidents, it avoids data inconsistencies and ensures accurate historical records for auditing and reporting.
NFR-4	Performance	This feature is optimized to quickly check user-incident associations before allowing deletion. It ensures minimal impact on system performance while maintaining real-time validation, enabling smooth and efficient user management without delays.
NFR-5	Availability	This control supports system availability by ensuring that incident data remains complete and accessible. By preventing

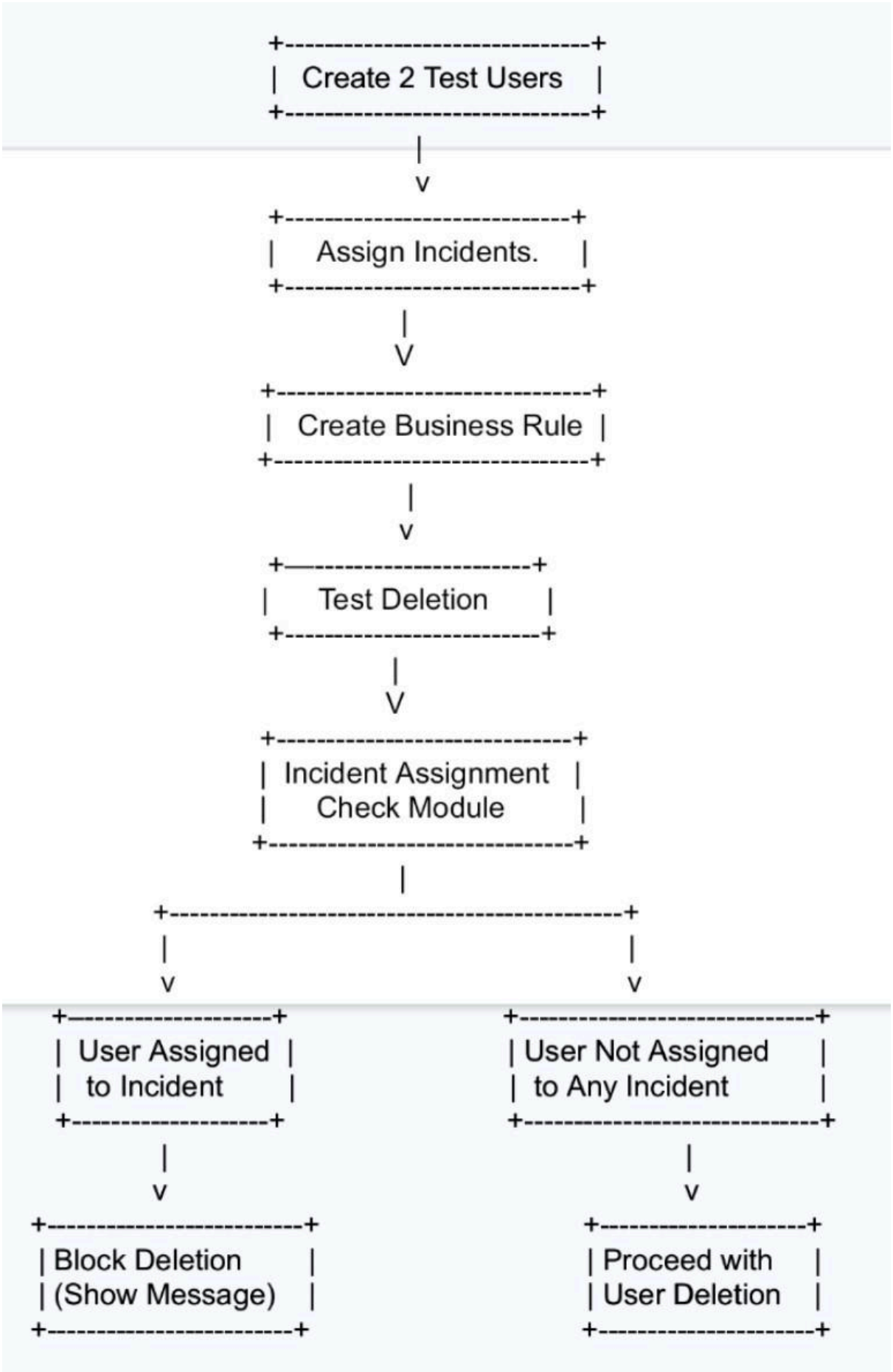
		the deletion of users tied to incidents, it helps avoid system errors or disruptions caused by missing references, maintaining continuous access to accurate incident information.
NFR-6	Scalability	The feature is designed to scale efficiently with growing data. It can handle increasing numbers of users and incidents without performance degradation, ensuring consistent enforcement of deletion rules as the system expands.

Data Flow Diagrams :

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear OFD can depict the right amount of the system requirement graphically. It shows how data ettere and leaves the system, what changes the information, and where data is stored.

Uses :

1. **Visualize System Processes**:
DFDs help visualize the processes and data flows involved in preventing user deletion.
2. **Identify Data Dependencies**: DFDs identify dependencies between user data and incident assignments.
3. **Design System Logic:** DFDs aid in designing the system logic for preventing user deletion.
4. **Improve System Understanding:** DFDs facilitate understanding of the system's data processing and validation.
5. **Detecting Potential Issues**: DFDs help detect potential issues or bottlenecks in the system.


Create 2 Test Users
Assign Incidents.
Create Business Rule
Test Deletion
Incident Assignment Check Module
User Assigned to Incident
User Not Assigned to Any Incident
Block Deletion (Show Message)
Proceed with User Deletion

Technology Stack :

Service now :

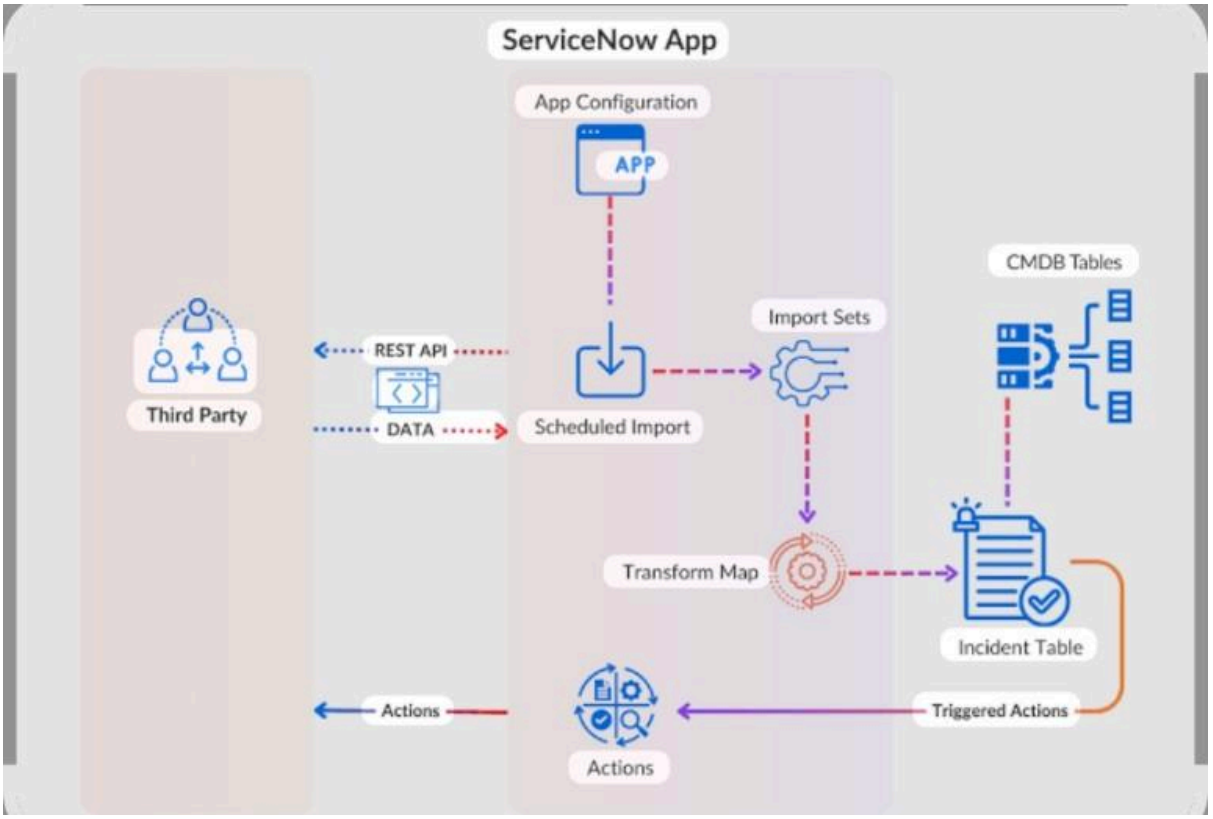
1. **Incident Management**: Automate incident detection, assignment, and resolution.
2. **Change Management**: Manage changes to IT infrastructure and services.
3. **Problem Management**: Identify and resolve root causes of incidents.
4. **Reporting and Analytics**: Provide insights into IT operations and performance.
5. **Security and Compliance**: Ensure data security and compliance with regulations.
6. **User Experience**: Provide an intuitive and user-friendly interface.

Architecture of serviceNow:

ServiceNow's architecture is a robust and flexible cloud-based platform designed to automate and manage enterprise workflows. It's often described as a "Platform as a Service" (PaaS) and a "System of Action."

Uses :

1. **Scalability**: Supports growing user bases and increasing data volumes.
2. **Flexibility**: Allows customization and integration with other systems.
3. **Reliability**: Ensures high availability and minimal downtime.
4. **Security**: Provides robust security features to protect data.
5. **Integration**: Enables integration with other tools and systems.


ServiceNow App
App Configuration
APP
CMDB Tables
Import Sets
REST API
Third Party
DATA
Scheduled Import
Transform Map
Incident Table
Actions
Triggered Actions
Actions