REQUIREMENTANALYSIS

Solution requirement (functional & Non functional)

Team ID	LTVIP2025TMID31005
Project Name	Importing and securing Data in service now

Functional Requirements:

following are the functional requirements of the proposed solution

FR No	Functional requirements	Sub requirement
FR-1	Tables	Create table set label to employee training records insert rows training name, completion date, status and department.
FR-2	Importing data	Open ServiceNow Search for System Import Sets Select Load Data Upload file (with fields: Training Name, Completion Date, Status, Employee) Set Label to Employee Training Set Name to u_employee_training.

FR-3	Using Dot walking to access employee department information	In ServiceNow, navigate to All > System Definition> List Layouts, search for Customer Orders, use dot-walking to add the Employee Department field, select it, save changes, and the field will appear in the list view.
FR-4	Access control list (ACL)	Create ACL Define ACL for Employees Set Operation to Read.
FR-5	Roles	Create role: HR Manager Add to sys_user Assign role to Tables, Application, and Module Add HR Manager role to sys_user Now HR Manager can view employee department info in Employee Training Records list view.
FR-6	Result	Impersonate sys_user search Employee Training

		Records can view and edit fields. Impersonate another user cannot see the table.

Non functional requirements:

Following are the non function requirements of the proposed solution

NFR N0	**Non functional requirement**	**Description**
NFR-1	**Usability**	Ensures data import and security processes in ServiceNow are clear, intuitive, and easy for authorized users to manage safely.
NFR-2	**Security**	Ensure secure data import by enforcing access controls, encryption, and audit logging to protect data integrity, confidentiality, and compliance during the import process.
NFR-3	**Reliability**	Ensure reliable data import by validating files, handling errors gracefully, and

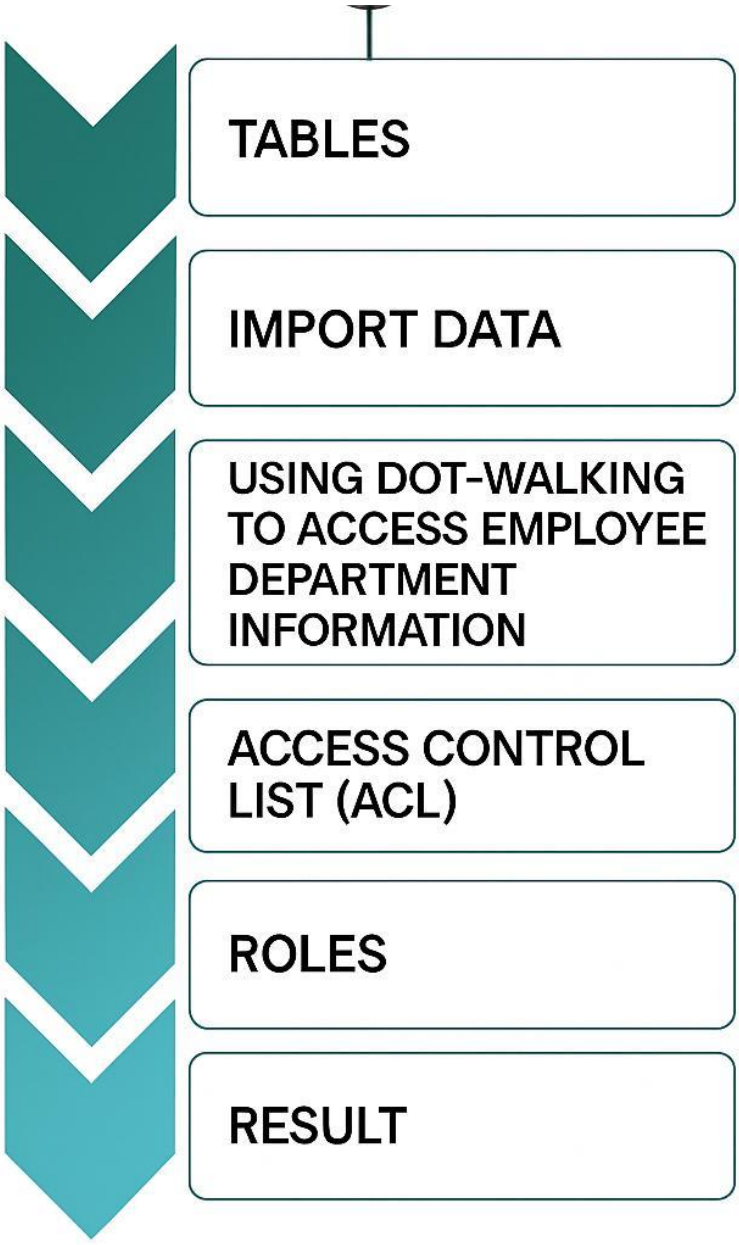
		maintaining consistent data availability throughout the process.
NFR-4	**Performance**	Ensure fast, efficient data import and secure processing in ServiceNow, minimizing delays and ensuring system responsiveness during large data operations.
NFR-5	**Availability**	Ensures that data import and security features in ServiceNow are reliably accessible, minimizing downtime and ensuring continuous, secure operations.

Data flow diagram:A Data Flow Diagram (DFD) is a simple visual tool that shows how data moves through a system. It outlines the input, processing, storage, and output of data, helping to understand and improve system workflows.

- Where data comes from (external sources)
- Where it goes (processes and storage)
- How it's transformed along the way

Uses:

- Show how data moves through a system from input communication output
- Break down complex processes into simpler, understandable components
- Enhance communication between technical teams and business stakeholders
- Aid in system design and development by mapping data processes clearly


TABLES
IMPORT DATA
USING DOT-WALKING TO ACCESS EMPLOYEE DEPARTMENT INFORMATION
ACCESS CONTROL LIST (ACL)
ROLES
RESULT

Technology Stack: The image shows how data flows from a third-party system into the ServiceNow app, gets processed through import mechanisms, and ends up in the Incident Table, where it can trigger further actions or updates.

Third Party → REST API → ServiceNow

- Data is sent from a third-party system via REST API.

REST API → Scheduled Import

API data is captured by a scheduled import job.

Scheduled Import → Import Sets

- Data is loaded into temporary import tables.

Import Sets → Transform Map

- Data is transformed to match the format of the target tables.

Transform Map → Incident Table

- Transformed data is saved as incidents in ServiceNow.

Incident Table → Triggered Actions

- Actions (like alerts, updates) are automatically triggered.

Incident Table ↔ CMDB Tables

- Incidents are linked to Configuration Items (Cis) from the CMDB.

Service now architecture