

Automating Data Import and Relationship Mapping Using Import Sets & Dot Walking

Problem Statement:

Your organization wants to regularly import a list of new employees with their details, such as Name, Email, Department, and Manager, from an external system. Once imported, when an Incident is assigned to an employee, the Incident form should automatically show the manager's email of the employee's department.

Objective:

Import employee records from an external CSV file into ServiceNow.
 Automatically map relationships between employees, departments, and managers using dot-walking.

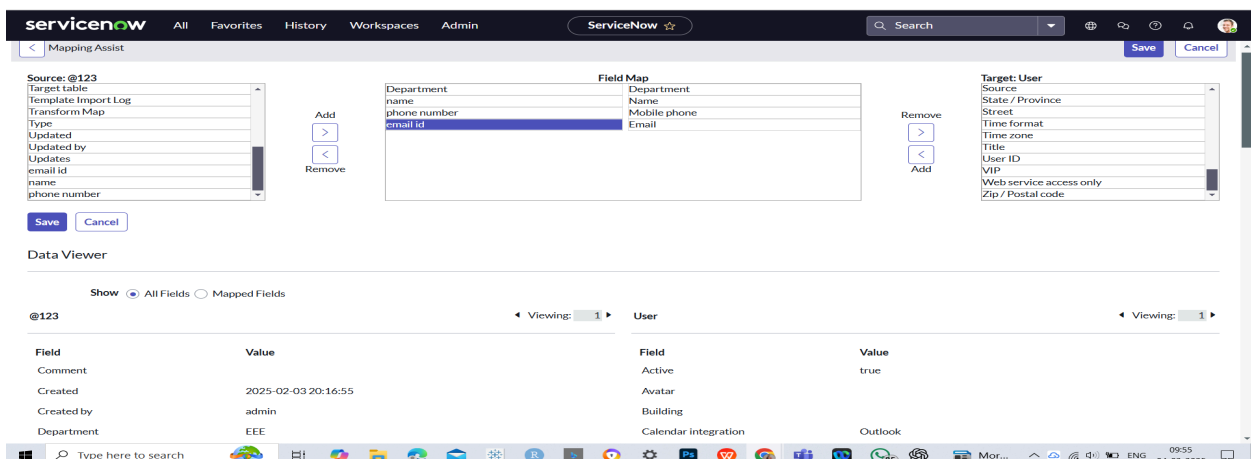
Skills: Import sets, Dot Walking

TASK INITIATION

Milestone 1 : Import data from data source

Activity 1: Create records in the Sheet

1. Open google sheet
2. Name the fields as name,email,department, manager and phone number
3. Enter some records



The screenshot shows the ServiceNow Mapping Assistant interface. On the left, the 'Source: @123' table is listed with fields: name, email id, phone number, and department. In the center, the 'Field Map' section shows the mapping: 'name' to 'Name', 'email id' to 'Email', 'phone number' to 'Mobile phone', and 'department' to 'Department'. On the right, the 'Target: User' table is listed with fields: Source, State / Province, Street, Time format, Time zone, Title, User ID, VIP, Web service access only, and Zip / Postal code. Below the mapping, the 'Data Viewer' section shows a table with columns 'Field' and 'Value'. The table contains the following data:

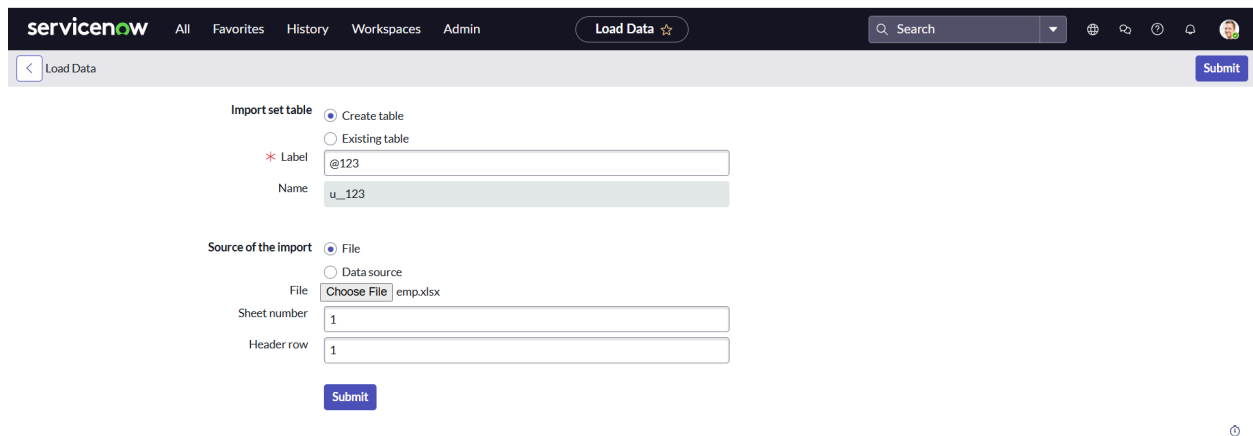
Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

4. Save the sheet as: employee data
5. Download the file as .xlsx , .csv (or) .xml file

	A	B	C	D	E	F	G
1	name	email id	phone number	Department	manager		
2	Boija	Boija@gmail.com	9123455	CSE	shiva		
3	harika	harika@gmail.com	1.13656E+11	ECE	shiva		
4	mouni	mouni@gmail.com	9877756445	Mech	shiva		
5	raji	raji@gmail.com	7354556678	EEE	shiva		
6							
7							
8							
9							

Activity 2: Import data

1. Open service now.
2. Click on All >> search for import sets
3. Select load data under system import sets
4. select create table
5. Give the the import set table name as: import employee
6. Choose the file which we created in the XL sheet.



servicenow All Favorites History Workspaces Admin Load Data

Load Data Submit

Import set table ☒ Create table ☐ Existing table

* Label @123

Name u_123

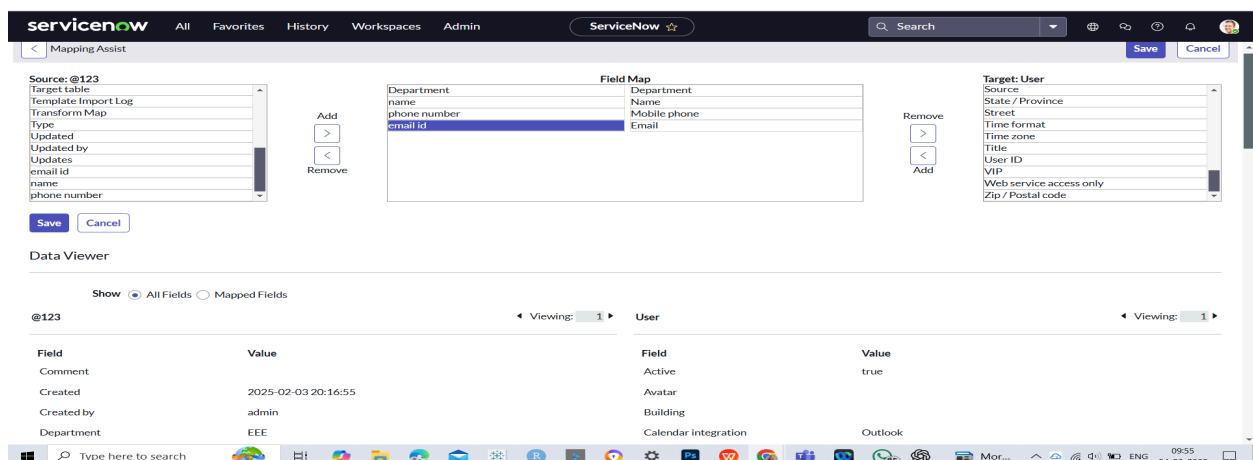
Source of the import ☒ File ☐ Data source

File Choose File emp.xlsx

Sheet number 1

Header row 1

Submit



servicenow All Favorites History Workspaces Admin ServiceNow

Mapping Assist Save Cancel

Source: @123

Target table: Department

Transform Map

Updated by

Updates

email id

name

phone number

Add

Remove

Field Map

Source	Target
name	Name
phone number	Mobile phone
email id	Email

Remove

Add

Target: User

Source

State / Province

Street

Time format

Time zone

Title

User ID

VIP

Web service access only

Zip / Postal code

Save

Cancel

Data Viewer

Show ☒ All Fields ☐ Mapped Fields

@123 Viewing: 1

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

User Viewing: 1

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	

Type here to search

09:55 04-02-2025

7. The data is imported, click on personalized list
8. Add fields to the form.

servicenow All Favorites History Workspaces Admin RRs ☆ Customize and control Google Chrome

for text Search Actions on selected rows... New

All

name	email id	phone number	Department	manager
Search	Search	Search	Search	Search
harika	harika@gmail.com	113655767888	ECE	shiva
mouni	mouni@gmail.com	9877756445	Mech	shiva
Bojja	Bojja@gmail.com	9123455	CSE	shiva
raji	raji@gmail.com	7354556678	EEE	shiva

Related Links
[Import Sets](#)
[Transform Maps](#)
[Transform History](#)
[Edit Web Service](#)

Activity 3: Create transform map

1. Open service now.
2. Click on All >> search for import set
3. Select create transform map under import sets
4. Click on new
5. Fill the following details to create a new transform map
6. Give name as: Test
7. Select source table: @123
8. Select target table: user[sys_user]
9. Save the form.

servicenow All Favorites History Workspaces Admin ServiceNow ☆

Mapping Assist Save Cancel

Source: @123

Target table: Template Import Log

Type: Transform Map

Updated by: Updates

Updated by: Updates

email id: name

phone number: phone number

Save Cancel

Field Map

Source	Target
name	Name
phone number	Mobile phone
email id	Email

Add Remove

Target: User

Source: State / Province

Street

Time format

Time zone

Title

User ID

VIP

Web service access only

Zip / Postal code

Remove Add

Data Viewer

Show All Fields Mapped Fields

@123

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

User

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	

Viewing: 1 Viewing: 1

Type here to search

servicenow All Favorites History Workspaces : Table Transform Map - New Record ☆

Search

Table Transform Map
New record

Submit

* Name: Test

* Source table: @123 [u_123]

Active: ☒

Run business rules: ☒

Enforce mandatory fields: No

Copy empty fields: ☐

Create new record on empty coalesce fields: ☐

Application: Global

Created:

* Target table: User [sys_user]

Order: 100

Run script: ☐

Submit

Related Links

[Auto Map Matching Fields](#)

[Mapping Assist](#)

Activity 4: Match the fields using mapping assist

1. Scrolled down the created transform map form
2. Click on auto matching fields
3. Then in the mapping fields some fields are matched

servicenow All Favorites History Workspaces Admin ServiceNow ☆

Mapping Assist

Save Cancel

Source: @123

Target table: Template Import Log

Transform Map

Type

Updated

Updated by

Updates

email id

name

phone number

Add

Remove

Field Map

Source	Target
Department	Department
name	Name
phone number	Mobile phone
email id	Email

Remove

Add

Target: User

Source

State / Province

Street

Time format

Time zone

Title

User ID

VIP

Web service access only

Zip / Postal code

Save Cancel

Data Viewer

Show All Fields Mapped Fields

@123

Viewing: 1

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

User

Viewing: 1

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	

Type here to search

09:55 04-02-2025

servicenow All Favorites History Workspaces Admin Import Set - ISET0010008

Search

Import Set table @123[u_123]

Short description Type: File
Format: Excel

Update Delete

Related Links
[Reprocess](#)

Import Set Runs (1) Import Set Rows (4) Import Log

Set = ISET0010008

Created	Row	State	Target record	Error	Comment	Transform Map
2025-02-03 20:16:55	0	Inserted	User: Bojja	(empty)		Test
2025-02-03 20:16:55	1	Inserted	User: harika	(empty)		Test
2025-02-03 20:16:55	2	Inserted	User: mouni	(empty)		Test
2025-02-03 20:16:55	3	Inserted	User: raji	(empty)		Test

- Using mapping assist map the manager field.
- Select the fields which you are mapping in the staging table and target table
- Select manager in source table and add
- Select manager field in target table
- Click on the save button.

Activity 5: Transform the Data

- Click on transform in the related links.
- Click on transform.
- Data's transform state is completed.

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Mapping Assist

Source: @123
Target table: Template Import Log
Transform Map
Type: Updated by
Updates: email id
name: phone number

Add
Remove

Field Map

Source	Target
Department	Department
name	Name
phone number	Mobile phone
email id	Email

Remove
Add

Target: User
Source: State / Province
Street
Time format
Time zone
Title
User ID
VIP
Web service access only
Zip / Postal code

Save Cancel

Data Viewer

Show All Fields Mapped Fields

@123

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

User

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	

Type here to search

09:55 04-02-2025

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Specify Import set and Transform map

Import set: ISET0010008 - u_123 (2025-02-04 04:16:55)

Available maps: Test - sys_user

Selected maps, run in order: Test - sys_user

Transform

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Progress

Name: Transforming: ISET0010008

State: Complete

Completion code: Success

Message: Transformation complete

Next steps...

[ISET0010008](#) Go to the import sets for this data load

[Transform history](#) Show the transform history, related errors and log

[Import log](#) View the import log

- Click on ISET0010008 under next steps
- Four rows are inserted.

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Mapping Assist

Source: @123

Target table: Department

Transform Map

Field Map

Target: User

Data Viewer

Showing: All Fields Mapped Fields

Viewing: 1

Field	Value	Field	Value
Comment		Active	true
Created	2025-02-03 20:16:55	Avatar	
Created by	admin	Building	
Department	EEE	Calendar integration	
		Outlook	

servicenow All Favorites History Workspaces Admin Import Set - ISET0010008

Search

Import Set ISET0010008

State: Processed Load completed: 2025-02-03 20:16:55

Data source: emp.xlsx (Uploaded) Load run time: 0 Seconds

Import set table: @123[u_123]

Short description: Type: File Format: Excel

Update Delete

Related Links

Reprocess

Import Set Runs (1) Import Set Rows (4) Import Log

Started Search

Set = ISET0010008

Started	State	Completed	Run time	Total	Inserts	Updates	Processed	Ignored	Skipped	Errors	Transform Map	Robust Transformer
2025-02-03 20:25:59	Complete	2025-02-03 20:25:59	0 Seconds	4	4	0	0	0	0	0	Test	(empty)

1 to 1 of 1

Milestone 2: Dot walking

Activity 1: Display department to the assigned to user

1. Open service now.
2. Click on All >> incident
3. Select create new under incidents
4. There is no field like department in the form
5. Email and manager fields are not visible

servicenow All Favorites History Workspaces Admin ServiceNow

Search

Mapping Assist

Source: @123

Target table: Template Import Log

Transform Map

Type: Updated

Updated by: Updates

Email id: name

phone number

Save Cancel

Field Map

Department	Department
name	Name
phone number	Mobile phone
email id	Email

Remove

Remove

Add

Target: User

Source: State / Province

Street

Time format

Time zone

Title

User ID

VIP

Web service access only

Zip / Postal code

Remove

Add

Data Viewer

Show All Fields Mapped Fields

@123

Viewing: 1

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

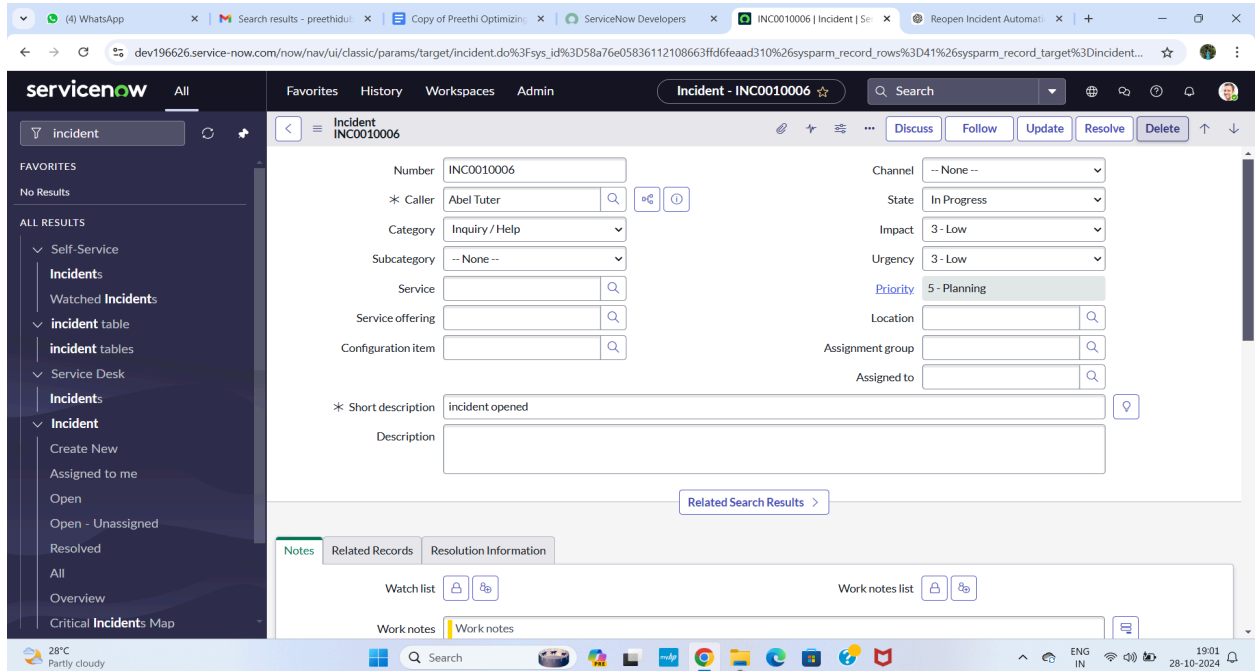
User

Viewing: 1

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	

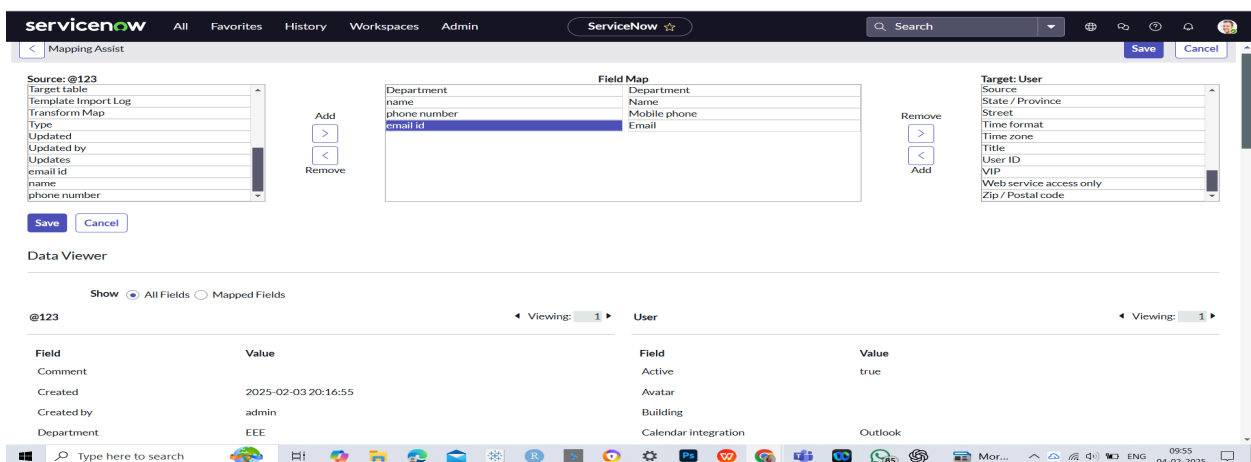
Type here to search

09:55 04-02-2025



The screenshot shows the ServiceNow Incident form for incident INC0010006. The form is divided into several sections: Favorites, History, Workspaces, and Admin. The main form area contains fields for Number (INC0010006), Channel (None), State (In Progress), Impact (3 - Low), Urgency (3 - Low), Priority (5 - Planning), Location, Assignment group, and Assigned to. The Short description field contains the text "incident opened". The Description field is empty. The form also includes a "Related Search Results" button and a "Work notes list" button. The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 19:01 on 28-10-2024.

6. By using dot walking retrieve the data without opening the record
7. Click on context menu go to configure and select form layout
8. Select assigned to.department as mentioned below
9. Click on save
10. Add another field assignment.email.
11. Also add assignment.manager field
12. Click on save.



The screenshot shows the ServiceNow Mapping Assistant interface. It is used to map fields from a source table to a target table. The source table is "@123" and the target table is "User". The mapping is as follows:

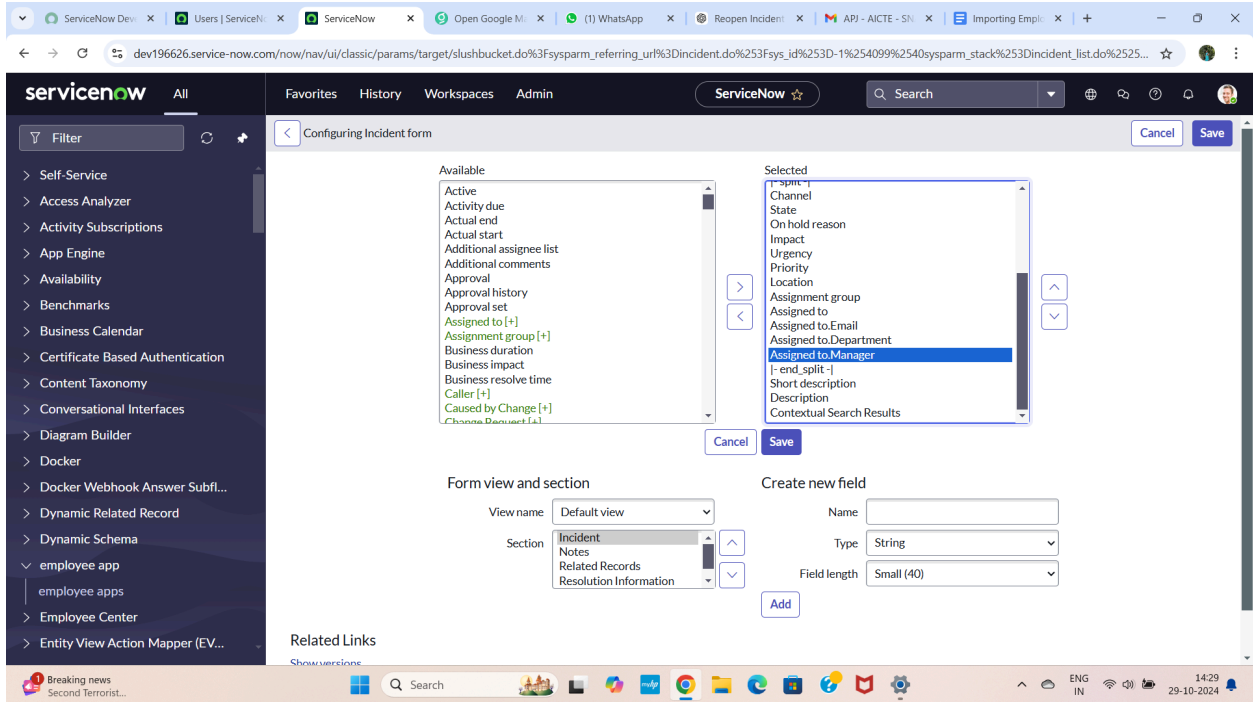
Source Field	Target Field
Department	Department
name	Name
phone number	Mobile phone
email id	Email

The interface also includes a "Data Viewer" section at the bottom, which shows the data for the source and target tables. The source table data is as follows:

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

The target table data is as follows:

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	



Available

- Active
- Activity due
- Actual end
- Actual start
- Additional assignee list
- Additional comments
- Approval
- Approval history
- Approval set
- Assigned to [+]
- Assignment group [+]
- Business duration
- Business impact
- Business resolve time
- Caller [+]
- Caused by Change [+]
- Channel
- State
- On hold reason
- Impact
- Urgency
- Priority
- Location
- Assignment group
- Assigned to
- Assigned to Email
- Assigned to Department
- Assigned to Manager
- [- end, split -]
- Short description
- Description
- Contextual Search Results

Selected

- Channel
- State
- On hold reason
- Impact
- Urgency
- Priority
- Location
- Assignment group
- Assigned to
- Assigned to Email
- Assigned to Department
- Assigned to Manager
- [- end, split -]
- Short description
- Description
- Contextual Search Results

Form view and section

View name: Default view

Section: Incident

Create new field

Name:

Type: String

Field length: Small (40)

Related Links

Breaking news
Second Terrorist...

13. Open an incident form

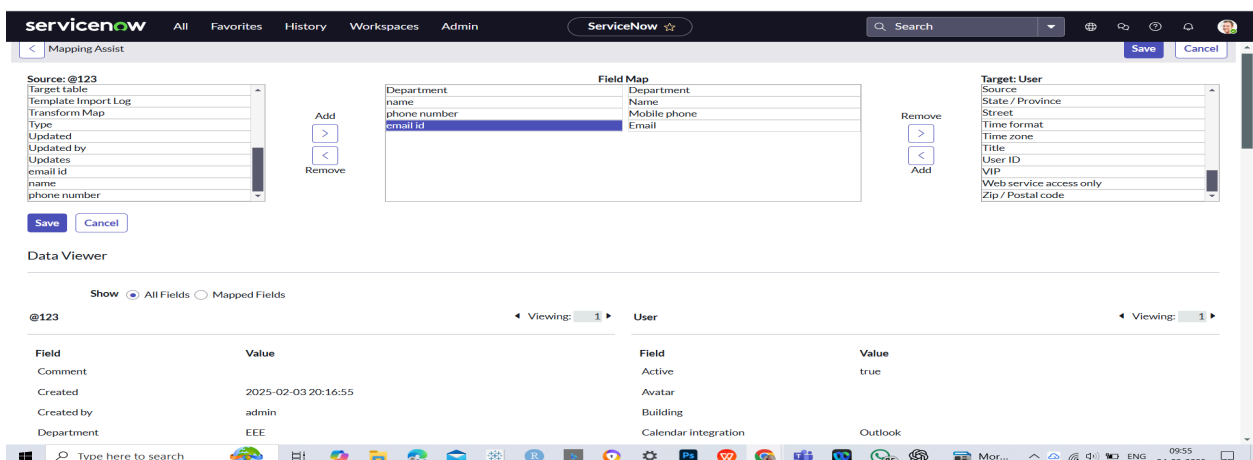
14. Fill the mandatory fields and assigned to just imported user

15. Then department and email field is automatically filled

Result:

Open the New incident form.

Insert the assigned to then automatically update the email, department and manager.



Source: @123

Target table: Template Import Log

Transform Map

Type: Updated

Updated by: Updates

Updated by: Updates

email id: name

name: phone number

Field Map

Source	Target
Department (name)	Department (Name)
Department (phone number)	Mobile phone
Department (email id)	Email

Target: User

Source: State / Province

Street

Time format

Time zone

Title

User ID

VIP

Web service access only

Zip / Postal code

Data Viewer

Show: All Fields Mapped Fields

Viewing: 1

Field	Value
Comment	
Created	2025-02-03 20:16:55
Created by	admin
Department	EEE

Viewing: 1

Field	Value
Active	true
Avatar	
Building	
Calendar integration	
Outlook	

Incident
New record

Number
INC0010092

* Caller
Abel Tuter

Email
abel.tuter@example.com

* Category
Inquiry / Help

Name
Abel Tuter

First name
Abel

Subcategory
-- None --

Configuration item

* Short description
dot walking

Description

State
New

Impact
1 - High

Urgency
2 - Medium

Priority
2 - High

Assignment group

Assigned to
mouni

Email
mouni@gmail.com

Department
Mech

Manager
Shiva

Related Search Results

Related Search
dot walking

Knowledge & Catalog (All)

Conclusion :

This project automates data imports using **Import Sets, Transform Maps, and Dot Walking** in **ServiceNow PDI**, enabling efficient data migration and relationship mapping.

Import Sets allow easy data import from external sources.

Transform Maps ensure data is correctly mapped and processed.

Dot Walking enables automatic relationship mapping between tables.

servicenow
All Favorites History Workspaces Admin
ServiceNow
Search
Mapping Assist
Save Cancel

Source: @123
Target table:
Template Import Log
Transform Map
Type
Updated
Updated by
Updates
email id
name
phone number

Add
Remove

Field Map
Department
name
phone number
email id
Department
Name
Mobile phone
Email

Remove
Add

Target: User
Source
State / Province
Street
Time format
Time zone
Title
User ID
VIP
Web service access only
Zip / Postal code

Save Cancel

Data Viewer

Show All Fields Mapped Fields

@123
Viewing: 1
User
Viewing: 1

Field	Value	Field	Value
Comment		Active	true
Created	2025-02-03 20:16:55	Avatar	
Created by	admin	Building	
Department	EEE	Calendar integration	Outlook