

1. Overview Of UI of the instance:-

In ServiceNow, the User Interface (UI) is the visual part of the platform through which users interact with the system — whether to manage incidents, view dashboards, or automate workflows.

1. Key Components of ServiceNow UI

a) Application Navigator (Left Panel)

- It helps users **find applications and modules**.
- You can **filter** using keywords.
- Example: Typing “Incident” shows all related modules like “Create New,” “All,” “Open,” etc.

b) Content Frame (Center Area)

- The main working area where **forms, lists, and dashboards** appear.
- Example: When you open an incident record, the form loads here.

c) Banner Frame (Top Bar)

- Contains:
 - **User menu** (profile, preferences, logout)
 - **Settings icon** (theme, notification settings)
 - **Global search bar**
 - **Help or support icon**

Changing Logo Of Servicenow

In ServiceNow, the **System Properties → Basic Configuration** module allows you to **customize the look, feel, and branding** of your instance — things like the company logo, colors, name, and banner.

Key Settings in Basic Configuration

Setting	Description
Company Name	Sets the organization name shown in the banner.

Banner Image	Lets you upload a custom logo or image shown at the top of the UI.
Banner Background Color	Choose or set a hex color code (e.g., #2C3E50).
Text Color	Adjusts the banner text color for readability.
Form Header Background Color	Changes the header color on forms.
List Title Background Color	Sets color for list view headers.
System Date/Time Format	Defines the default format shown in all records.
System Time Zone	Sets the default time zone for users.
Welcome Message	Message displayed to users when they log in.
Default Theme	Selects the color scheme (Light, Dark, or Custom).

Example: Customizing Branding

Suppose your company is *TechSphere Pvt. Ltd.*, and you want to:

- Add your **logo**
- Set **banner color** to blue
- Change **text color** to white

Steps:

1. Navigate to **System Properties → Basic Configuration (UI16)**
2. Upload your logo file.
3. Set banner background = **#007BFF**
4. Set text color = **#FFFFFF**
5. Click **Save** 

Now your instance will have a personalized theme and logo.

servicenow All

Favorites History Workspaces : System Configuration UI16 ☆

System Configuration

Tailor the look of the page top banner - text / logo / color
Set the timezone, date, and time formats

Page header caption: Service Management

Browser tab title: ServiceNow

System timezone for all users unless overridden in the user's record: System (Etc/UTC) Configure available time zones

Banner image for UI16:

Date format: yyyy-MM-dd

Time format: HH:mm:ss (24 hour)

Header background color: #293e40

Banner text color: #ffffff

Header divider stripe color: #5a7f71

Navigation header/footer:

All Favorites History Workspaces Admin KFC- Shared admin dashboard ☆

Welcome to Admin Home, System!

Manage, monitor, and discover all your day to day administrative actions and tools across the platform.

Track what's important to you

Shared admin dashboard ▾

Open incidents	Open request items	Probl...	Hardening compliance score
No data available. There is no data available for the selected criteria.	No data available. There is no data available for the selected criteria.	65	88%
Open P1 incidents 0	Aging incidents over 24 hrs 0	Request items over 24 hrs 0	Request items awaiting approval 0
Chan... 5	Customer Actions 2		

Application & Module

An **Application** in ServiceNow is a **collection of related modules, tables, and functionalities** that serve a specific purpose.

A **Module** is a **subsection inside an Application**.

Example:-

Application: Incident

- Create New
- Open
- Assigned to Me
- All

How to Create a Custom Application

Steps:

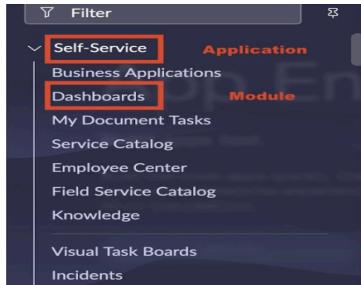
1. Navigate to: **System Definition → Application Menu**
2. Enter **Name, Scope, and Description**
3. Save it → ServiceNow automatically creates:
 - A **custom table**
 - A **menu (application)**
 - A **module**

You can then add more modules manually as needed.

How to Create a Module

Steps:

1. Go to: **System Definition → Modules**
2. Click **New**
3. Fill in:
 - **Title:** Name of the module
 - **Application:** Select the parent application
 - **Link type:** Choose what it opens (Form, List, URL, Script)
 - **Table:** Specify which table the module shows
4. Click **Submit**



Global Search:- The Global Search bar allows users to search across the entire ServiceNow instance — including records, tables, users, and knowledge articles — from one place.

Favorites:- The Favorites feature lets users bookmark frequently used modules or records for quick access.

Impersonate User:- The Impersonate User feature allows an admin to log in as another user without needing their password.

It's used to test permissions, roles, and UI visibility for that specific user.

Elevate Role:- Elevate Role allows a logged-in system administrator to temporarily gain higher privileges — specifically roles like security_admin — to perform sensitive configuration or security-related tasks.

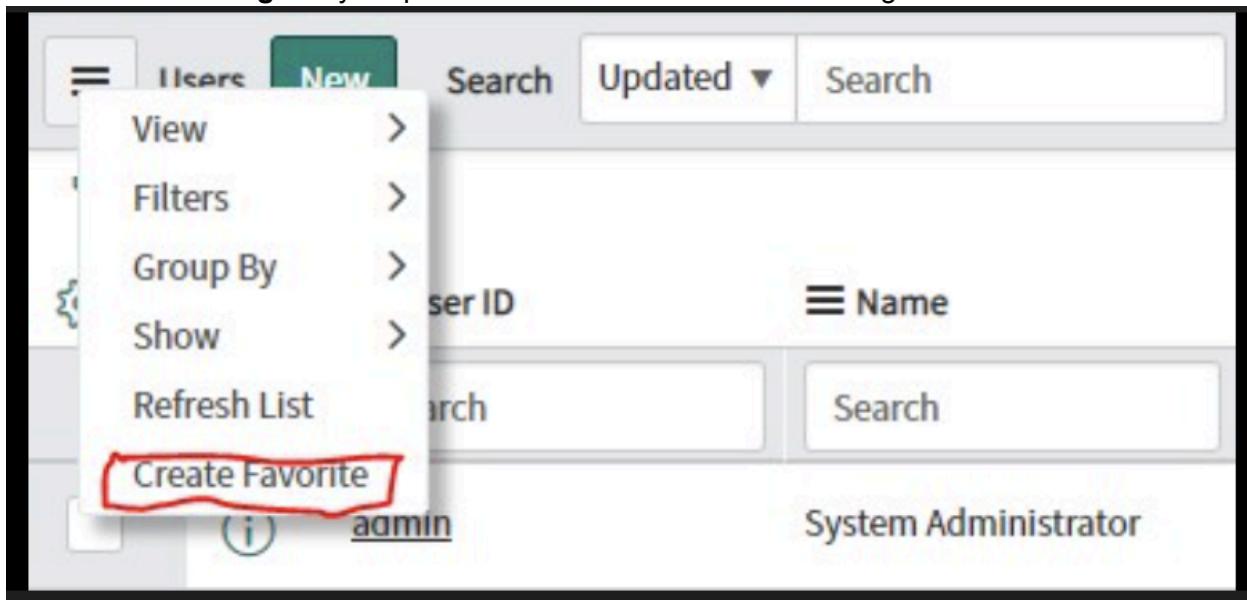
The Edge

Purpose: Personal productivity and navigation area.

What it includes:

- **Bookmarks:** Quick access to saved records or pages.
- **Tags:** View and manage tagged items (like records or documents).
- **Layouts:** Switch between different screen layouts or preferences.
- **Feeds or activity:** Sometimes shows user-specific information or tasks.

👉 Think of **The Edge** as your personal sidebar for shortcuts and organization.



User Interface Layer

Includes: Banner Frame, Application Navigator, Content Frame, The Edge, Badges, Service Portal, Agent Workspace.

1.2 Platform capabilities and services:-

These are built-in capabilities that enable customization, automation, and integration.

A. Application Development

- Build custom apps using App Engine Studio or Studio IDE.
- Use Scoped Applications to isolate custom apps from global scope.
- Includes UI Builder for building portals or workspaces visually.

Key terms:

- **Table:** Stores records (like a database table).
- **Record:** A row in a table (e.g., an incident record).
- **Field:** A column in a table (e.g., priority, state).
- **Form:** UI to display/edit a record.
- **List:** Displays multiple records.

B. Automation & Workflow

Automation capabilities help reduce manual work and ensure process consistency.

C. Integration Capabilities

Integrations enable ServiceNow to connect with external tools and data sources.

D. Reporting and Analytics

ServiceNow provides strong reporting and performance analysis tools.

Feature	Description
Reports	Create graphical or tabular reports on any table.
Dashboards / Performance Analytics (PA)	Measure KPIs, trends, and goals using widgets.
Metrics / SLAs	Track service-level targets and response times.

E. Security & Access Control

ServiceNow enforces multi-level security for users and data.

Mechanism	Description
User Authentication	Local login, LDAP, SSO, or OAuth.
Roles	Define what users can do (e.g., <code>admin</code> , <code>itil</code> , <code>approver</code>).
Groups	Logical collection of users (e.g., Incident Assignment Group).

Access Control Rules (ACLs) Define what users can read, write, or delete.

Encryption / Data Policies Protect sensitive information.

F. User Experience (UX)

ServiceNow provides multiple interfaces for end-users and agents.

Interface	Purpose
Service Portal	User-friendly front-end for self-service.
Agent Workspace	Unified workspace for IT agents to handle tasks efficiently.

Platform Services

These are ready-to-use services and modules built on the Now Platform.

Category	Examples	Description
IT Service Management (ITSM)	Incident, Problem, Change, Request	Core IT service modules for issue resolution and change control.
IT Operations Management (ITOM)	Discovery, Event Mgmt, CMDB	Manages IT infrastructure, events, and dependencies.

IT Asset Management (ITAM)	Hardware, Software Assets	Tracks asset lifecycle and usage.
IT Business Management (ITBM)	Project, Portfolio, Demand	Aligns IT work with business strategy.
HR Service Delivery (HRSD)	Case Mgmt, Onboarding	Automates HR workflows for employees.
Security Operations (SecOps)	Incident Response, Threat Intel	Manages and resolves security incidents.
Customer Service Management (CSM)	Cases, Accounts, SLAs	Enhances customer support experiences.
Governance, Risk & Compliance (GRC)	Policy Mgmt, Risk Analysis	

1.3. The ServiceNow Instance:-

A ServiceNow instance is your own personal environment (a unique URL on the ServiceNow cloud) where all your configurations, data, and applications exist.

Each customer, developer, or organization gets a separate instance — so your data and customizations are fully isolated from others.

 **Example:**

<https://dev12345.service-now.com>

This URL represents one instance.

◆ Types of Instances

Type	Purpose	⋮
Production Instance	Used for live business operations (real users, real data).	
Development Instance	Used by developers to build and test new apps or configurations.	
Test (QA) Instance	Used to test new changes before moving to production.	
Sub-Production Instances	Non-production environments used for development, testing, or training.	

Instance Architecture:-

Each instance includes:

- **Application layer** – Runs business logic and workflows.
- **Database layer** – Stores all data in tables.
- **UI layer** – Interface users interact with (web, mobile, portal).
- **Integration layer** – Connects ServiceNow with other systems.

Each instance runs **independently** with its own database, ensuring:

- Data security
- Performance stability
- Customization flexibility

Components of an Instance:-

1. **UI (User Interface)** – Navigation, forms, lists, dashboards.
2. **Application Navigator** – Access apps, modules, and records.
3. **Banner Frame** – Top bar with profile, search, and settings.
4. **Content Frame** – Displays the main page content.
5. **System Menu** – For settings, help, and user preferences.

1.4.Next Experience Unified Navigation

◆ What is the Next Experience?

The **Next Experience** (introduced in the *San Diego release*) is the **modern, unified user interface** of ServiceNow that replaces the classic UI16 look.

It provides:

- **Modern design**
- **Unified navigation**
- **Personalized workspaces**
- **Consistent experience** across web and mobile

◆ Unified Navigation Overview

Unified Navigation means that all apps, modules, workspaces, and dashboards are accessible from a **single navigation pane** on the **left side** of the screen — instead of multiple separate menus.

Instance Types	
<input type="checkbox"/> JavaScript	...
Type	Purpose
Personal Developer Instance (PDI)	Sandbox for learning and experimentation.
Development	Used by admins/developers to configure and test.
Test / QA	For regression and user acceptance testing.
Production	Live instance used by end users.
Sub-production (UAT, Staging)	Optional environments for release readiness.

Instance Architecture	
<input type="checkbox"/> JavaScript	...
Layer	Description
UI Layer	Next Experience (Polaris UI), forms, lists, portals.
Application Layer	Tables, Business Rules, Flows, Script Includes, APIs.
Database Layer	MySQL-based multi-tenant database storing all records.
Integration Layer	REST/SOAP APIs, MID Server, IntegrationHub spokes.
Security Layer	Roles, ACLs, Encryption, Instance Security Controls.

Front (Question) Back (Answer)

What is a ServiceNow instance? An independent, cloud-hosted environment on the Now Platform with its own database, configurations, and users.

What separates ServiceNow environments? Instances are isolated into Dev, Test, Prod, and Personal Developer Instance tiers.

What is the URL format for ServiceNow instance?

<https://instance-name.service-now.com>

What are the three main layers of ServiceNow architecture? UI layer, Application layer, Database layer.

Where are all configurations stored in ServiceNow? In tables stored within the instances MySQL database.

Where are users stored in ServiceNow? In the sys_user table.

What defines what actions a user can perform? Roles.

How is access determined for a user? By the sum of all roles directly or indirectly assigned through groups.

Which role has full access privileges? The admin role.

How do you test access as another user? Using the Impersonate User feature.

What allows temporary role assignment? Delegation Rule.

What defines read/write/create/delete permissions? Access Control Lists (ACLs).

What are the three components of ACL evaluation? Role + Condition + Script must all return true.

Which ACL applies if no specific one exists? Table-level ACLs apply to all fields unless overridden.

Where are ACL scripts executed? Server-side.

What plugin helps analyze ACL layers? Security Manager plugin.

What is every record stored in? A table.

What is an extended table? A table that inherits fields from a parent table, e.g., Incident extends Task.

How do you visualize table relationships? Using Schema Map.

What modifies inherited field properties? Dictionary Overrides.

Where can you manage all tables? System Definition â†’ Tables.

What is Form Designer used for? Drag-and-drop form layout configuration.

What defines visible columns in a list? List Layout.

What is the difference between Personalize and System UI changes? Personalize affects only the user; System UI affects all users.

What shows related child records? Related lists.

What automates actions on record changes? Business Rules.

What are Business Rule execution orders? Before, After, Async, Display.

What defines reusable server-side logic? Script Includes.

What functions are used for debugging on server-side? `gs.log()` and `gs.addInfoMessage()`.

When should you avoid heavy logic in Business Rules? In After rules; use Async or Flow instead.

When do Client Scripts execute? On browser events: `onLoad`, `onChange`, `onSubmit`, `onCellEdit`.

What controls field visibility or mandatory states without code? UI Policies.

What adds buttons or context menus? UI Actions.

What client API manipulates field properties? `g_form`.

How to call a Script Include from Client Script? Using `GlideAjax`.

What replaces legacy Workflow Editor? Flow Designer.

What are three Flow Designer triggers? Record, Schedule, Manual.

What components make a Flow? Triggers + Actions + Data Pills.

What extends Flow Designer with integrations? IntegrationHub.

What types of notifications exist? Email, Push, Custom.

What defines when notifications trigger? Conditions in the notification record.

What uses variables and scripts to customize emails? Email templates.

What loads external data into ServiceNow? Import Sets and Transform Maps.

What tracks configuration changes for migration? Update Sets.

What should you always do before loading data? Preview and test the Transform Map.

Where do you view runtime logs? System Logs â†’ All.

Where do you check instance performance? System Diagnostics â†’ Stats.

What feature identifies instance vulnerabilities? Instance Security Center.

What principle should guide role assignment? Least Privilege Principle: assign only required roles.

TOPIC 2:-

- **Instance Configuration:-**

What is a baseline implementation?

A baseline implementation is a set of installed applications on a ServiceNow instance, before any configuration or customization has been done.

What is an instance?

An instance is a copy of a ServiceNow environment that is specific to a customer. There are Prod and Non-prod environments:

Production:

Prod: where employees do their work and support their organizations.

Non-Production:

- Development: where personas such as admins and implementers configure and build applications.

- Test: where personas such as implementers test their changes before moving into production.

Important: Personal Developer Instance (PDI) is an independent instance where developers and others may install, configure, develop, and learn.

Configuration and customization

Configuration

Most of what administrators do in a ServiceNow instance is configuration. This primarily consists of things that can be done without code.

Examples:

Update the list of categories on a form

Add baseline fields to form

Configure list views

Create a service catalog and catalog items

Extend a table for a new hardware class

Customization

Customization is done when a customer requires additional functionality that does not exist in the platform, and they want to add features.

Examples:

Enhance a portal widget to display lists with complex access controls.

Add a table for special billing requirements.

Application and Plugins :-

In ServiceNow, applications and plugins are modular packages that add functionality to your instance.

A **plugin** is a small piece of functionality that can be activated to extend core capabilities.

You can install applications from:

1. ServiceNow Store (store.servicenow.com)
2. Application Repository (for custom or scoped apps)

Navigation Path	Opens What	Backend Table	Purpose
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①	System Applications → All Available Applications → All	 Application Manager	<code>sys_a_pp</code>	Manage Applications (Scoped apps)
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②	All → Admin Center → Application Manager	 Same Application Manager, but via new Next Experience (Polaris UI)	<code>sys_a_pp</code>	Manage Applications (Same as above, modern view)
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Personalizing the Instance:-

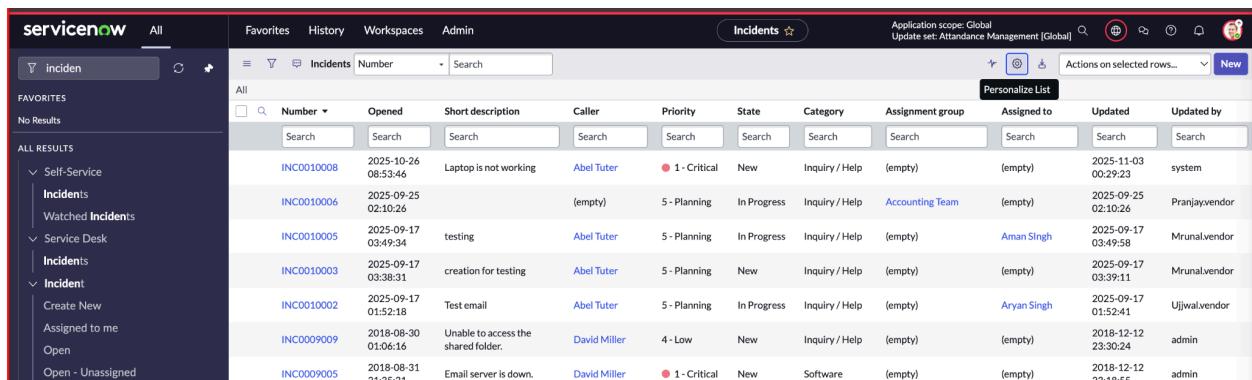
Personalization (User-level)

Changes done by *individual users* for their own experience:

- Adjust list columns
- Change form layout (with Form Designer or Configure → Form Layout)
- Create filters, favorites, or bookmarks
- Change theme or language

Example:

user changes the “Incident” list to show *Priority* and *Assigned To* first → affects only you.



The screenshot shows the ServiceNow interface for the 'Incidents' list. On the left, there's a sidebar with navigation links like 'Self-Service', 'Incidents', 'Watched Incidents', 'Service Desk', 'Incidents', 'Incident', 'Create New', 'Assigned to me', 'Open', and 'Open - Unassigned'. The main area has a header with tabs for 'Favorites', 'History', 'Workspaces', and 'Admin', and a search bar. Below the header is a toolbar with icons for search, refresh, and actions. The main content area displays a table of incidents with columns: Number, Opened, Short description, Caller, Priority, State, Category, Assignment group, Assigned to, Updated, and Updated by. The 'Priority' column is the second column from the left, and the 'Assigned to' column is the eighth column. The table shows several incident entries with details like date, description, assignee, and status.

Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated	Updated by
INC0010008	2025-10-26 08:53:46	Laptop is not working	Abel Tuter	● 1 - Critical	New	Inquiry / Help	(empty)	(empty)	2025-11-03 00:29:23	system
INC0010006	2025-09-25 02:10:26		(empty)	5 - Planning	In Progress	Inquiry / Help	Accounting Team	(empty)	2025-09-25 02:10:26	Pranjay.vendor
INC0010005	2025-09-17 03:49:34	testing	Abel Tuter	5 - Planning	In Progress	Inquiry / Help	(empty)	Aman Singh	2025-09-17 03:49:58	Mrunal.vendor
INC0010003	2025-09-17 03:38:31	creation for testing	Abel Tuter	5 - Planning	New	Inquiry / Help	(empty)	(empty)	2025-09-17 03:39:11	Mrunal.vendor
INC0010002	2025-09-17 01:52:18	Test email	Abel Tuter	5 - Planning	In Progress	Inquiry / Help	(empty)	Aryan Singh	2025-09-17 01:52:41	Ujjwal.vendor
INC0009009	2018-08-30 01:06:16	Unable to access the shared folder.	David Miller	4 - Low	New	Inquiry / Help	(empty)	(empty)	2018-12-12 23:30:24	admin
INC0009005	2018-08-31 21:36:21	Email server is down.	David Miller	● 1 - Critical	New	Software	(empty)	(empty)	2018-12-12 23:38:55	admin

- Personalization should be used for temporary situations.
- Global changes will not be reflected in a personalized list.

Customization (System-level)

Changes that affect **everyone**:

- Adding new fields or tables
- Creating new UI Actions (buttons)
- Adding business rules or client scripts
- Custom workflows or Flow Designer flows
- Changing logos, colors, or themes globally
- Adding custom applications

Example:

Admin adds a new field “Root Cause” to the *Incident* table → visible to all users.

Question: What are some of the ways to interact with the ServiceNow Platform?

- Workspaces
- Service Catalog
- Dashboards
- Lists
- Forms
- Knowledge Bases

Common User Interfaces in the Platform:-

ServiceNow provides **multiple user interfaces (UIs)** for different roles and use cases.

Interface	Description	Example
UI16 (Classic)	The main web interface used by most users/admins	Used for ITSM apps like Incident, Change
Next Experience (Polaris)	Modern, responsive UI with unified navigation and Workspaces	Used in newer releases (Tokyo+)
Service Portal	User-friendly portal for end-users to submit requests, view knowledge articles	Self-Service → Service Catalog
Now Mobile App	Mobile UI for employees and agents	Submit incidents from mobile
Agent Workspace	Streamlined UI for agents to handle records efficiently	Incident or HR Case Workspace
UI Builder	Low-code tool to design Workspaces or pages for experiences	Build your own workspace for custom apps

User , Groups and Role:-

Persona types in the Platform:-(VERY IMPORTANT)

i) **System Administrator**:- The system administrator provides access to all platform features, applications, functions, and data.

ii) Specialized Administrator

A Specialized Administrator is someone who manages one specific function, module, or application — not the entire system.

They are like “mini-admins” for specific areas.

iii) Process User

These are users who execute IT service management (ITSM) processes — like handling incidents, changes, and problems.

iv) Approver

An Approver is a user who receives approval requests — usually when a record (like a change or request) requires authorization.

v) Requester (ESS User — Employee Self-Service): These are end users or employees who use the platform for self-service.

They do not have any roles assigned, but they can use public or self-service portals.

Persona types in the Platform



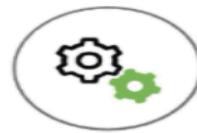
System Administrator

The system administrator provides access to all platform features, applications, functions, and data.



Specialized Administrator

Users with specialized administrator roles may manage specific functions or applications, including: Assignment Rules, Knowledge Base, Human Resources, Reports, and Web Services.



Process User

Users with the process user role may fulfill Information Technology Infrastructure Library (ITIL) activities associated with the ITIL workflow, including incident, change management, and much more!



Approver

The approver can perform all requester actions and allows users to view or modify approval records directed to them.



Requester

Also known as Employee Self Service (ESS) users, these users do not have roles but can submit and manage their own requests, access public pages, etc.

USER:-

A **User** represents an individual who can **log in** to the ServiceNow instance.

- Stored in the **sys_user** table.

 **Each user record includes:**

Field	Meaning
User ID	Login name
Name	Full name
Email	Email address
Department / Company	Organization info
Manager	Reporting manager
Roles	Roles assigned directly
Groups	Groups the user belongs to
Active	True/False (if user can log in)

Groups:-

A **Group** is a **collection of users** who share similar responsibilities or functions.

- Each group is a record in the **sys_user_group** table.

Purpose:

- Assign tasks or approvals to multiple users at once
- Simplify role assignment — assign role to group instead of every user

Roles:-

A **Role** is a **set of permissions** that define what a user can access or do in the platform.

- Each role is a record in the **sys_user_role** table.

Roles control access to:

- **Tables and fields**
- **Modules and applications**
- **Actions (create, read, update, delete)**

Types of Roles:

Type	Description
Base Roles	Basic access like <code>itil</code>, <code>admin</code>
Elevated Roles	Temporary roles for special tasks like <code>security_admin</code>
Custom Roles	Created for specific app (e.g., <code>leave.manager</code>)

Popular Roles

- `admin`
- `security_admin`
- `itil`
- `impersonator`
- `knowledge_admin`
- `catalog_admin`
- `asset`

Examples of roles:-

Role	Description
<code>admin</code>	Full access to all system features
<code>itil</code>	Access to ITSM processes (incidents, changes, problems)
<code>catalog_admin</code>	Manage service catalog items
<code>report_admin</code>	Create and share reports
<code>knowledge_admin</code>	Manage knowledge base

When attempting to modify user roles in ServiceNow, what must be done before deleting a role assigned to a group?

- Remove the role from the user record directly
 - Delete the group record entirely
 - Remove the user from the group record
 - Change the user's role to a different one

Which role is included within the catalog_admin role that allows for the management of user criteria in ServiceNow?

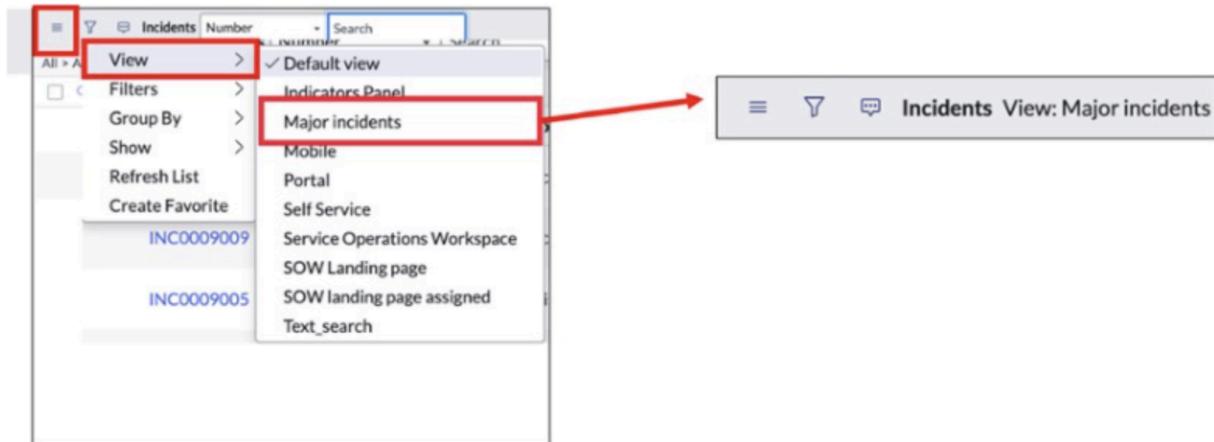
- service_catalog_admin
- user_criteria_admin
- requester_admin
- workflow_admin

Configuring Applications for Collaboration:-

List:- A list displays a set of records from a table within the content frame.

Number	Opened	Short description	Caller	Priority	State	Category	Action
INC0009009	2018-08-30 08:06:54	Unable to access the shared folder	David Miller	4 - Low	New	Inquiry / Help	(empty)
INC0009005	2018-08-30 08:04:41	Defect tracking tool is down.	David Miller	1 - Critical	New	Software	(empty)
INC0009004	2018-09-01 13:13:30	Defect tracking tool is down.	David Miller	3 - Moderate	Closed	Software	(empty)
INC0009003	2018-08-30 09:17:32	Cannot sign into the company portal app	David Miller	3 - Moderate	Closed	Inquiry / Help	(empty)
INC0009002	2018-09-16 12:49:23	My computer is not detecting the headphone device	David Miller	3 - Moderate	Closed	Inquiry / Help	(empty)

View:- Views provide specific fields or columns to support different work activities.



Context menus in a list:- Context menus provide different levels of controls for a given list view:

1. List Controls menu.
2. Column Options menu.
3. List Fields (Right-click) Context Menu.

The screenshot illustrates three levels of context menus:

- 1. List Controls menu:** A context menu is open at the top left of the list view, containing options like 'View', 'Filters', 'Group By', etc.
- 2. Column Options menu:** A context menu is open over the 'Author' column header, containing options like 'Sort (a to z)', 'Group By Author', 'Bar Chart', etc.
- 3. List Fields Context Menu:** A context menu is open over a row in the list, containing options like 'Show Matching', 'Filter Out', 'Copy URL to Clipboard', etc. A callout box with the text 'Right-click in a row's cell to open the List Fields Context Menu' points to this menu.

Adding new fields to a list

List layout:

Select Configure > List Layout.

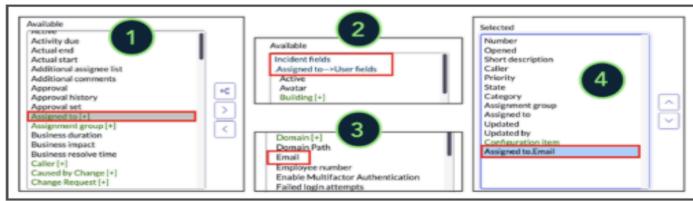
To add a new field, complete the information in the Create new field section of the List Collector.

Select Add.

Dot-Walking

Dot-Walking gathers information from a series of tables through reference fields.

- 1 Select the **reference field** you will dot-walk through
- 2 Select the **Expand selected reference field** icon
- 3 Select the field that holds the value to be referenced
- 4 Select the **Add Item** icon (>)



Filters:- A filter is a set of conditions applied to a table list to isolate a subset of the data. Three components that make up a filter condition include:

- 1 Field
- 2 Operator
- 3 Value

Select the show/hide filter icon to add, remove, or edit **filter conditions** and apply them.

The screenshot shows a filter configuration interface with a header bar for 'Knowledge' and 'Author' with a search input. Below is a toolbar with 'Run', 'Save...', 'AND', 'OR', 'Add Sort', and a filter icon. The main area displays filter conditions under the heading 'All of these conditions must be met'. There are three conditions shown: 1. Category(category) is 'Tips and Tricks'. 2. Author is 'Ron Kettering'. 3. Active is 'true'. Each condition has an 'AND' button to its right. The first condition is highlighted with a red box and a red dot, indicating it is currently selected for editing.

Filter operators will change depending on field data type.

Example field operators:

Text value: is, is not, contains, is one of, starts with, ends with

Numeric: is, is not, greater than, less than, greater than or is, less than or is

List Editor:-

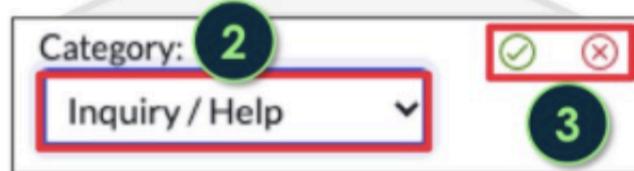
The **List Editor** allows users to **edit records directly from the list view** without opening each record's form.

Purpose of List Editor

The **List Editor** improves productivity by allowing:

- Inline edits of field values.
- Quick changes without opening full forms.

Number	Priority	State	Caller	Category	Short description
INC0000023	5 - Planning	New	Ted Kep	Inquiry / Help	Infinity showing an error - employee testing
INC0000042	5 - Planning	New	Megan Burke	Inquiry / Help	password reset request
INC0000061	5 - Planning	New	Alissa Mountjoy	Network	Infinity holographic settings page will not display



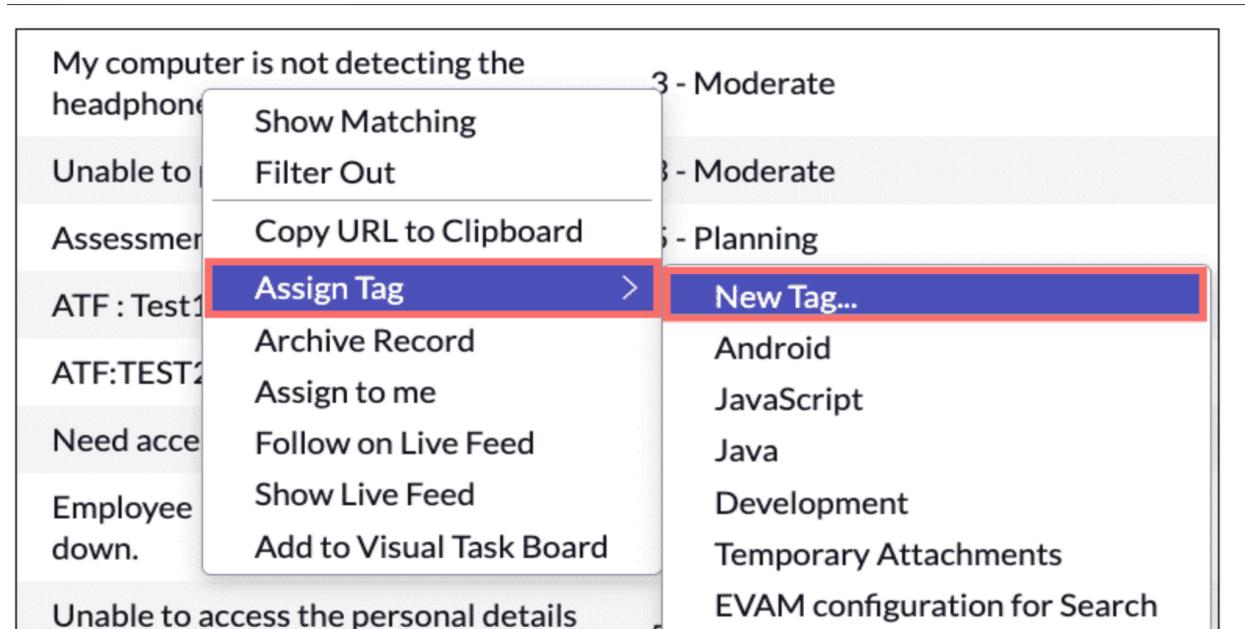
Selecting the cancel icon or pressing the escape (**esc**) key retains the original value

Tags:-

A Tag in ServiceNow is a label or keyword that users can attach to records (like incidents, problems, requests, etc.) to make them easier to find, group, and organize.

Example:

You can tag some Incident records with #Urgent, #VIPUser, or #NetworkIssue to quickly filter or find them later.



Purpose of Tags

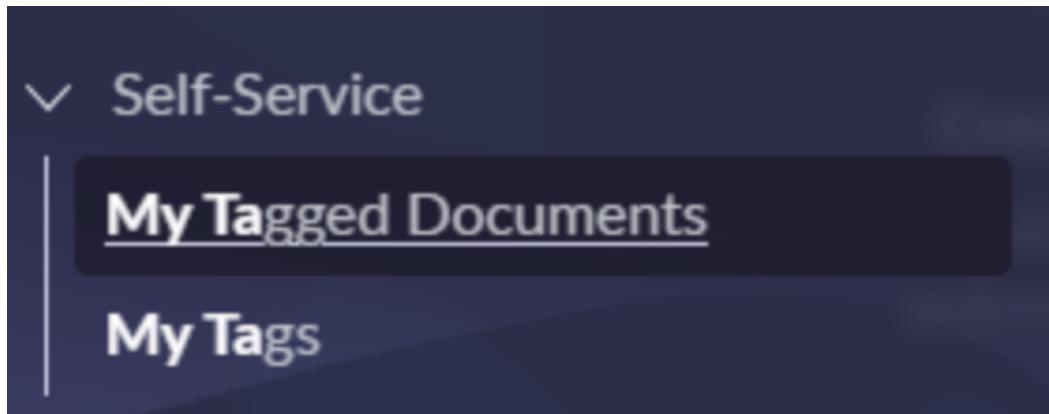
- **Organize** related records across different tables.
- **Search** for records faster using tag filters.
- **Collaborate** — users can share tags to help teams find important records easily.
- **Bookmark** or mark records for follow-up.

Use the Viewable by field to control how it is shared:-

From the list view, right-click the Record Context Menu.

From a form view, click More Options at the top of the form.

- **Edit personal tags by using the My Tags module.**
- **View tagged records by using the My Tagged Documents modules.**



Tables:-

Tables are a data structure or database component, which contain records (e.g., User table contains individual User records).

Records:-

Records are the data stored in tables, which contain fields (e.g., User records contain fields like Department).

Fields:-

Fields are individual pieces of data within a record (Examples, First Name, Last Name, Department).

System Dictionary:-

The System Dictionary contains the definition for every field from all tables in the ServiceNow instance.

- Navigate to All > System Definition > Dictionary to access the system dictionary to modify table and field attributes.
- Navigate to All > System Definitions > Tables or All > System Definitions > Tables & Columns to review or create new tables.

Form:-

A Form in ServiceNow is the interface that displays and allows interaction with a single record from a database table.

The screenshot displays a ServiceNow incident record (INC0009003) with several sections highlighted:

- Fields**: The top section containing basic information like Number, Caller, Category, Subcategory, Service, Configuration item, Short description, and Description.
- Sections**: A summary section showing Activities (1), System Administrator, Incident state (Cloud), Priority (Medium), Resolution code (None), and Resolution notes (Reinstalled the app).
- Formatter**: A section showing field changes: 2018-08-30 09:10:00.
- UI Actions**: Buttons for Update, Delete, and Related Links (Add to Update Set, Create Special Handling Notes, Route SLAs).
- Related Lists**: A table for Task SLAs with columns: SLA definition, Type, Target, Stage, Business time left, Business elapsed time, Business elapsed percentage, Start time, and Stop time. It shows "No records to display".

Form Anatomy (Structure of a Form):-

A form in ServiceNow is divided into **different parts** (sections), each with its own purpose.

Here's the complete breakdown:-

Form Header

The top section of the form that provides **quick summary information** about the record.

Includes:

- Record Number (e.g., INC0001234)
- Short Description or Title
- Icons for Attachments (clip icon), Tags (tag icon), and Activity Stream (chat icon)
- Reference Fields (like Assigned To, Requested For)

Purpose:

Helps users identify which record they are viewing or editing.

Form Context Menu (≡):-

Also known as the **Hamburger Menu**, found in the **top-left corner** of the form.

Contains options like:

- Save / Update / Delete record
- History → List (return to list view)
- Configure → Form Layout / Form Design
- Show XML (view XML data)
- Copy sys_id
- Personalize → Form (add or remove fields)



Used mainly by admins and developers to **navigate**, **configure**, or **customize** forms.

Form Buttons (UI Actions):-

These are **action buttons** shown on the top of the form (usually right side).

Common Buttons:

- **Save** → Save record without leaving
- **Update** → Save and go back to list
- **Submit** → Create new record
- **Insert** → Create duplicate
- **Delete** → Remove record
- **Custom Actions** → (e.g., *Resolve Incident, Approve Request*)



Allow users to **perform record actions** quickly.
(Implemented using **UI Actions**.)

Form Body (Main Content Area):-

The central part of the form where the **main fields** are displayed.

It consists of:

1. **Fields**
2. **Tabs / Sections**
3. **Activity Stream**

Let's break them down

a. Fields

Each field on a form corresponds to a **column in the database**.

Types of fields:

- String (text)
- Choice (dropdown)
- Reference (link to another table)
- Date/Time
- Checkbox, URL, etc.

Example:

Short Description → “Email not working”

Priority → “High”

Assigned To → “John Smith”

Purpose:

Used to enter or view data related to the record.

b. Tabs / Form Sections:-

Large forms are divided into **sections** or **tabs** to organize data better.

Example Tabs in Incident Form:

- Incident Details (Category, Impact, Urgency)
- Notes (Work Notes, Comments)
- Resolution Information
- Related Records

Purpose:

Improves **usability** and **readability** by grouping related fields.

c. Activity Stream:-

A dynamic area (usually at the bottom or right side) that shows:

- Work Notes
- Comments
- System updates
- Changes made to fields



Purpose:

Gives a **timeline view** of everything that happened with the record.

Related Lists:-

Appear **below the form body**.

They display **records related** to the current record.



Example:

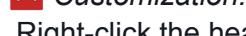
In an *Incident Form*, related lists can include:

- **Attachments** (files added)
- **Tasks** (child tasks)
- **Approvals**
- **Problem Records**
- **SLAs**



Purpose:

Show relationships between different records (e.g., one incident linked to many tasks).



Customization:

Right-click the header → Configure → Related Lists

You can choose which related lists to show or hide.

Form Footer (Optional):-

Appears at the **bottom** of some forms.

It can contain additional info, quick actions, or system messages.



Purpose:

Less common — used for extra UI actions or summary info.

Field types

1. Reference - Query that displays records from another table.
2. Date and Time - Populated with the day and time of the selected date.
3. String-Freely populated using letters, numbers, and special characters.
4. Choice - Drop-down menu with multiple values.
5. True or False - Boolean field that appears as a checkbox.

Configuration:-

Form Configuration in ServiceNow means customizing the structure, behavior, and appearance of a form.

Types of Form Configuration Options

There are **several ways** to configure a form in ServiceNow depending on what you want to achieve.

Form Layout:-

Allows you to **add, remove, or reorder fields and sections** on a form.

Navigation:

Right-click the form header → Configure → Form Layout

Key features:

- Move fields between *Available* and *Selected* lists.
- Add new **Sections** to group fields.
- Reorder fields to control visual arrangement.

Example:

If you want to add “Resolution Code” to the Incident Form →

Go to Form Layout → move *Resolution Code* field to the *Selected* list → Save.

💡 Use it when:

You need to change the **field structure** of a form.

Form Design:-

Definition:

A **drag-and-drop visual designer** for form layout customization.

Navigation:

Right-click Header → Configure → Form Design

Features:

- Graphical interface (no need to scroll through field lists).
- Create new **sections** or **tabs** visually.
- Rearrange fields by dragging them.
- View preview in real-time.

Example:

You can drag “Category” and “Subcategory” under a new tab called *Incident Details*.

Use it when:

You want a **visual, intuitive** way to design forms instead of the classic layout.

Related Lists Configuration:-

Controls what **related tables or records** appear at the bottom of a form.

Navigation:

Right-click Header → Configure → Related Lists

Features:

- Add or remove related lists (like *Attachments, Approvals, Tasks*).
- Reorder related lists.

Example:

You can remove *Change Requests* related list from the Incident Form if not needed.

Formatter:-

A formatter is an element used to display information that is not a field in the record.

Some Formatters included in the base platform are:

Activity

Process

Parent breadcrumbs

Approval summarizer

CI relations

Templates:-

Templates allow form fields to be populated automatically, simplifying the process of generating new records.

Example:

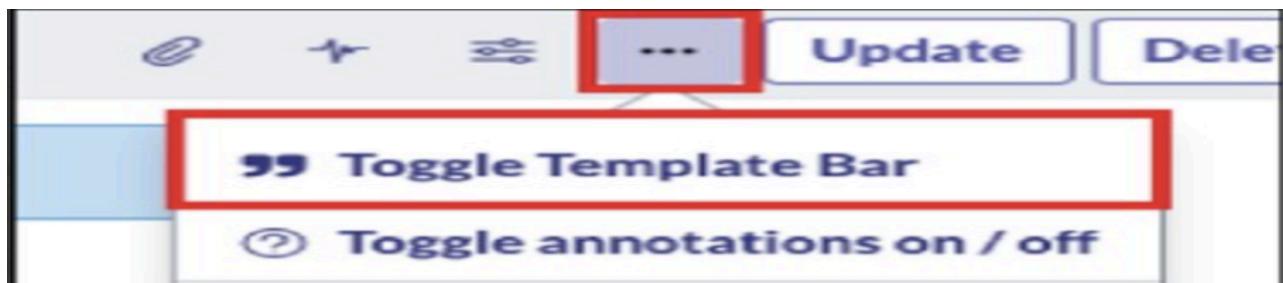
You're an IT Support Agent handling incidents.

You often create incidents for email issues, and every time you set:

Field	Value
Category	Email
Subcategory	Outage
Assignment Group	Network Support
Priority	2 - High

Instead of filling these every time, you can create a **Form Template** called *Email Issue Template*.

Next time, you just apply that template, and all these fields are filled automatically!



Technical Table References

Item	Table
Templates	sys_template
Template Fields	sys_template_field

Task Management:-

Task Management in ServiceNow is the process of assigning, tracking, and resolving tasks using tables that extend the core Task [task] table.

Every task-based process in ServiceNow (like *Incident*, *Problem*, *Change*, *Request*) is built on this Task table.

Key Task Table Concepts

Term	Description
Task Table	The parent table for all task-based records
Child Tables	Incident, Problem, Change, Request, etc. — all extend Task
Assignment Group / Assigned To	Who is responsible for the task
State	Indicates progress (New, In Progress, On Hold, Closed)
Priority, Impact, Urgency	Determine importance and response time
Work Notes / Additional Comments	Communication and documentation fields

Visual Task Boards (VTBs):-Visual Task Boards are Kanban-style boards in ServiceNow used to visualize and manage tasks.

Types of VTBs

Type	Description	Example
Freeform Board	Created manually (not tied to a table)	Personal to-do list
Guided Board	Based on a <i>choice field</i> (like State)	Incidents grouped by State
Flexible Board	Based on <i>any field</i> (like Assignment Group)	Tasks grouped by team

Visualizations, Dashboards, and Platform Analytics:-Visualizations, Dashboards, and Platform Analytics in ServiceNow are tools to analyze and display data from records visually — using charts, KPIs, and reports.

Notification:-

Notifications in ServiceNow are automated messages sent to users to inform them about record changes, approvals, or actions.

A notification is a tool for alerting users when events that concern them have occurred through the following methods:

Email

SMS

Meeting Invitation

Creating notifications

1

Select the **When to Send** tab to select when the record is inserted or updated, as well as set conditions.

2

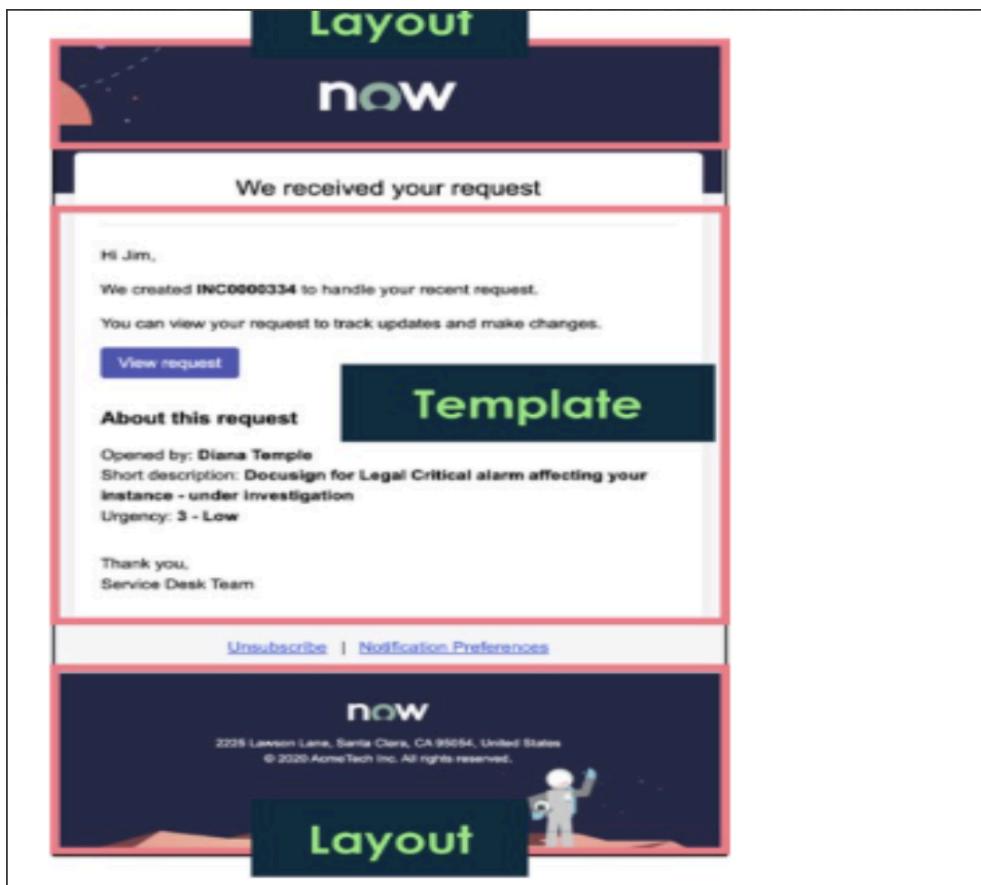
Select **Who will Receive** to choose which users or groups will

3

Select **What it will Contain** to draft the email subject and body. You may also apply an email template under this tab.

Create Email Layout: Navigate to All > System Policy > Email > Layouts

Create Email Template: System Notification > Email > Templates.



Knowledge security and visibility:

User Criteria:- User Criteria defines conditions that are evaluated against users to determine which users can create, read, write, and retire knowledge articles. You can apply several user criteria records to knowledge content.

User Criteria	
The ACME North America HR Department	
* Name	The ACME North America HR Department
Application	Global
Active	<input checked="" type="checkbox"/>
Companies	ACME North America
Locations	
Departments	HR
Match All	<input checked="" type="checkbox"/>
Users	<input type="checkbox"/>
Groups	<input type="checkbox"/>
Roles	<input type="checkbox"/>
Advanced	<input type="checkbox"/>

To implement user criteria, navigate to All > Knowledge > Administration > Knowledge Bases and select a knowledge base. User Criteria records are accessed from the Can read or Can contribute related lists.

The screenshot shows a ServiceNow knowledge base search results page. At the top, there's a navigation bar with tabs: 'Knowledge (8)', 'Can Read' (which is selected), 'Can Contribute', 'Article Templates', 'Featured Content', and 'Knowledge Categories (3)'. Below the navigation is a search bar with a dropdown menu set to 'for text' and a search input field containing 'Search'. To the right of the search bar are icons for refresh, print, and a minus sign, followed by 'New' and 'Edit...' buttons. The main content area has a header 'Knowledge Base = KCS Knowledge Base (demo data)' and a sub-header 'Can Read'. It features a search icon and a table with one column. The table has a single row with a small icon representing a document and the text 'No records to display'.

Localization: Knowledge articles may be published in multiple languages and set to show only articles in the user's selected language.

Knowledge Base: Workflows

The publishing and retirement processes for a knowledge article are controlled by workflows defined for the Knowledge Base that the article belongs to.

The Knowledge Base workflows available in the ServiceNow baseline instance include:

Knowledge - Approval Publish: Requests approval from a manager of the Knowledge Base before moving the article to the published state. The workflow is canceled, and the article remains in the draft state if any manager rejects the request.

Knowledge - Approval Retire: Requests approval from a manager of the Knowledge Base before moving the article to the retired state. The workflow is canceled, and the article remains in the published state if any manager rejects the request.

Knowledge - Instant Publish: Immediately publishes a draft article without requiring an approval.

Knowledge - Instant Retire: Immediately retires a published article without requiring an approval.

Knowledge - Publish Knowledge: A subflow that moves the knowledge article to the published state. You can use this subflow when defining your own workflow.

Knowledge - Retire Knowledge: Moves a knowledge article to the retired state.

Knowledge Base: Import a Word Document

To import a Word document into the Knowledge base:

1. Navigate to All > Knowledge > Articles > Import Articles
2. Select the Knowledge Base

3. Select the Category*
4. Add the Word file (drag and drop or browse for the file)
5. Select Import
6. Select Continue

The screenshot shows the ServiceNow 'Import Article' interface. At the top, there's a navigation bar with 'servicenow' logo, 'All', 'Favorites', 'History', and a search bar labeled 'Import Article'. Below the header, the main form has a title 'Import Articles'. On the left, there's a dropdown menu for 'Knowledge Base' with the placeholder 'Select an option...'. To its right is a 'Category' input field. In the center, there's a large rectangular area for file upload with a placeholder 'Drag and drop DOC or DOCX files here' and a 'Browse Files' button below it. In the bottom right corner of this central area, there's a small 'Import' button.

The Import a Word Document feature allows you to upload more than one document at a time. When uploading multiple documents, one article is created for each uploaded item.

Tables in Knowledge management:-

- **Knowledge Base** (`kb_knowledge_base`) — a container of articles (e.g., IT KB, HR KB).
- **Knowledge Article** (`kb_knowledge`) — the actual document.

Roles:- **Knowledge Manager / knowledge_admin** — role to manage KB (create categories, publish articles).

Note:-

The Knowledge homepage displays knowledge articles organized by Knowledge Base and Category. The Category hierarchy in the Platform is presented as:

Knowledge articles within a Knowledge Base are grouped by a category. An article can only be associated with one KB.

Service Catalog:- The **Service Catalog** is a user-friendly interface that provides requestable products and services such as:

- Hardware (laptops, monitors)
- Software access
- Password resets
- HR services
- Facilities requests
- Cloud provisioning

It is accessible through:

- **Service Portal**
- **Self-Service module**
- **Mobile app**

The goal is to make requesting services **easy, automated, and standardized**.

Where to navigate (common):-

Service Catalog (end user): **Self-Service → Service Catalog** or via Service Portal.

To create a new item or modify an existing item, navigate to All > Service Catalog > Catalog Definitions > Maintain Items.

Common variable types:-

Multiple choice: Creates radio buttons for user-defined question choices

Select box: Creates a choice list of user-defined question choices

Single line text: Creates a single-line text input field

Reference: Specifies a record in another table, similar to a reference field

Check box: Creates a check box which may be selected or cleared

Functionally, a Variable Set is just a container, so it has only two fields: Name and Description. Navigate to All > Service Catalog > Catalog Variables > Variable Sets to create a new variable set.

After you save the variable set, you will get a Related List at the

Key terminology & tables

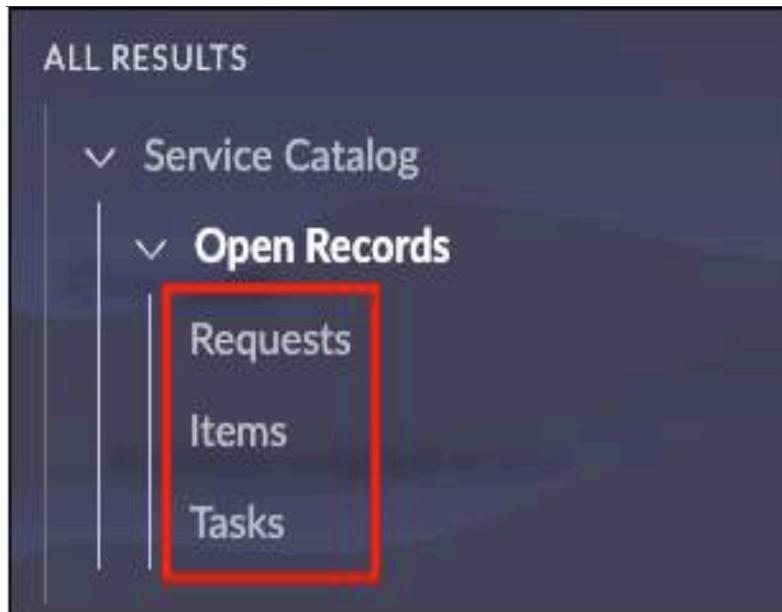
- **Catalog Item** (`sc_cat_item`) — a requestable product or service (e.g., “New Laptop”).
- **Catalog Category** (`sc_category`) — groups items in catalog.
- **Record Producer** (`record_producer`) — creates records (incidents, requests) from the portal.
- **Order / Request / Requested Item**
 - **Request** (`sc_request`) — parent request, groups requested items.
 - **Requested Item** (`sc_req_item / RITM`) — one requested item within a request.
 - **Order** (`sc_request`) similar concept.
- **Catalog Task** (`sc_task / task`) — tasks to fulfill a requested item.
- **Variables & Variable Sets** (`item_option_new, variable_set`) — form fields shown to user when ordering.

User Orders the Item → System Creates:

Table	Description
<code>sc_request</code>	The overall request (REQ number).
<code>sc_req_item</code>	Individual requested item (RITM number).
<code>sc_task</code>	Fulfillment tasks for that RITM.
<code>sc_item_option</code>	Stores variable name/value pairs filled by user.
<code>sc_item_option_mtom</code>	Connects <code>sc_item_option</code> → <code>sc_req_item</code> (links the variable values to the item).

Step-by-step Table Mapping:

Step	Table	What It Stores
1	<code>sc_cat_item</code>	The “Request New Laptop” catalog item definition
2	<code>item_option_new</code>	Defines each variable (laptop_model, justification, urgency)
3	<code>sc_req_item</code>	A record for this specific request (e.g., RITM0012345)
4	<code>sc_item_option</code>	Stores user inputs (HP, Laptop not working, High)
5	<code>sc_item_option_mtom</code>	Links each record in <code>sc_item_option</code> to the RITM (<code>sc_req_item</code>)



Once a catalog item (requests, requested items, and/or tasks) has been ordered, you may check on the status of the item by navigating to All > Service Catalog > Open Records, and select Requests, Items, or Tasks.

Database Management and Platform Security:-

- Records are identified by a 32-character, globally unique ID, called a sys_id.
- Record numbers can be automatically incremented, and the number format per table in the system can be changed by visiting the All > System Definition > Number Maintenance application.
-

Table Relationship:-

Term	Correct Definition
One-to-Many	Within a table, a field can hold a reference to a record on another table.
Many-to-Many	Two or more tables that can be related in a bidirectional relationship.
Database Views	Tables that can be joined using the Database Views plugin.
Extensions	A table that extends another table.

Table Type	Definition	Example
Base Table	Does NOT extend any table	task , cmdb_ci , sys_user
Parent Table	Has child tables extending it	task (parent of incident)
Child/Extended Table	Extends a parent, inherits its fields	incident , problem
Core Table	Provided out-of-box	incident , kb_knowledge
Custom Table	Created by admin/developer	u_employee_request

Import Data:-

Import Data means bringing information from outside into ServiceNow.

Ways of import Data:-

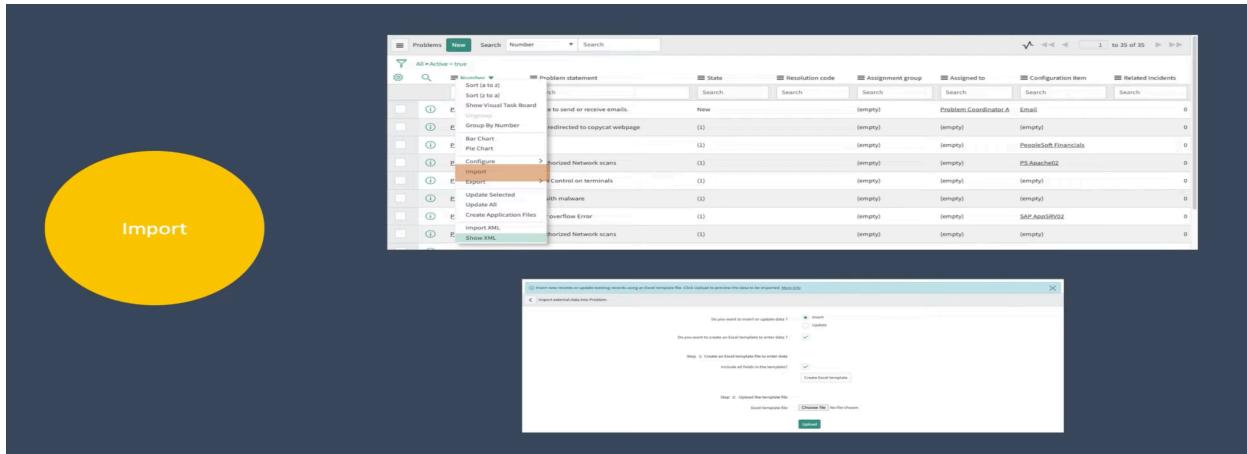
The image shows two screenshots of the ServiceNow interface. The top screenshot displays a list of problems in a grid view. A yellow circle on the left contains the text "Import XML". The bottom screenshot shows a modal dialog titled "Import XML" with fields for choosing a file to upload and an "Upload" button. A yellow circle on the left contains the text "Import Sets". The second screenshot also shows a "Load Data" form for creating an import set, with fields for table creation, source selection, file upload, sheet number, and header row, along with a "Submit" button.

Import Set is a temporary table where data is stored before sending it into a target table.

This is used for bulk data import.

Process:

1. Load Data → data goes into an Import Set table
2. Transform Map → map fields from Import Set to target table
3. Run Transform → data goes to final table



Import Sets Components:-



Data Source:- It tells where the data is coming from.

Example: CSV file, Excel file, JSON, XML, JDBC, etc.

Import Set Table:- A temporary table where data is first stored after loading.

Transform Map:- Rules that tell ServiceNow how to move data from Import Set table → Target table.

Mapping Assist:- A tool that helps you match fields between:

- Import Set table
- Target table

Coalesce(important):- A field used to avoid duplicate records.

-> Used to match records (update if exists, insert if not).

Target Table:- The final table where data should go.

Example: `sys_user, incident, cmdb_ci_server`.

Navigation for EXPORT:-

Any List → Right-click column header → Export → CSV/Excel/XML..

The screenshot shows the ServiceNow Incidents list view. A context menu is open over the 'Short description' column header. The menu includes options like 'Sort (a to z)', 'Sort (z to a)', 'Show Visual Task Board', 'Ungroup', 'Group By Short description', 'Bar Chart', 'Pie Chart', 'Launch Interactive Analysis', 'Launch Process Mining', 'Configure >', 'Import', 'Export >', 'Update Selected', 'Update All', 'Data Management >', 'Create Application Files', 'Import XML', and 'Show XML'. The 'Export' option is highlighted. To the right of the menu, there is a table of incidents with columns: Number, Opened, Short description, Priority, State, Category, Assignment group, Assigned to, Updated, and Upd. Each incident row contains a set of search and filter buttons.

ServiceNow allows you to import a file directly from any list view without going to Load Data.

Navigation for IMPORT

① Load Data (File Import)

System Import Sets → Load Data

Path:

👉 All → System Import Sets → Load Data

2 View Import Set Table

System Import Sets → Import Sets

Path:

👉 All → System Import Sets → Import Sets

3 Create a Transform Map

System Import Sets → Create Transform Map

Path:

👉 All → System Import Sets → Transform Maps

4 Mapping Assist

Inside Transform Map:

👉 Field Maps → Mapping Assist

5 Run Transform

In Import Set record:

👉 Related Links → Run Transform

CMDB:-

Why do we use a CMDB?

- To know what assets we have (servers, software, networks, etc.)
- To understand relationships between components (e.g., which server runs which application)

- To help in troubleshooting and impact analysis (e.g., if a server goes down, what services are affected?)
- To support change management and avoid unnecessary outages
- To keep IT environment organized and documented

Small Example

Imagine you have an application “Payroll System”.

A CMDB would store:

- Server01 – runs Payroll System backend
- Database01 – stores employee salary data
- AppServer02 – hosts the frontend website
- Network Switch05 – connects the servers
- Software versions – Java 11, MySQL 8
- Relationships – Payroll System depends on Database01 and Server01

So if Server01 fails, CMDB quickly shows:

Payroll System → Not working
 Database01 → Affected
 Users → Cannot access payroll

This helps IT teams fix issues faster.

What CMDB:-

- Configuration Management Database.
 - It is a series of table which stores information about different Configuration Item (CI) their attributes and also relationship between them.
 - asset, itil, itil_admin, cmdb_read
- 3 key Tables of CMDB -
- cmdb
 - cmab_ci
 - cmdb_rel_ci

Configuration Item (cmdb_ci):-

- Any item that needs to be managed in order to deliver services.
- A CI can be a Computer,Laptop,router,server, database, applications.

A CI record will contain all the relevant data such as -

- Name
- Owned by
- Model ID
- Used for
- Vendor

Configuration Item Form

The screenshot shows a configuration form for a 'Room Layout App Service Offering'. The left side is labeled 'CI Attributes' and contains fields for Name (Room Layout App Service Offering), Model ID, Owned by (Wilmer Constantineau), Parent (Conference Event Services), Used for (Production), Operational status (Operational), Vendor, Short Description (This is the application used by event planners to design the layout of furniture and equipment.), Description, and Comments. A green box highlights the 'Toggle between CI Health Dashboard view and Form view' button at the top right. The right side shows a toolbar with 'Dashboard' (highlighted in red), 'Form', 'Update', and 'Delete' buttons. Below the toolbar are fields for Support group (Conference Event App Support), Change group (Conference Event App Support), Managed by (Bow Ruggeri), Version, Business criticality (2 - somewhat critical), SLA, and Location. A green box highlights the 'Related Items toolbar' at the bottom. A red bracket groups the 'Related Items toolbar' and the 'Relationships to other CIs' section, which includes a list of related items under 'Depends on'.

CI Attributes

Toggle between CI Health **Dashboard** view and **Form** view

Support group: Conference Event App Support

Change group: Conference Event App Support

Managed by: Bow Ruggeri

Version:

Business criticality: 2 - somewhat critical

SLA:

Location:

Related Items toolbar

Relationships to other CIs

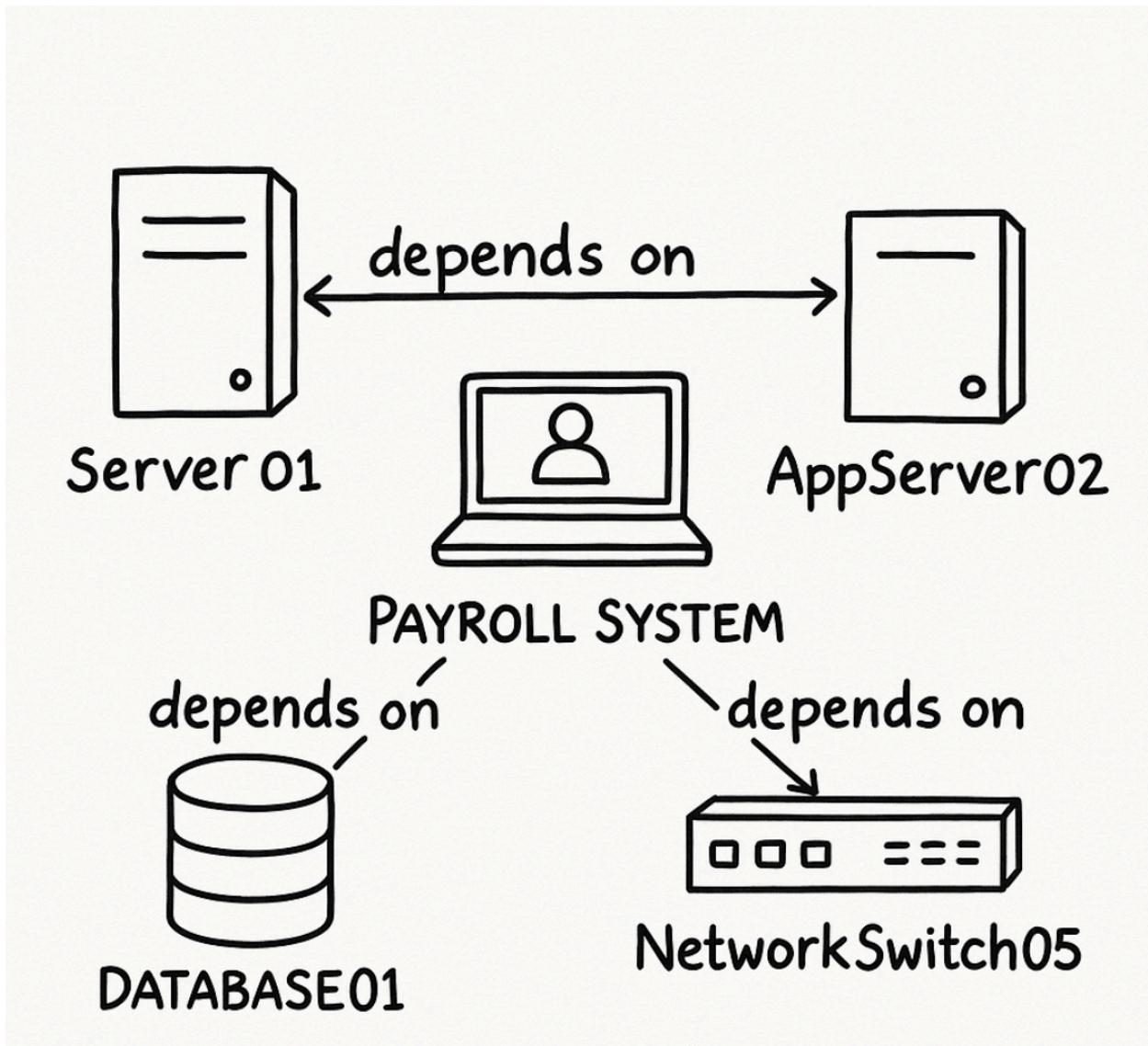
Depends on - Applications

- Depends on - Room Layout Application
- [Conference Event Management Application Service -]Food Management Application
- [Conference Event Management Application Service -]Event Mobile for Staff Application
- [Conference Event Management Application Service -]Event Mobile for Attendees Application
- Depends on - Application Services
- [Conference Event Management Application Service

CI Relationship (cmdb_rel_ci):-

- It stores different type relationship between different CI.
- It helps to understand root problem of a particular issue.
- It also helps to understand which services can be affected due to this effective CI.
- It helps us to understand the infrastructure of an IT company.

Note:- All Things Present Inside All>Configuration



1 Server01

- This is a backend server.
- The Payroll System uses this server to run its backend programs.

👉 Meaning:

If **Server01** stops working, the Payroll System will not run properly.

2 AppServer02

- This server runs the **application / frontend** of the Payroll System (what users see on screen).

👉 **Meaning:**

If **AppServer02 goes down**, users cannot open or use the Payroll website/app.

3 Database01

- This stores all employee salary data.

👉 **Meaning:**

If **Database01 fails**, the Payroll System will not get any data → salaries, records, nothing will load.

4 NetworkSwitch05

- This device connects everything through the network.

👉 **Meaning:**

If the **network switch stops**, all servers and the Payroll System lose connection.

Steps to Create a CI and relationship (with Navigation)

◆ **Step 1: Open CMDB**

Navigation:

CMDB → Configuration → Base Items

Here you will see a list of existing CIs.

◆ **Step 2: Click “New”**

Navigation:

Top-right corner → **New**

This opens a new CI form.

◆ **Step 3: Select CI Type**

Navigation:

CI Type Dropdown → choose one

Example: **Server**

◆ **Step 4: Fill CI Details (Attributes)**

You will see fields like:

- **Name:** Server01
- **IP Address:** 10.10.10.5
- **Operating System:** Windows Server 2019
- **Location:** Data Center
- **Status:** In Production
- **Owner:** Infra Team

Navigation:

Simply scroll and fill every required field.

◆ **Step 5: Add Relationships**

Navigation:

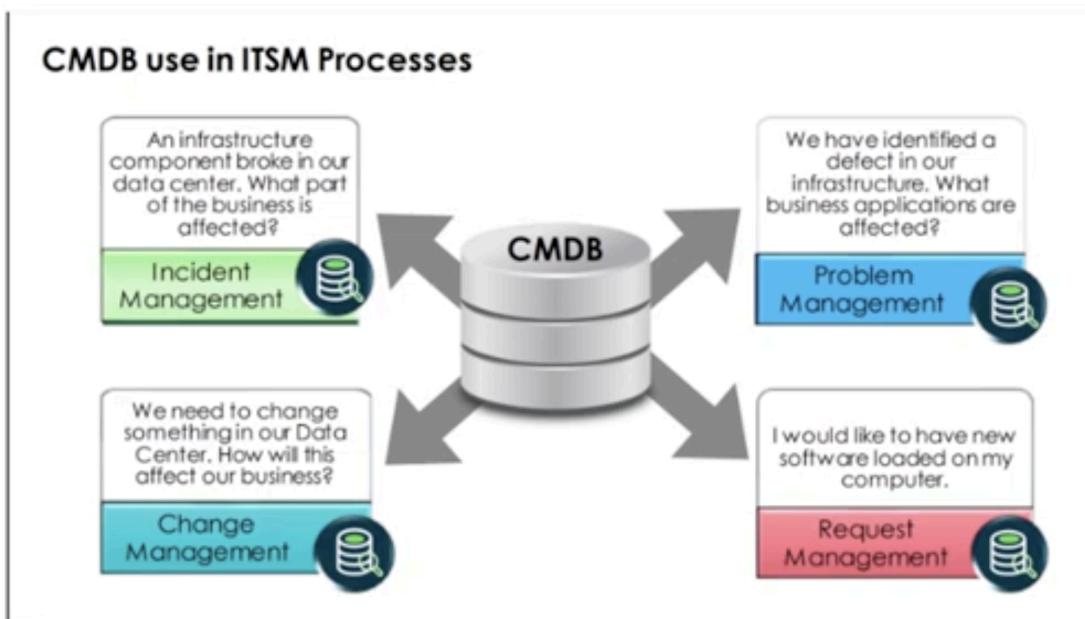
Scroll → find **Relationships** section → click **Add**

Here you can choose:

- **Depends on**

- Connected to
- Runs on
- Hosted on
- Used by

Uses of CMDB in ITSM



1. CI Class Manager (What it is + Why we use it)

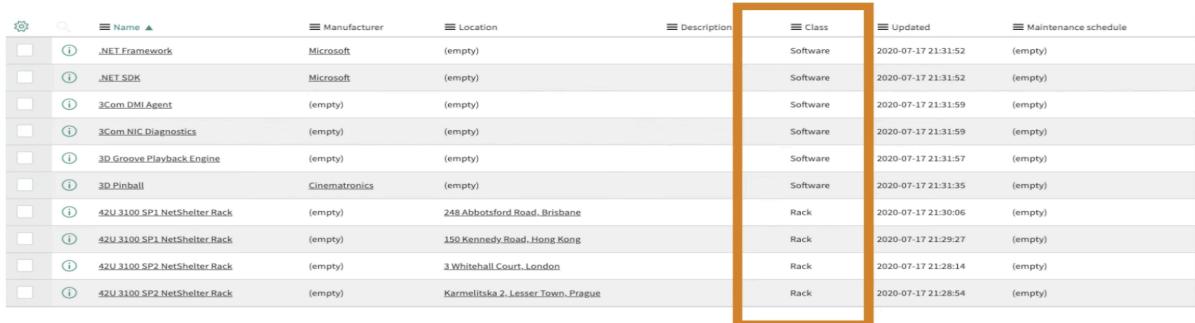
What is CI Class Manager?

It is a place where you **create and manage CI classes**.

A *CI class* means:

- Category of CI or Group of CIs which stores common attributes.

Classes



Name	Manufacturer	Location	Description	Class	Updated	Maintenance schedule
.NET Framework	Microsoft	(empty)		Software	2020-07-17 21:31:52	(empty)
.NET SDK	Microsoft	(empty)		Software	2020-07-17 21:31:52	(empty)
3Com DMI Agent	(empty)	(empty)		Software	2020-07-17 21:31:59	(empty)
3Com NIC Diagnostics	(empty)	(empty)		Software	2020-07-17 21:31:59	(empty)
3D Groove Playback Engine	(empty)	(empty)		Software	2020-07-17 21:31:57	(empty)
3D Pinball	Cinematronics	(empty)		Software	2020-07-17 21:31:35	(empty)
42U 3100 SP1 NetShelter Rack	(empty)	248 Abbotsford Road, Brisbane		Rack	2020-07-17 21:30:06	(empty)
42U 3100 SP1 NetShelter Rack	(empty)	150 Kennedy Road, Hong Kong		Rack	2020-07-17 21:29:27	(empty)
42U 3100 SP2 NetShelter Rack	(empty)	3 Whitehall Court, London		Rack	2020-07-17 21:28:14	(empty)
42U 3100 SP2 NetShelter Rack	(empty)	Karmelitska 2, Lesser Town, Prague		Rack	2020-07-17 21:28:54	(empty)

What you can do inside CI Class Manager:

- Create new CI class
- Edit existing CI class
- Add new fields / attributes
- Set rules
- Set inheritance (child and parent classes)

Simple Example:

You create a CI class named **Application Server**.

Inside it you add fields like:

- CPU
- RAM
- OS
- Patch Version

2. Query Builder (What it is + Why we use it)

What is Query Builder?

Query Builder allows you to **search and filter CI data** from the CMDB.

It helps you find:

- Which servers belong to which applications
- Which network devices are connected
- Which CIs are related
- Which CIs are unhealthy or missing data

What you can do with Query Builder:

- Build queries visually
- Add conditions
- Join CIs with relationships
- Save queries
- Export results

Simple Example:

You build a query:

Show all servers **connected to NetworkSwitch05**

Output shows:

- Server01
- Server02

- ServerBackup05
-

3. Dashboard (What it is + Why we use it)

What is the CMDB Dashboard?

Dashboard shows **visual reports** of the CMDB.

Like:

- Number of Servers
- Number of Applications
- CI health score
- Relationship map
- Missing data
- Orphan CIs
- Duplicate CIs
- Change history

What dashboards help with:

- Tracking CMDB data quality
- Checking CI completeness
- Viewing trends
- Seeing impact analysis

- Monitoring CMDB health

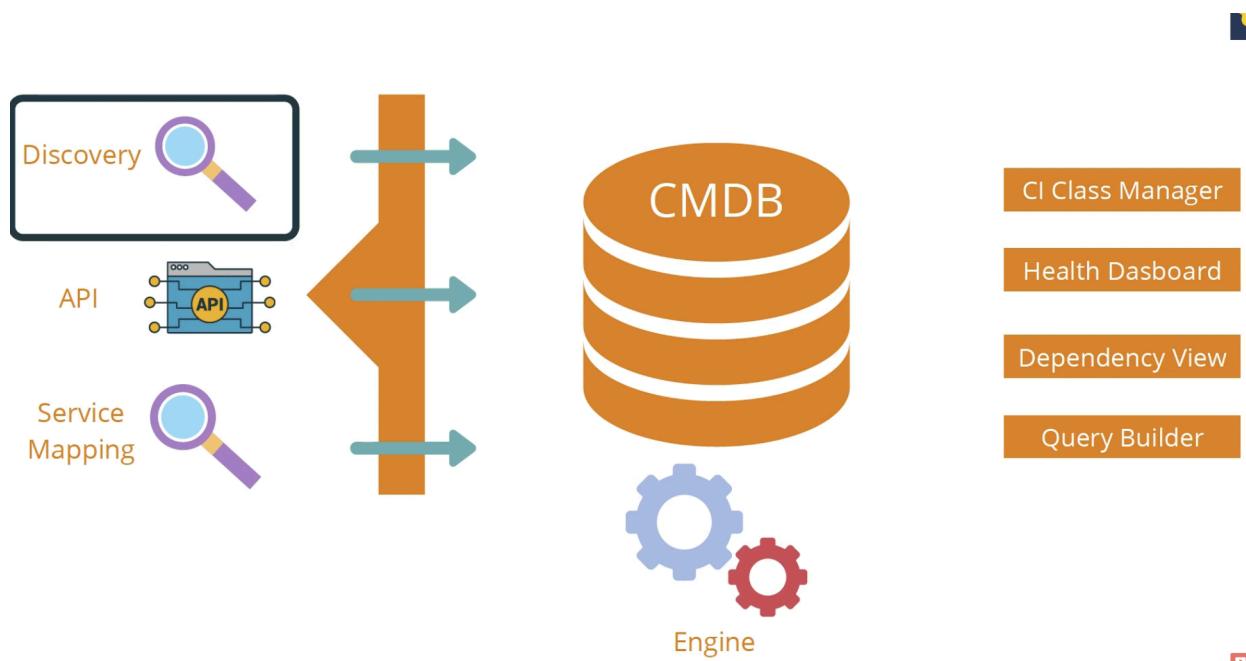
Simple Example:

Dashboard shows:

- 500 CIs total
- 40 CIs missing owner
- 25 CIs missing relationships
- 10 CIs in “Retired” status

You immediately know what to fix.

CMDB Architecture:-



Access Control List:-

What is ACL.

- How a servicenow user can interact with data in table.
- A record in sys_security_acl table.
- To create or edit ACL you need to **Elevate role**.
- Highest level of security can be applied on –
 1. Table
 2. Record (row)
 3. Field (column)

- Using the **Filter Navigator**, type: <table name>.CONFIG

CRUD Operation

- Create
- Read
- Update/Write
- Delete

ServiceNow restricted operation

- Execute
- Edit_ci_relations
- Save as template
- Report on
- Personalize Choice

Each Access Control rule specifies:

- A valid **operation** - a valid action the system can take (CRUD)
- The **object** being secured (e.g., table, table AND field)
- The **permissions** required to access the object:
 - Roles
 - Conditional Expressions
 - Scripts

Shared Responsibility Model:-

Shared Responsibility Model

- It defines the security responsibilities between Customer and ServiceNow.
- When I, as a customer, purchase a ServiceNow instance for my project, the Shared Responsibility Model clarifies exactly where my security and operational duties begin and where ServiceNow's end.
- ServiceNow is responsible for Security of the Cloud (the platform, infrastructure, host OS, and data center).
- The Customer is responsible for Security in the Cloud (the application configuration, user access, ACLs, custom code, and data itself).

Area of Responsibility	Responsibility		
	Customer	ServiceNow	Colocation (Data center providers)
Secure configuration of instance	●		
Authentication and authorization	●		
Data management (classification and retention)	●		
Data encryption at rest	●		
Data encryption in transit	●	●	
Encryption key management	●	●	
Security logging and monitoring	●	●	
Secure SDLC processes	●	●	
Penetration testing	●	●	
Vulnerability management	●	●	
Privacy	●	●	
Compliance: regulatory and legal	●	●	●
Employee vetting or screening	●	●	●
Physical security/environment controls	●	●	●
Cloud infrastructure security management		●	
Infrastructure management		●	
Media disposal and destruction		●	
Backup and restore		●	
Business continuity and disaster recovery		●	

A Area of Responsibility	B Customer Role	C ServiceNow Role	D Explanation
Secure configuration of instance	Responsible		The customer is solely responsible for hardening their instance. This includes activating required security plugins, setting minimum password policies, enforcing Multi-Factor Authentication (MFA), and ensuring correct system properties are configured.
Authentication and authorization	Responsible		The customer defines who can access the platform (authentication) and what they can do (authorization). This means setting up SSO (Single Sign-On), managing Roles and Groups, and correctly configuring ACLs (Access Control Lists) to restrict data access.
Data management (classification and retention)	Responsible		The customer determines what data is sensitive (e.g., PII, confidential), how long it must be kept (retention), and when it needs to be deleted.
Data encryption at rest	Responsible		ServiceNow provides the default encryption for the platform and the options for premium encryption (like Column Level Encryption). The Customer must choose to enable and configure these settings, and optionally purchase CMEK to control their own encryption keys.
Data encryption in transit	Shared	Shared	ServiceNow manages the secure connection (HTTPS/TLS) for all data transfer. The Customer is responsible for ensuring their integration endpoints (e.g., external APIs they connect to) also use secure, encrypted protocols.
Encryption key management	Shared	Shared	ServiceNow manages the default platform encryption keys. The Customer is responsible for managing the lifecycle and security of any Customer-Managed Encryption Keys (CMEK) they choose to use.
Security logging and monitoring	Shared	Shared	ServiceNow monitors host and infrastructure logs for external attacks. The Customer monitors application logs (transaction logs, system logs) to detect and respond to suspicious activity or misuse by their own users within the instance.
Secure SDLC processes	Shared	Shared	ServiceNow manages the security of the core product code (the platform). The Customer is responsible for securing their custom application code and development processes (using code review, static analysis, etc.).
Penetration testing	Shared	Shared	ServiceNow : Conducts regular external and internal penetration tests on the core platform to find and fix vulnerabilities. Customer : Can hire third parties to perform authorized penetration tests on their specific instance configuration and custom applications.
Penetration testing	Shared	Shared	ServiceNow : Conducts regular external and internal penetration tests on the core platform to find and fix vulnerabilities. Customer : Can hire third parties to perform authorized penetration tests on their specific instance configuration and custom applications.
Vulnerability management	Shared	Shared	ServiceNow patches the OS and database software. The Customer is responsible for remediating vulnerabilities found in custom code or configurations they have deployed.
Privacy	Shared	Shared	ServiceNow : Adheres to global privacy standards regarding the handling of customer data. Customer : Defines the privacy rules for their users, such as access policies and data deletion procedures.
Compliance: regulatory and legal	Shared	Shared	ServiceNow provides the platform with certification like SOC and ISO. The Customer must configure their instance (e.g., via ACLs, retention policies) to ensure their specific business process meets legal requirements like HIPAA or GDPR.
Employee vetting or screening	Shared	Shared	Customer : Screens and vets their own employees who will be granted access to the instance (especially administrators). ServiceNow : Screens and vets the employees who operate and support the underlying infrastructure and data centers.
Physical security/environment controls	Shared	Shared	ServiceNow manages the network and logical access. The Colocation partner (where applicable) or ServiceNow manages the physical access control, climate control, and fire suppression in the data center building.
Cloud infrastructure security management		Responsible	ServiceNow manages and secures the virtualization layer, hypervisors, and all core components that make the cloud work.
Infrastructure management		Responsible	ServiceNow handles the provisioning, maintenance, patching, and scaling of the hardware and operating systems.
Media disposal and destruction		Responsible	ServiceNow is responsible for securely destroying hard drives and other media when they reach end-of-life to prevent data recovery.
Backup and restore		Responsible	ServiceNow performs regular data backups of your instance and provides the tools and processes for restoring the instance in case of data loss or disaster.
Business continuity and disaster recovery		Responsible	ServiceNow maintains the processes and infrastructure needed to recover services following a major disaster.

Access Security Center you have following two roles required:-

