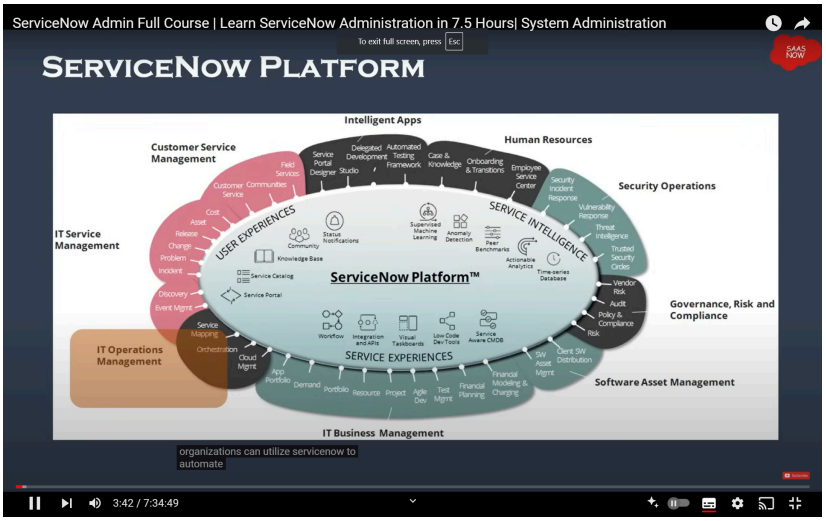
WEEK-2

KEY TOPIC:
ServiceNow Admin Full Course | Learn ServiceNow Administration

SUB-TOPICS:
Platform Overview and Architecture, User Interface and Branding, List & Filters and Forms, Task Management, Notifications, Knowledge Management, Service Catalog, Tables and Fields, Access Control List, Data Import, CMDB, Integration, Update Sets, Events, Platform Stats

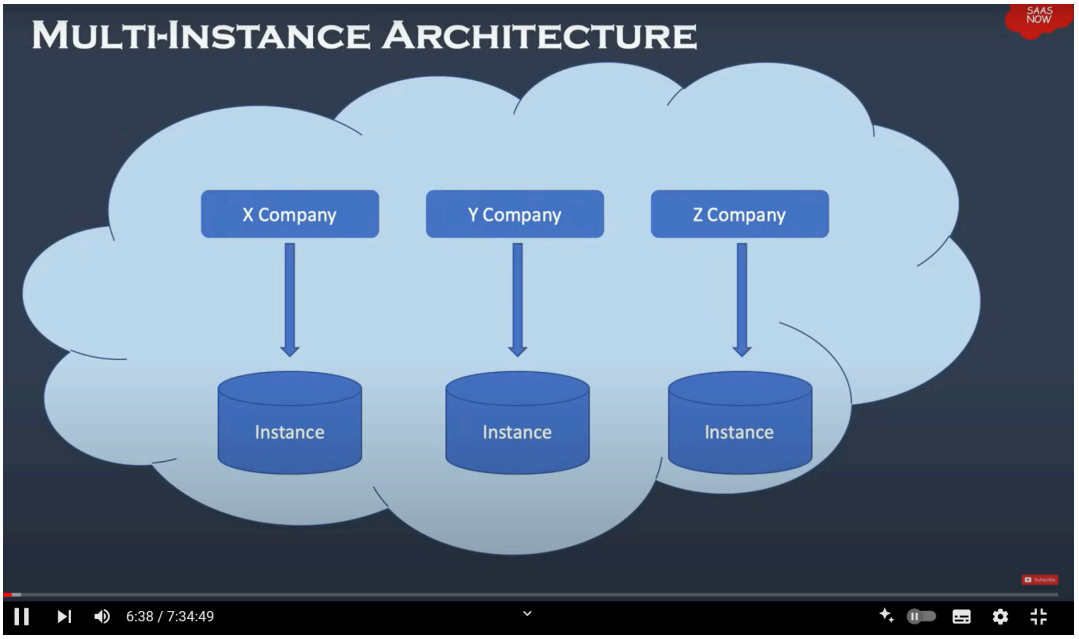
Platform Overview and Architecture

ServiceNow is an American-based company with a product called ServiceNow platform, an application platform as a service (APAAS) that is not limited to any specific business functions and can be utilised in different areas of an organisation such as IT, HR, finance and security.
ServiceNow was known to be a ticketing tool earlier however now it is an automation platform in which we can automate different business processes.



Multi-tenant Architecture

This is a multi-tenant and multi-instance architecture in which every organisation has their instance.



User Interface and Branding

ServiceNow offers two main ways to interact with the platform:

1. **Native UI**: The primary interface is accessible via Chrome, Edge, Firefox, and Safari.
2. **Mobile Apps**: ServiceNow Agent, Now Mobile, and Onboarding, tailored for specific roles and needs.
3. **Service Portal**: A user-friendly self-service portal for requesting services, searching for knowledge, and accessing information.

Role-Based Access in ServiceNow

Role-based access in ServiceNow controls user permissions using **users**, **groups**, and **roles**:

- **User**: A user is assigned to groups and roles, determining their platform access, represented as a record in the `sys_user` table.
- **Group**: A collection of users with shared responsibilities, stored in the `sys_user_group` table. Roles assigned to a group apply to all its members, simplifying permissions management.
- **Role**: A set of permissions that control what users can do and see, listed in the `sys_user_role` table. Roles are assigned to users or groups for efficient access control.

There are 3 main screen elements: -

1. Banner Frame

2. Application Navigator

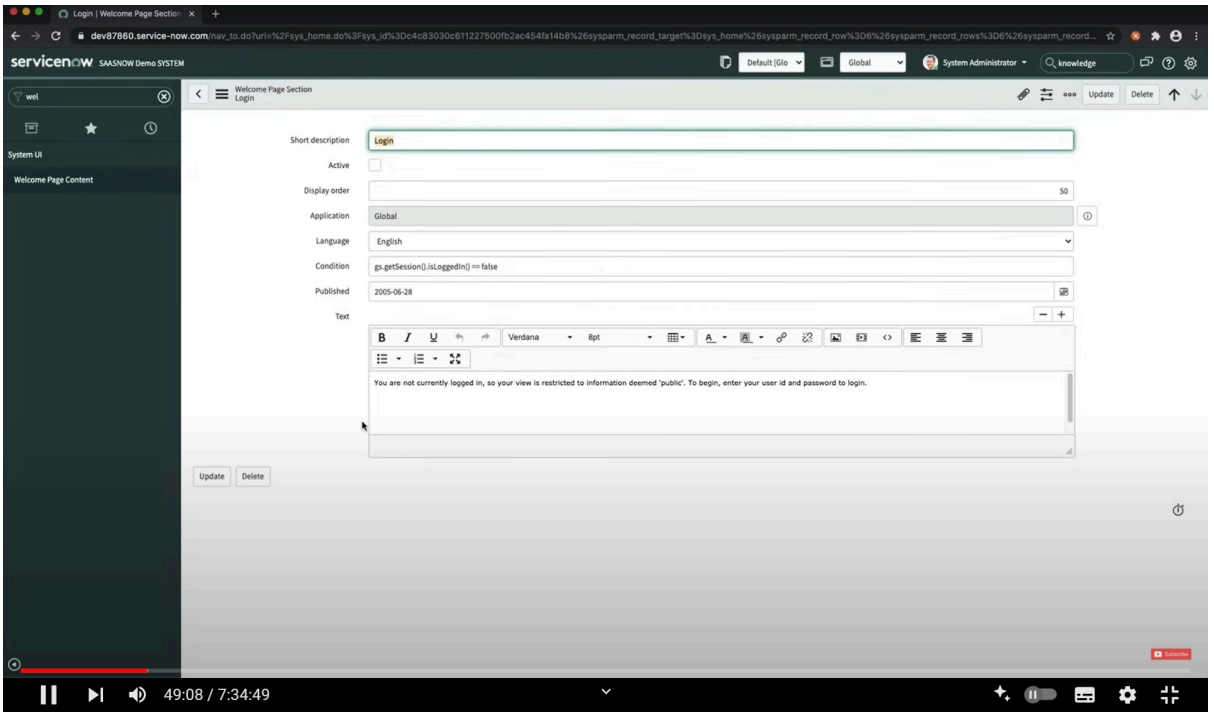
3. Content Frame

ServiceNow has three main screen elements:

1. **Banner Frame**: Contains the company logo, navigation menu, global search bar, discussions sidebar (Connect Chat), help, notifications, and user menu.
    - **User Menu**: Includes profile, impersonate user, elevate roles (for admins), system settings, and more.
    - **Global Search**: Search across the instance.
    - **Help**: Access user guides, contextual help, and documentation.
    - **Discussions Sidebar**: Real-time chat tool.
2. **Application Navigator**: Located on the left, it allows quick access to applications, modules, and functionalities. Applications are collections of files and data (e.g., IT, HR, Service Desk). You can pin apps/modules to favourites for easy access and view recent actions (up to 30 items).
3. **Content Frame**: The main area displaying selected application or module content like forms, lists, dashboards, reports, etc.

Branding Overview

- Branding involves customizing the instance to reflect the company's identity, including changing the logo, name, and color theme.
- Configuration options for branding are accessible via the UI16 configuration module, where users can change images and text.
- Additional settings for welcome page content and other UI elements can be customized to enhance the user experience.



List & Filters and Forms

Lists in ServiceNow display records from a table in a grid format, allowing easy viewing, filtering, and sorting. You can access lists in three ways:

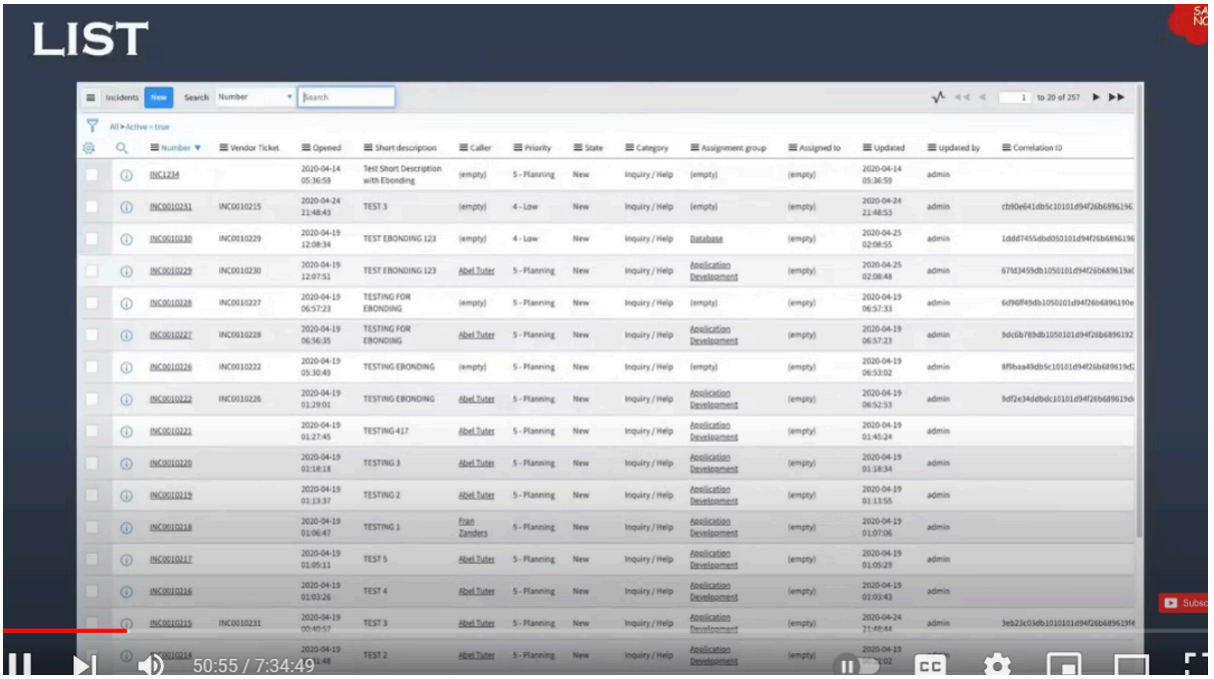
1. **Application Navigator**: Select the module to view the list.
2. **Dot List Command**: Use commands like `incident.list` to open a list quickly.

3. **Sys_db_object Command**: Use `sys_db_object.list` to view tables and select one.

Using `Table_name.list` opens the list view, while `Table_name.LIST` opens it in a new tab.

The List Header in ServiceNow offers tools for managing and interacting with lists:

- **List Controls**: Perform actions on the list or its items.
- **List Control Menu**: Change views, apply filters, group items, refresh the list, or create favorites.
- **Column Option Menu**: Configure columns, import data, create reports, and sort.
- **List Field Menu**: Copy the unique `sys_id` of a record.
- **Filter Lists**: Search and apply filters to narrow records.
- **Table Search Bar**: Search for specific records.
- **Personalize Icon**: Customize the list view to your preferences.



FILTER

in ServiceNow, a filter narrows down data in a table list by applying specific conditions, which consist of:

- Field: The data field to filter by, including options from related tables via dot-walking.
- Operator: Defines how to compare the field's value (e.g., "is," "contains").
- Value: The criteria for the field (e.g., text entry or list choice).

Steps to Create a Filter:

1. Open the List: Navigate to the desired list (e.g., Incidents).
2. Access Filter Options: Find the Filter icon or menu in the list header.
3. Create a New Filter: Click the Filter icon/menu and select "Create Filter" or "Add Filter Condition."

Breadcrumbs

Display filter conditions at the top of the list in blue letters, providing an overview and allowing modification of conditions. Click a breadcrumb to adjust or remove conditions.

Group By: Organizes list records based on a specific field, grouping similar records together.

Refresh List: Updates the list to reflect recent changes or updates.

List Personalization

List Personalization allows you to customize a list's layout and display for your own use, without affecting others.

- Personalize List: Adjust the list layout and display for your account only.
- Temporary Customization: Personalizations are temporary and won't reflect global updates until reset.
- Reset to Column Defaults: To see global updates, reset your personalized list to the default settings.

List Layout Configuration

List Layout Configuration in ServiceNow involves adjusting the columns or fields displayed in a list view. This is typically done by administrators and affects how all users see the list. Here's how to configure the list layout for a table:

•Navigate to the List:

•Go to the list you want to configure and make sure you're viewing it in the correct mode or view.

•Access Column Options Menu:

•Click on the options menu for any column in the list (usually represented by a gear icon or similar).

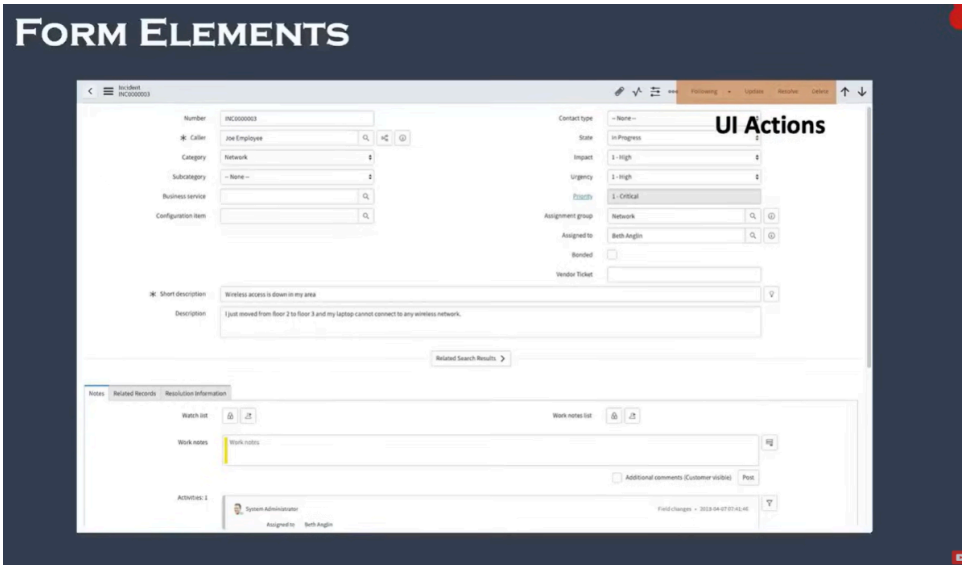
•Configure the List Layout:

•Select Configure from the menu.

•Choose List Layout to open the configuration options.

Forms

Forms in ServiceNow manage records with a structured interface linked to specific tables.



Key Components:

- Header Bar: Provides key information and controls.
- Read-Only Fields: Show uneditable information.
- Required Fields: Must be filled out, marked with an asterisk (*).
- Sections: Group related fields for better readability.
- Formatter: Displays extra information or instructions.
- Related Lists: Show records from related tables.

Field Types:

- Reference Field: Selects records from another table.
- Document ID: Selects records using a unique identifier.
- Date/Time: For date and time selection.
- String: For text entry.
- Choice List: Drop-down menu of predefined options.
- True/False: Checkbox for binary choices.

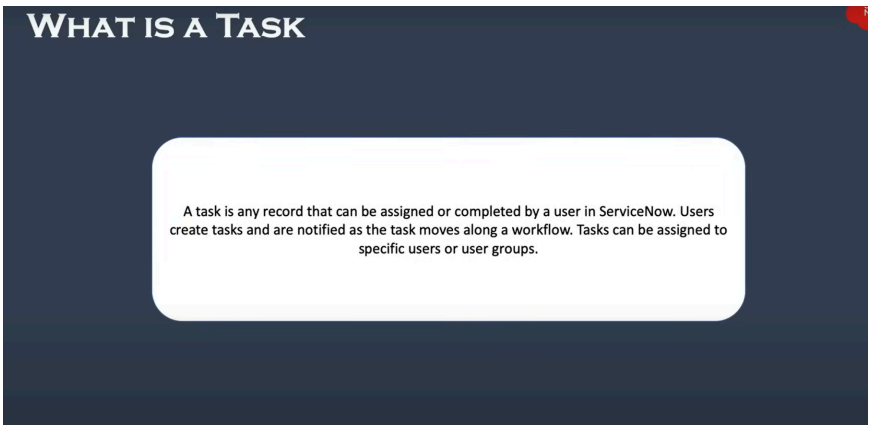
Saving Changes:

- Submit: Saves and closes the form; shows "Submit" for new records and "Update" for existing ones.
- Save: Saves changes but keeps the form open.
- Unsaved Changes Warning: Alerts if navigating away with unsaved changes.

Task Management

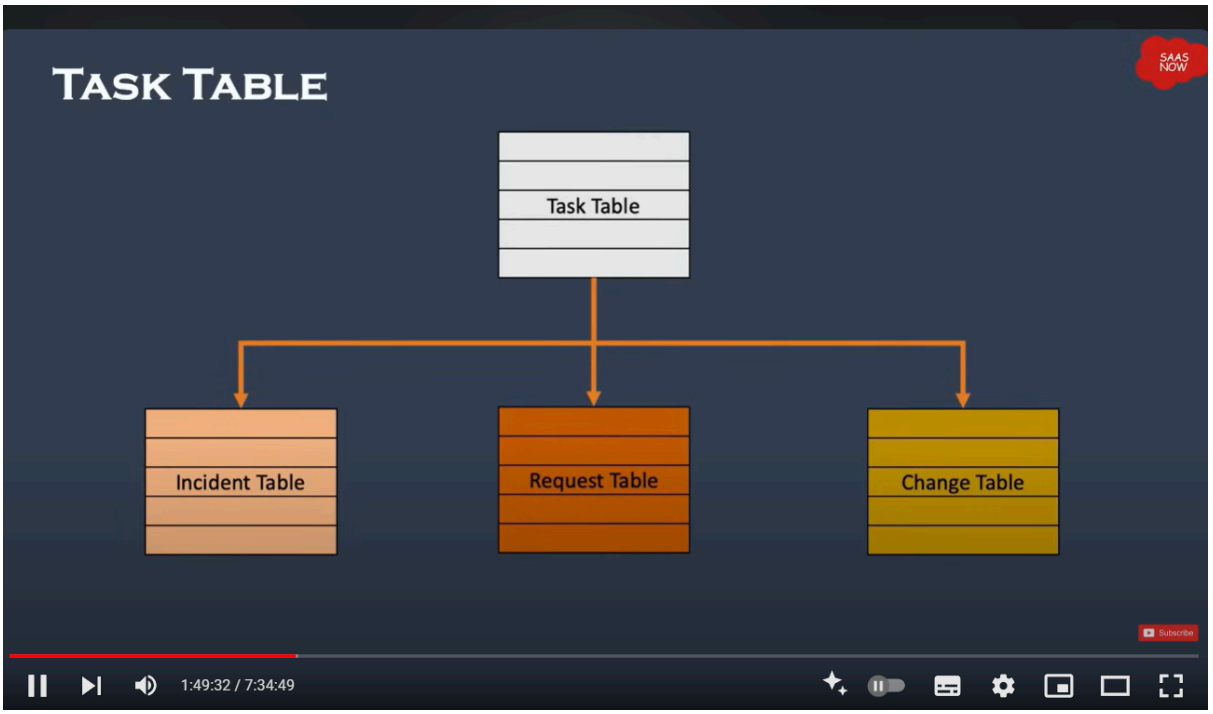
What is a Task?

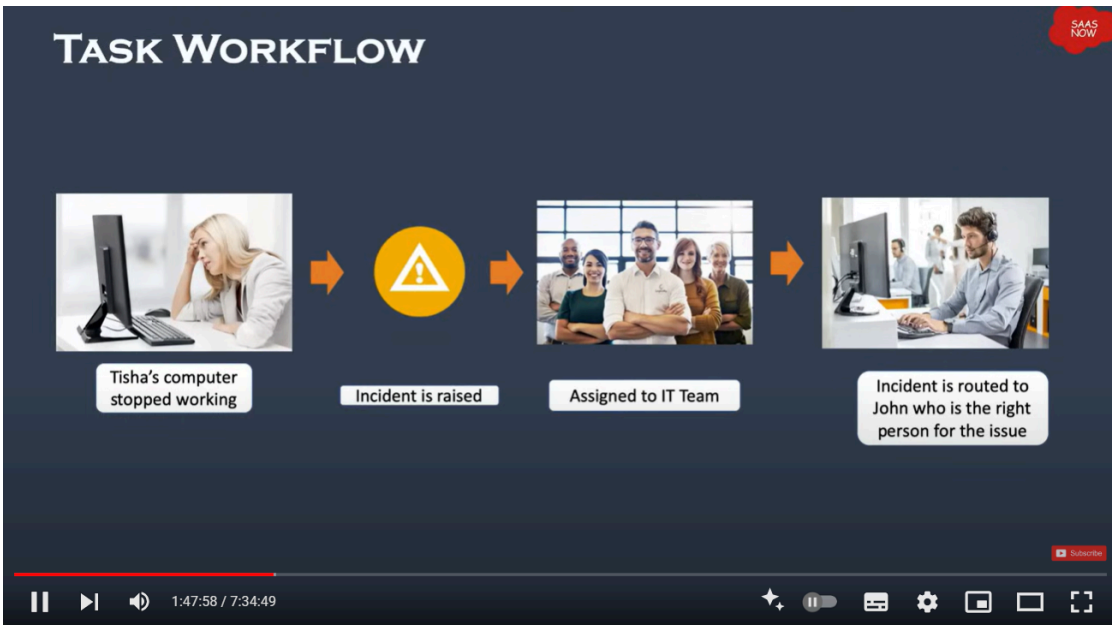
Tasks can be records assigned to users or groups, including incidents and requests.

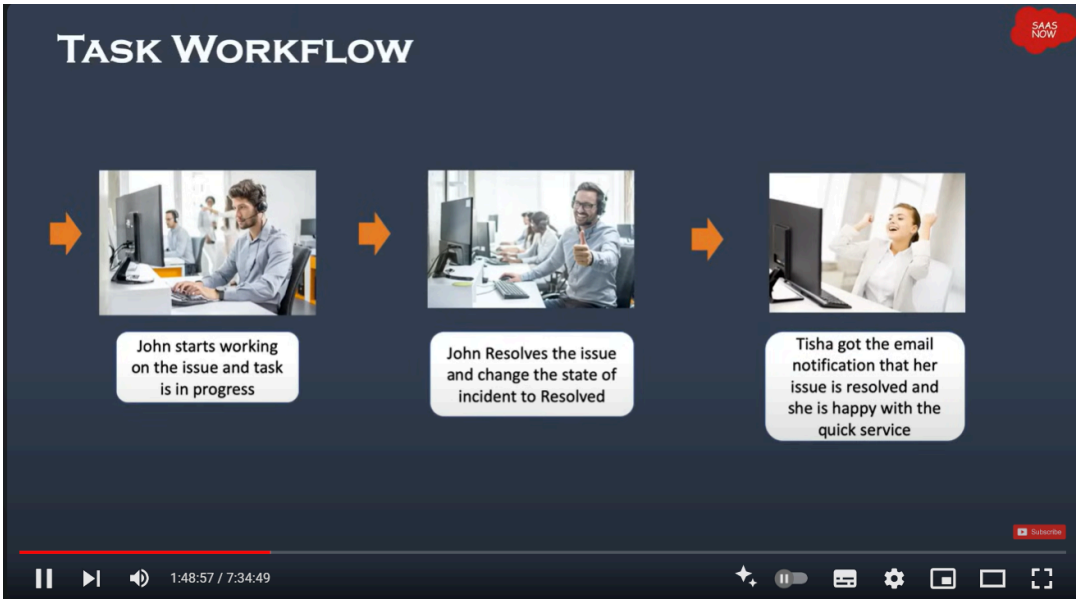


Task Table

The task table is a core table in IT Service Management (ITSM) for managing various tasks like incidents, changes, and problems. It serves as a foundation for other tables that extend its functionality to handle specific task types.







Ways for Task Assignment

1. Manual Task Assignment

- Direct Assignment: Users can directly assign tasks to individuals or groups by updating the assignment fields on the task form. This method is often used for ad-hoc or one-off tasks.

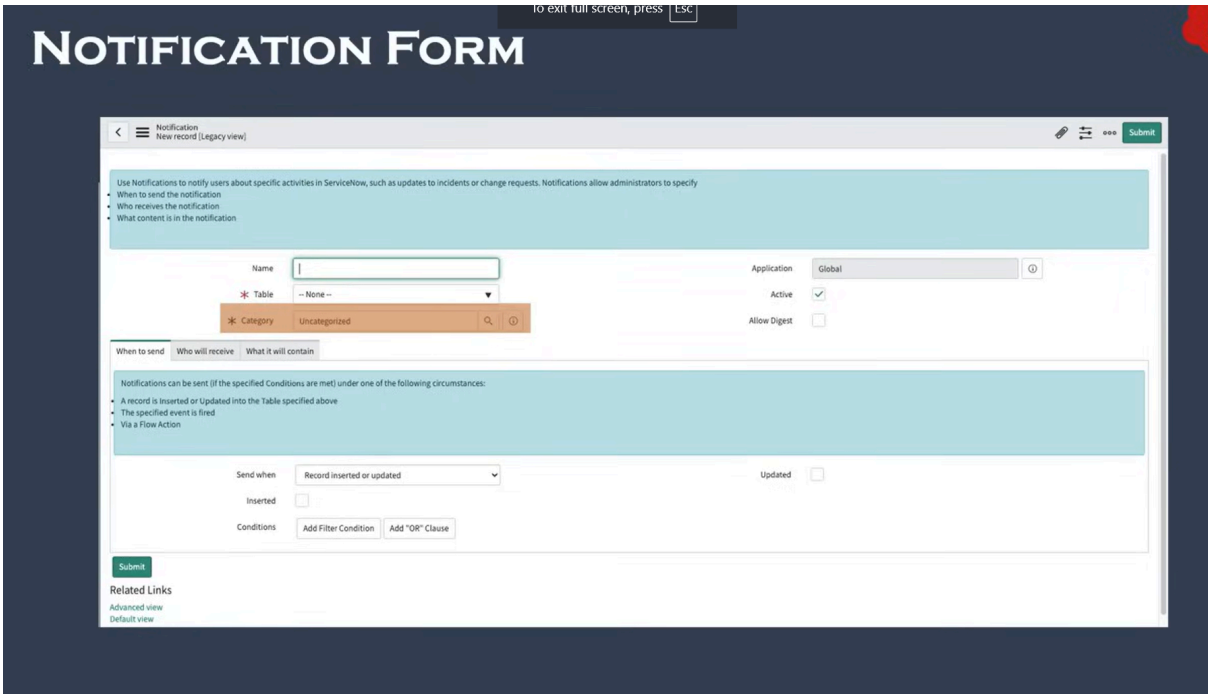
● Assignment Group: You can assign tasks to a specific group, allowing any member of the group to pick up and work on the task. This is useful for collaborative environments where multiple team members may be responsible.

2. Assignment Rules

Creation of Assignment Rules: Assignment Rules automate task assignments based on conditions (e.g., task type, priority). For example, a rule can assign high-priority incidents to a specialized team.

Rule Configuration: Set up conditions, actions, and scripts within assignment rules to control how tasks are distributed. These rules are applied when a task is created or updated.

Notifications



● Notifications are a key feature used to inform users about various events or changes in the system. They can be configured to send out emails, text messages, or other forms of alerts based on specific conditions or triggers.

● "Inbound" and "outbound" notifications refer to different aspects of how the system handles notifications and communication with users or external systems.

Inbound Notifications

Inbound Notifications refer to messages or data received by ServiceNow from external sources. This typically involves processing incoming emails, web service requests, or other forms of data input.

Outbound Notifications

Outbound Notifications are messages sent from ServiceNow to users or external systems. These notifications can be in the form of emails, SMS, or other communication methods. The primary goal is to keep stakeholders informed about changes, updates, or important events.

Managing Notifications

To manage and configure both inbound and outbound notifications, follow these steps:

Navigate to Notifications:

- For outbound notifications, go to the Notification module. Here you can create new notifications or modify existing ones.
- For inbound email actions, navigate to the Inbound Actions module to set up rules and actions for processing incoming emails.

Create or Modify Notifications:

Define the notification name, conditions, and triggers.

Specify recipients, notification format, and content templates.

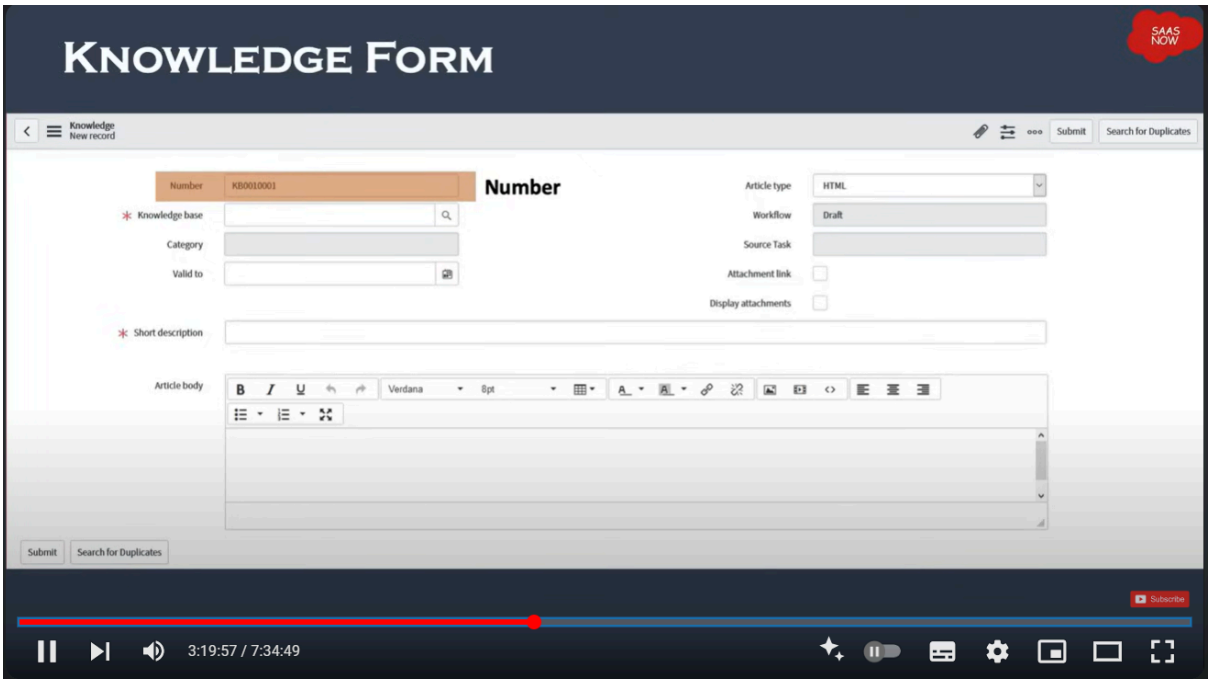
OOB Notification

Out-of-the-box (OOB) notifications are predefined notifications provided by the platform to support common use cases and streamline communication processes. These notifications are designed to cover a range of standard scenarios and can be customized as needed.

Notification Form:

The Notification Form is where you configure and manage email notifications. This form allows you to define the conditions, recipients, content, and other settings for notifications that are sent out when specific triggers or conditions are met.

Knowledge Management



Knowledge article: Knowledge articles provide information like policies, troubleshooting steps, and resolutions.

Benefits of Knowledge Management

- The Knowledge Management application lets users create and maintain knowledge articles, categorized by departments or business units.

- Users can import articles from external files, and articles go through stages like unpublished, published, and retired.

- By capturing and reusing knowledge, organizations can avoid redundant work. This prevents the re-creation of solutions that have already been documented and shared.

Knowledge Management Application

- The Knowledge Management application is designed to help organizations capture, manage, and utilize knowledge effectively. The application includes several key modules that work together to facilitate the creation, management, and dissemination of knowledge.

1. Knowledge Base

The central repository where all knowledge articles are stored. Knowledge bases can be organized into categories and subcategories to make it easier to find and manage content.

2. Knowledge Article

Individual entries or documents that provide detailed information on specific topics, solutions, or procedures.

3. Knowledge Management

The core module for managing knowledge processes, including article creation, review, publication, and maintenance.

4. Knowledge Search

The search functionality allows users to find knowledge articles quickly and efficiently.

5. Knowledge Management Analytics

Provides insights and reports on knowledge management activities and performance.

6. Knowledge Management Administration

Tools and settings for configuring and managing knowledge management application features.

Service Catalog

One-stop shopping for ordering, and requesting required products and services. The Service Catalog application in the Platform allows users to view, request, and shop around for services and products. To create a new item or modify an existing item, navigate to All > Service Catalog > Catalog Definitions > Maintain Items

Variables and Variable Sets

The Service Catalog variables help define the structure of a catalogue item form that is displayed to the customer. For example, you can define variables such as Hardware Type, Color, Price, etc.

Functionally, a Variable Set is just a container, so it has only two fields: Name and Description.

To create a new variable set.

Navigate to All > Service Catalog > Catalog Variables > Variable Sets Common Variable Types

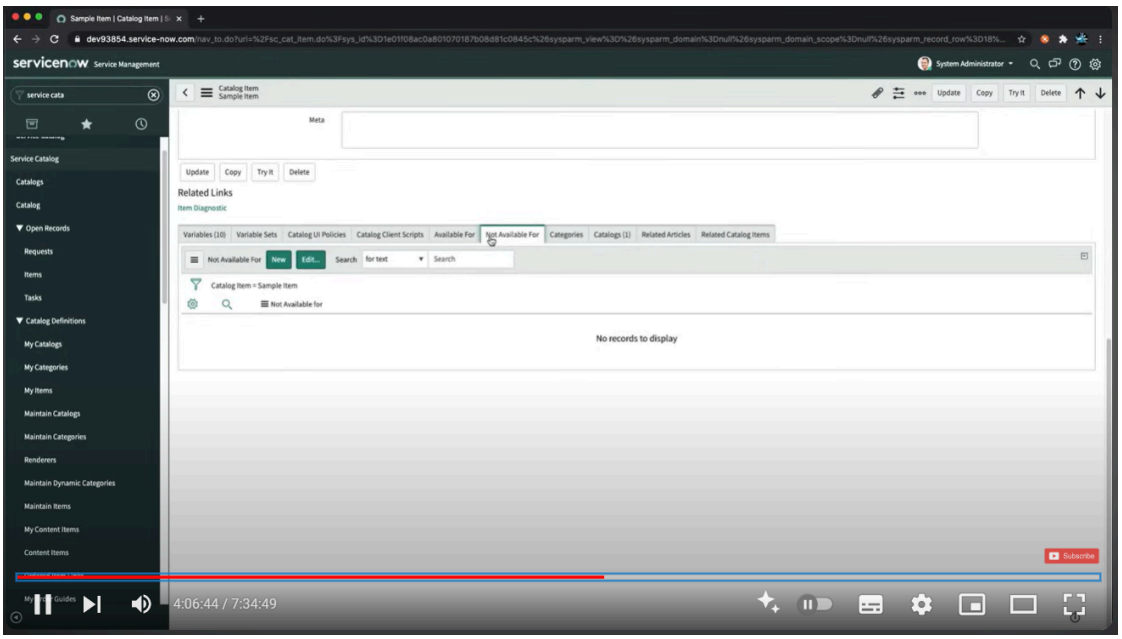
● **Multiple Choice:** Creates radio buttons for user-defined question choices

● **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



Record Producer

A Record Producer focuses on a specific process or task and can be used anywhere in the ServiceNow platform.

A record producer is a specific type of catalog item that allows end users to create task-based records, such as incident records, from the service catalog.

Record Producers appear as simplified forms, allowing users to provide information that is translated into task-based records being added or modified in the database.

Order Guide

Order Guides provide the ability to order multiple, related items as one request. Remember that variables are presented by the Order field number.

Use an Order Guide to assist users in determining what items they need. Service Catalog Item Request Output For Catalog items, a request is created. A request can have one or more items associated with it.

An item can have one or more tasks associated with it. Each output is stored in the appropriate corresponding table.

Benefits of Service Catalog

1. Enhanced User Experience

2. Improved Efficiency

3. Increased Transparency

4. Better Resource Management

5. Enhanced Service Delivery

TABLES AND FIELDS

In ServiceNow, everything is built on a relational database with records identified by a 32-character, globally unique `sys_id`.

Tools for Viewing and Modifying Database Structure:

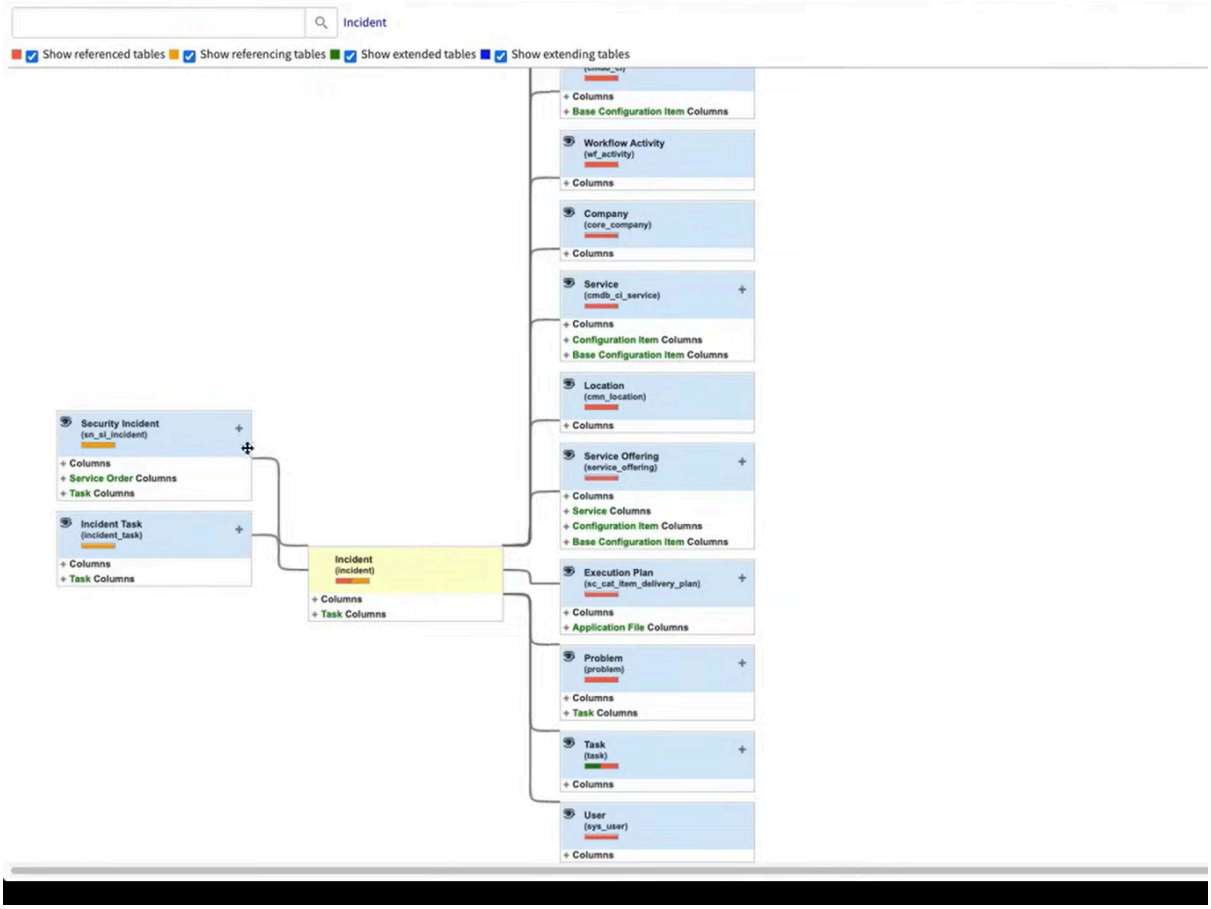
- Tables Module: Lists all database tables.
- Tables & Columns Module: Shows tables, columns, attributes, and indexes.
- Schema Map: Graphically represents table relationships.
- Data Dictionary Tables: Provides details on database elements.

Types of Tables in ServiceNow:

1. **Base Tables:** Foundational tables that provide the primary structure for applications.
2. **Extended Tables:** Inherit fields and functionality from base tables, allowing for customization.
3. **Core Tables:** Essential, out-of-the-box tables crucial for ServiceNow's core applications and modules.
4. **Custom Tables:** User-created tables designed to meet specific business needs not covered by standard tables.

FIELDS

Fields are individual pieces of data within a table. They represent the specific attributes or properties of the records in that table. Each field in a table is associated with a particular type of data, such as text, numbers, dates, or references to other records.



Shortly,**Fields** in a table represent individual data attributes:

1. **Field Label**: User-friendly name displayed on forms and lists, describing the field's purpose.
2. **Field Name**: Technical identifier used for scripting and database operations.
3. **Field Value**: Actual data stored in the field, visible and interactable by users.

Access Control List

Access Control Lists (ACLs) are a critical feature used to define and enforce security rules for records, fields, and other objects in the platform. ACLs ensure that users have appropriate permissions to view, create, update, or delete data according to their roles and responsibilities.

Operations Restricted

Access Control Lists (ACLs) are used to control access to various operations on records, fields, and tables. The operations that can be restricted through ACLs are typically related to CRUD (Create, Read, Update, Delete) actions.

1. Create

- This operation controls whether a user can create new records in a table.

2. Read

- This operation determines whether a user can view records in a table.

3. Update

- This operation controls whether a user can modify existing records in a table.

4. Delete

- This operation determines whether a user can delete records from a table.

5. Execute

- The Execute operation pertains to the ability to run business rules, scripts, and other server-side operations that affect the behavior of records.

6. Save as Template

- The Save as Template operation allows users to save the current record or configuration as a template that can be reused to create new records with similar attributes.

7. Report On

- **The Report On operation allows users to generate reports based on the data in a table. This action controls whether users can create and run reports on specific tables or records.**

HOW ACL WORKS

1. User logins to ServiceNow and access a record.

2. System finds ACL for same objects.

3. The system finds the matching rule.

4.If a match found, evaluate the ACL

5. else grant access

6. Pass the ACL

7. Access not granted

Data Import

● Data import in ServiceNow involves bringing data from external sources into the ServiceNow platform. This can be crucial for setting up ServiceNow instances, migrating data from other systems, or integrating with external applications.

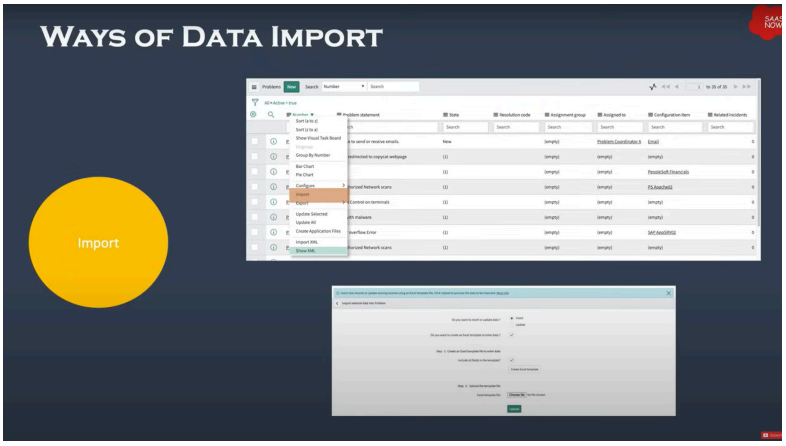
Import set components

1. Data Source

Defines the origin of the data to be imported into ServiceNow. This can be a CSV file, Excel file, XML, JDBC source, or other supported formats. Specifies where the data comes from and how it should be imported into the Import Set Table.

2. Import Set Table

A staging table where data is initially loaded before it is transformed into the target table. Each import set creates a temporary table specific to the import job.



3. Transform Map

Maps fields from the import set table to the target table, defining how data should be transformed and imported.
Transforms data from the import set table into the correct format and location in the target table.

4. Mapping Assist

Mapping Assist is a feature in ServiceNow that helps users map fields from an import set table to a target table. It simplifies the process of creating and managing field mappings by providing a user-friendly interface.

5. Coalesce

Coalesce is a feature in ServiceNow used during data import to determine how records in the import set table should be matched or updated in the target table. It helps in identifying existing records and avoiding duplicates by defining which fields should be used to match records.

6.Target Table

The Target Table is the table in ServiceNow where the data from the import set table will be finally loaded or transformed. It is the destination for the data after it has been processed according to the rules defined in the transform map.

CMDB

Configuration Management Database

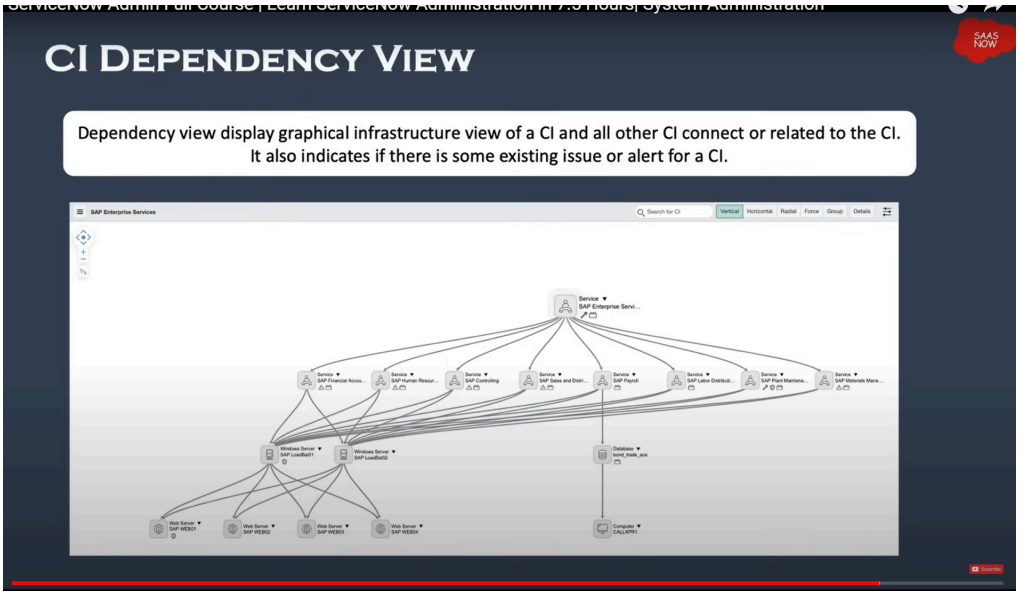
The Configuration Management Database (CMDB) in ServiceNow is a core ITSM component that serves as a centralized repository for storing information about configuration items (CIs) and their relationships, crucial for managing and understanding IT infrastructure and dependencies.

Configuration item(CI)

A Configuration Item (CI) is any component or service asset that needs to be managed to deliver IT services. CIs can include hardware, software, documentation, and services. They are tracked in the CMDB to help organizations understand their IT environment, manage IT operations, and ensure service delivery.

CI Dependency View

The CI Dependency View in ServiceNow is a visual representation of the relationships and dependencies between Configuration Items (CIs) within the Configuration Management Database (CMDB). This view helps users understand how different CIs are connected, which can be crucial for impact analysis, change management, incident resolution, and overall IT operations.



CI Class Manager

The CI Class Manager in ServiceNow is a tool used to manage and organize the various Configuration Item (CI) classes within the Configuration Management Database (CMDB). CI classes define the types of configuration items and their associated attributes. Managing these classes effectively is crucial for maintaining an accurate and functional CMDB.

Update Sets

Update Sets are groups of configuration changes moved between ServiceNow instances. They bundle changes into a named set for transfer, tracked as an XML file containing:

- Record Details: Identifies the update set.
- Configuration Changes: Lists all changes.
- State: Determines if changes can be applied to another instance.

An update set acts as a snapshot of process records and writes changes to the `sys_update_xml` table. When merging, the most recent changes are applied.

Use update sets to migrate customizations from development to production, and use batch update sets to handle multiple updates at once.

To create or set an update set, go to All > System Update Sets > Local Update Sets. Mark it as complete and export to XML when finished.