1.1 What is ServiceNow?

ServiceNow is a software Company based in Santa Clara, California, founded by Fred Luddy in 2003, to solve problems large enterprises face with traditional IT delivery by providing a robust, simple to use Cloud-based environment which business people can use to solve the problems themselves.

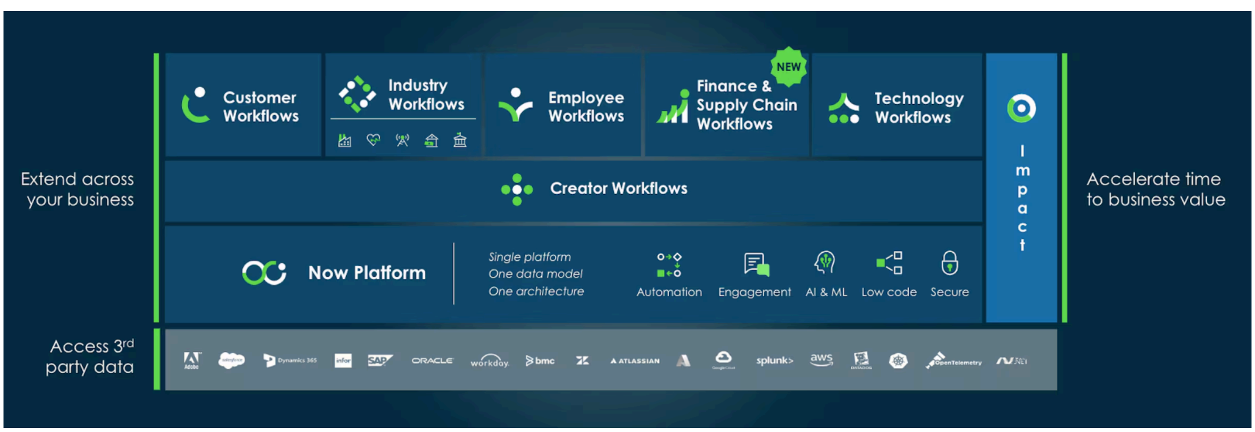
The company's core business revolves around management of "incident, problem, and change" IT operational events.

Purpose of ServiceNow Platform

The Purpose of the ServiceNow Platform is to provide a cloud-based solution that enables organizations to automate and streamline their business processes, improve service delivery and enhance overall operational efficiency.

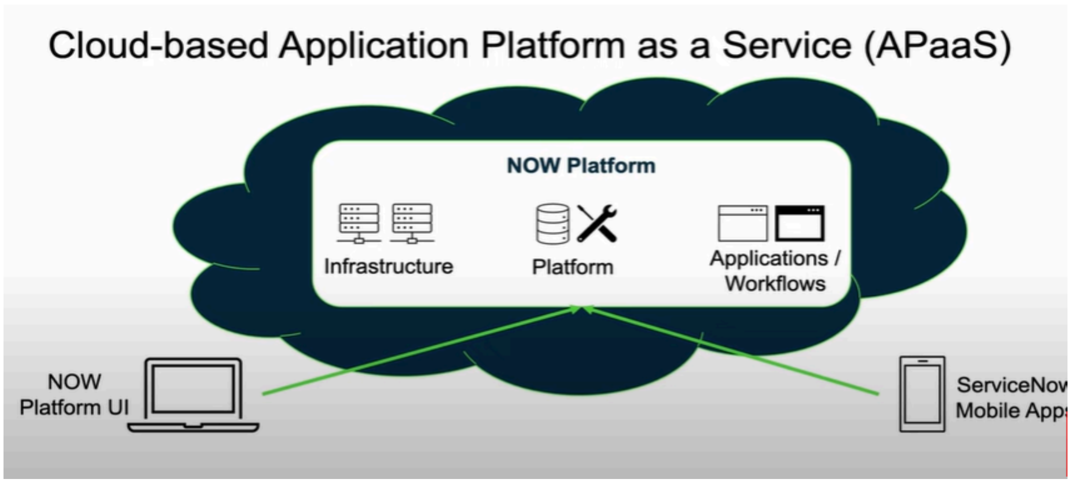
ServiceNow Platform is a cloud-based platform that provides digital workflow automation to manage various business processes and IT operations.

ServiceNow offers a range of applications that span IT service management (ITSM), IT operations management (ITOM), IT business management (ITBM), and many other business functions such as HR, security, and customer service.



1.2 ServiceNow Platform Overview

The ServiceNow Platform is an Application Platform-as-a-Service. This means the platform resides in the cloud. Companies no longer have to buy and manage the equipment necessary to host these applications.



- ServiceNow utilizes an advanced, multi-instance, single-tenant architecture as the default offering for customers, meaning an instance features an individually isolated database containing data, applications, and customizations.

- ServiceNow provides services to its users from a configurable web-based user interface, built on top of a flexible database schema.

- The Platform and the applications that run on it use a single system of record to consolidate an organization's business processes.

- The Platform integrates with other enterprise systems and supports a wide variety of plug-and-play applications.

- ServiceNow Provides a platform upon which you can build custom applications.

- All ServiceNow Data Centers are paired with another datacenter to provide redundancy. Redundancy is built into every Layer including devices and network resources

- Backups & Security - Servicenow provides 4 weekly full data backups and 6 days of daily differential backups. The entire platform is secured using third party security organization

ServiceNow Applications and Workflows

A workflow is a set of activities or tasks that automate a business process. Workflows help streamline processes, enforce business rules, and reduce the need for manual intervention.

4 Primary Workflows of ServiceNow

IT Workflow

Focuses on automating IT service management processes.Includes Incident , Change and Request Management.

Example: Resolving an IT incident or processing a change request.

Employee Workflow

Streamlines internal processes to enhance the employee experience.Includes HR Service Delivery, Employee Center, and Employee Onboarding.

Example: Automating new employee onboarding or handling HR requests.

Customer Workflow

Enhances customer service and support functions.Includes Case Management, Field Service Management, and Customer Service Management.

Example: Managing customer inquiries or scheduling a field service appointment.

Creator Workflow

Allows custom app development to meet unique business needs.Includes App Engine, Integration Hub.

Example: Building a custom application to automate a specific business process.

Now Platform User-Interfaces

Now Platform UI (Classic UI) - it is traditional UI, best suited by the desktop and laptop . Features a navigation pane on the left and content on the right. Allows users to access modules, forms, lists, and other functionalities.

ServiceNow Mobile Apps - Mobile friendly interface used to perform on the go actions like requests and approval, create incidents and notifications.

Service Portal - A user-friendly, responsive web interface designed for end-users. Typically used for self-service tasks, like submitting requests, searching for knowledge articles, and reporting incidents.

Next Experience UI (Unified Navigation) - Offers a more visually appealing and user - friendly experience.

User , Role and Group in serviceNow

User: An individual who has access to the ServiceNow platform. Each user has a unique login and can have various permissions based on their roles.
It is a record in the sys_user table.

Role: A set of permissions that define what a user can see and do within the ServiceNow platform. Roles are assigned to users and can grant access to specific features or applications.They are used to set Access Controls (ACL)
It is a record in the sys_user_role table.

Group: A collection of users who share a common purpose or responsibility, such as a department or team. Groups can be used to manage user permissions and workflows, and can have roles assigned to them for easier access management.
It is a record in the sys_user_group table.

Role Based Access in ServiceNow

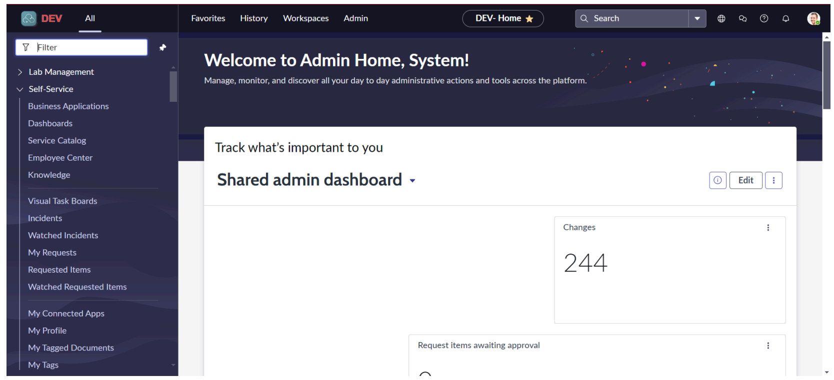
When a user logins to an instance, Servicenow validates their identity and enables access to applications and modules based on their roles and groups. It uses

1. local database authentication
2. External single sign-on(SS0)
3. Multi factor authentication

1.3 ServiceNow User Interface Overview

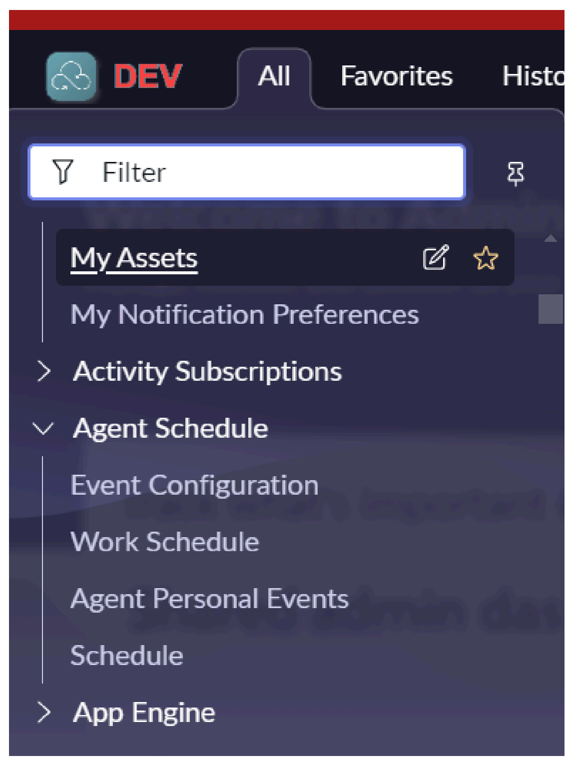
There are three parts

1. Banner Frame
2. Application Navigator
3. Content Frame



Application Navigator:

The Application Navigator in ServiceNow is a component located on the left side of the interface that provides a way for users to quickly access different applications, modules, and functionalities within the platform.



Applications are the Collection of files and data , they serve as the building blocks for delivering services such as IT, HR resource management , Service Desk etc

Modules are the individual functionalities or operations available under each Application.

Application Scoping protects the access to each application. It allows users to search for and navigate to specific applications or records, making it easier to perform tasks or access information.

You can Pin the Applications and modules to favorites for quick access

Content Frame:

The Content Frame is the main area in the ServiceNow interface where the content related to the selected application or module is displayed. This is where users interact with forms, lists, dashboards, reports, and other data.

Banner Frame Contains:

Company Logo , Navigation Menu, Favorites, Workspace, History, UI Banner, Global Search Bar, Application Scope piker, Browser tab Title, Discussions sidebar(chat tool) , Show Help, Notifications and User Menu

Important Things in User Menu

1. Profile - shows the profile of current user
2. Impersonate User - used to login and assume the identity of another user
3. Elevate Roles - Available to only base admin to elevate his role to security_admin
4. Preferences - allows you to access and personalize some settings for your user experience in ServiceNow like themes, Display options, Time zone.

The Application Scope Picker (represented by a globe) is a tool that allows developers and administrators to select and switch between different application scopes within the ServiceNow platform.

History: Provides a list of recently viewed items and records , allowing users to easily navigate back to previously accessed content.

Favorites: Allows users to save and quickly access frequently used items like records, lists or reports

Discussions Sidebar - Chat tool for real-time messaging

Workspace is a specialized interface that provides a modern, streamlined experience for performing tasks and managing work. Workspaces are designed to specific roles and responsibilities of the user.

Examples Service Operations Workspace , CMDB Workspace ,

1.4 ServiceNow Branding Overview

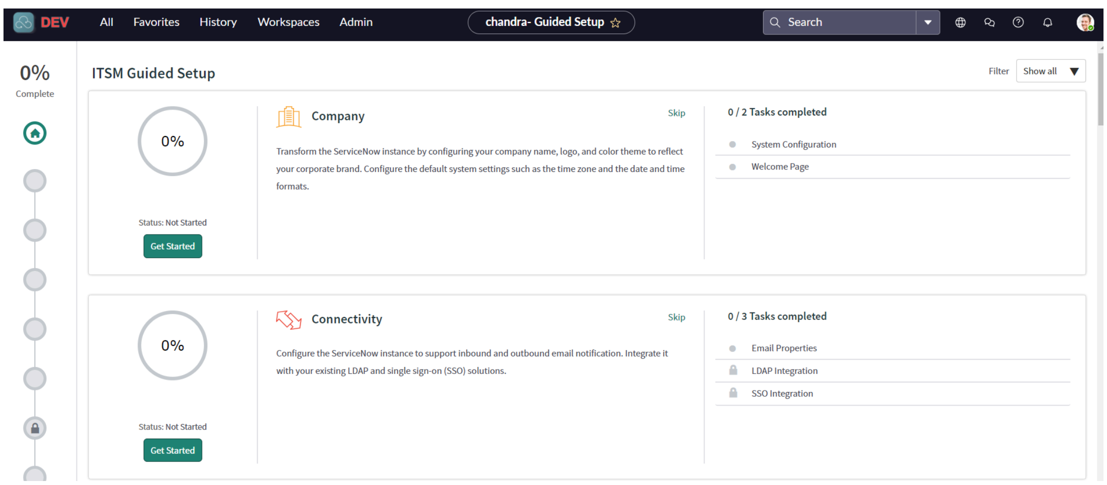
Applying your distinct corporate identity across the Now Platform UI to Create a shared identity is Called Branding in serviceNow.

Guided Setup

Guided Setup is a feature in serviceNow that provides a structured, Step-by-step process to help administrators configure and customize their ServiceNow Instance.

It incorporated best practices into the setup process, helping the administrators configure their instance according to recommended guidelines.It includes company, CMDB, incident Management, Problem Management, Change Management, Configuration Items, Service Catalog, Knowledge management, etc

Guided Setup for ITSM



Customization like changing logo, company name can be done using the system properties

ALL - System Properties - System Configuration - Set timezone,date, color

ALL - System Properties - My Company - UI Banner - logo - Banner Text

All the properties are a table in servicenow so these properties come under sys_properties table

1.5 ServiceNow Lists and Filters

Lists in serviceNow are a type of interface that displays a set of records from a table in a grid or tabular format. Lists provide a way to view, filter, sort and interact with multiple records at once.

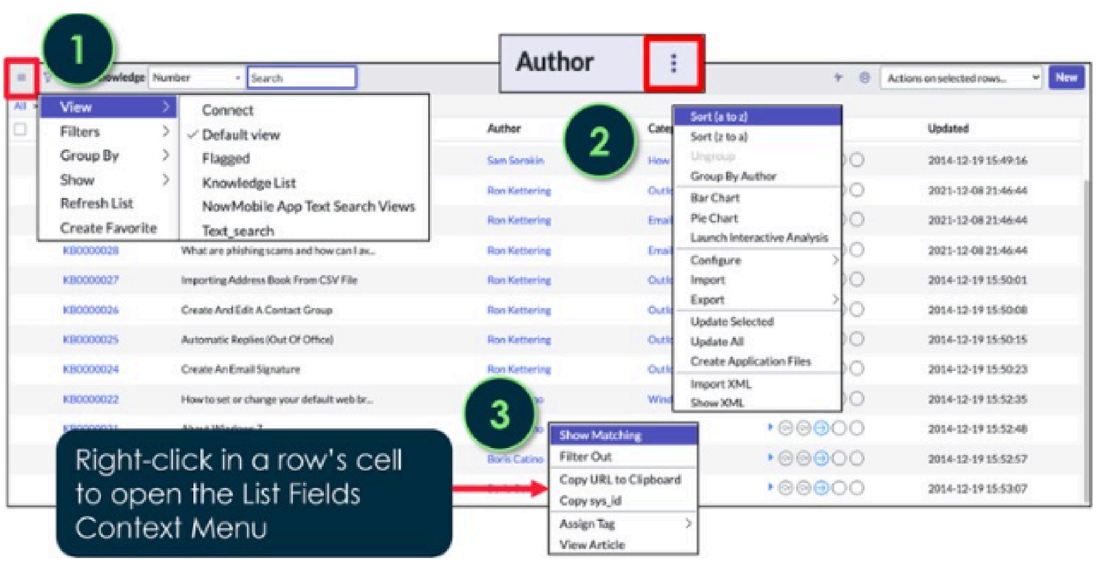
Table_name.list is used to display the list view of a table. Table_name.LIST opens list in new tab

The List Header contain many useful things to perform action on list

1. List Controls
2. Filter Lists
3. Table Search bar
4. Personalize Icon

List Controls

In ServiceNow, **context menus in lists** provide users with quick access to actions that can be performed on list items (records) or the list itself.

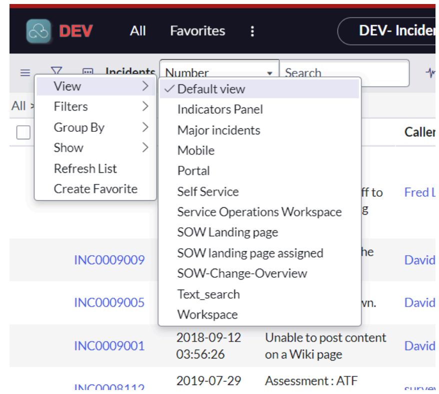


For lists there are three types

1. List Control menu - Has Views, Filters, GroupBy, Refresh List, Create Favorite
2. Column option men - Has Configure, import, Reporting, Sorting
3. List field menu - used to copy sys_id

Views

Views enable users to quickly display the same list or form in multiple ways. System administrators can create views for lists or forms.



You can create view by selecting

Control options menu - configure - List Layout - select the fields using list Collector - Scroll Down to select view - new - enter the view name - save

You can see the created view from

List Control Menu - views

Filters in List

A filter is a set of conditions applied to a table list to isolate a subset of the data.

The three parts of a filter condition are:

1. Field: A choice list based on the table and user access rights. The choice list includes fields on related tables by dot-walking.
2. Operator: A choice list based on the field type.
3. Value: A text entry field or a choice list, depending on the field type.

Wildcard conditions Used in column search row

*value contains

!*value does not contain

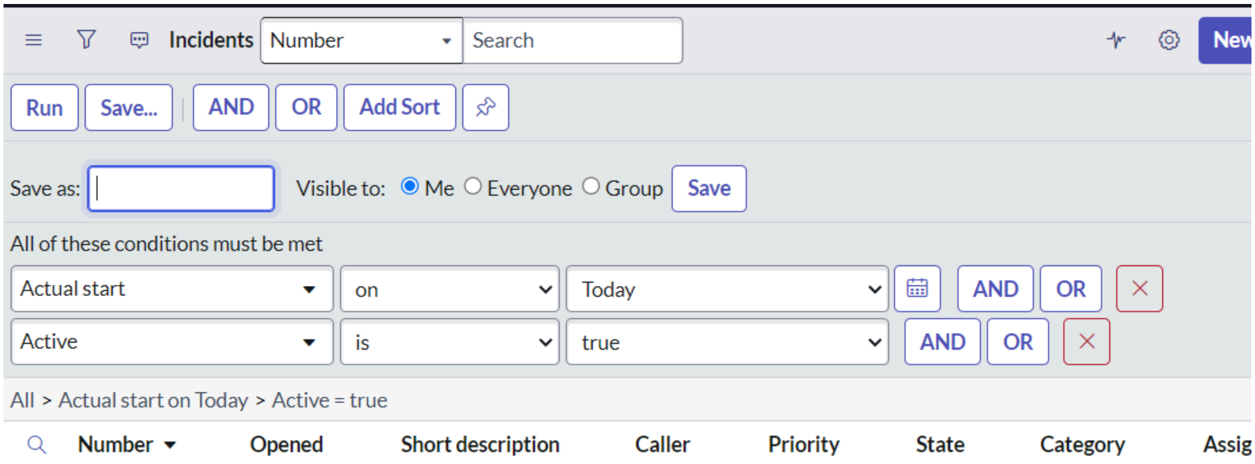
=value equals

!value does not equal

Value % starts with

% value ends with

Add filters to your Favorites by clicking the List Controls icon and selecting Create Favorite



In the classic list, select **Run** to see the results of your filter displayed in the list.

To save a filter, select **Save.** A new field will appear where you can name your filter. After naming the filter, select who it will be visible to, then select the Save button to the right of the name and visible to options.

The new filter will be available by selecting Filters from the list context menu.

Breadcrumbs

Filter conditions applied to the list are summarized in the breadcrumbs, shown in blue letters across the top of the list. Not only do the breadcrumbs provide an "at-a-glance" view of the filter's conditions, but they allow you to modify conditions as necessary.

For example, you can select the greater than sign before a condition to remove that condition, or select a breadcrumb to remove all of the conditions that follow.

Group By - It is used to group the list records based on a field.

Refresh List - Used to refresh list to reflect the recent changes.

List Personalization

- Personalize List modifies the layout of a list for an individual user. It does not affect the platform default.
- Personalization should be used for temporary situations. Global changes will not be reflected in a personalized list

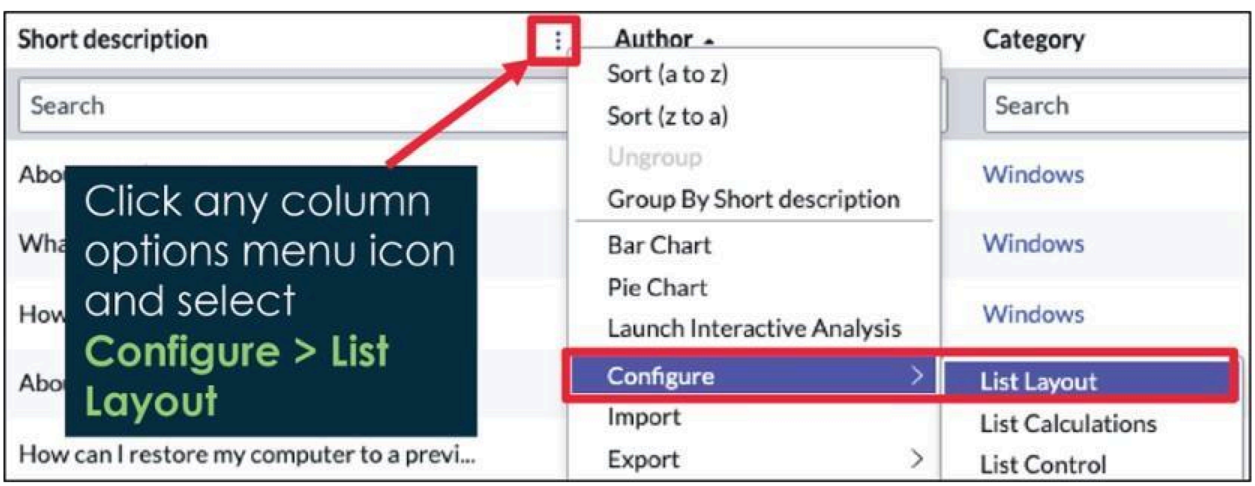
If the system administrator configures a list view a user has personalized, they will not see those newly added default changes until they choose Reset to Column Defaults.

List Layout Configuration

List layout means adding, removing, changing order of the columns or fields on the list view. The configuration can only done by admin, and once configured it would apply to all the users

To configure the List Layout for a table:

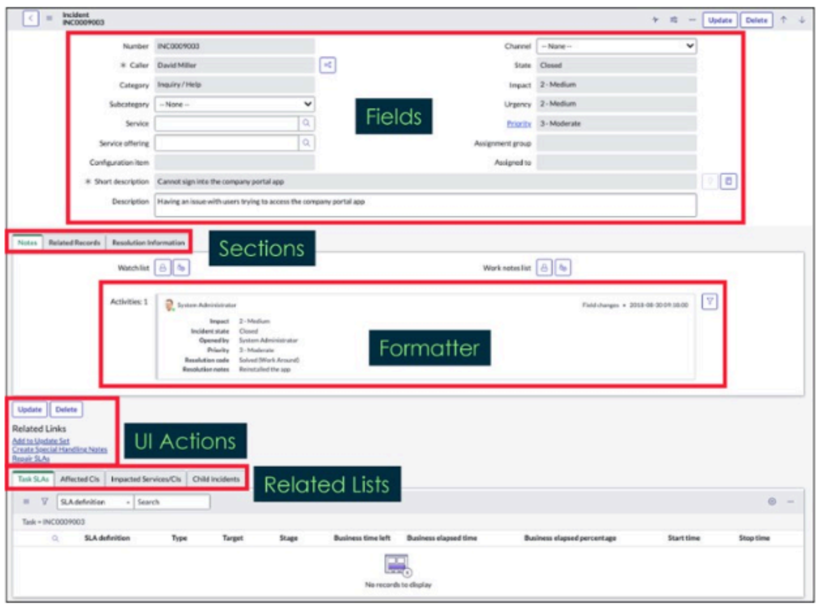
1. Navigate to the list and ensure you are in the correct view
2. Select any column options menu
3. Select Configure > List Layout



1.6 Forms in ServiceNow

Forms are used to display single records in servicenow will all the fields. Users can enter new records , modify records into the form. Forms contain different fields to take in the data according to the use.

The standard Layout



- Sections organize fields into logical groups in a form
- A Formatter is a form element used to display information that is not a field on a form.
- Related Links - UI Actions include the buttons, links, and context menu items on forms and lists. They make the UI more interactive, customized, and specific to user activities.

- Related Lists show records in tables that have a relationship to the current record. For example, the User form features Roles and Groups Related

Difference between Insert and Insert and Stay :

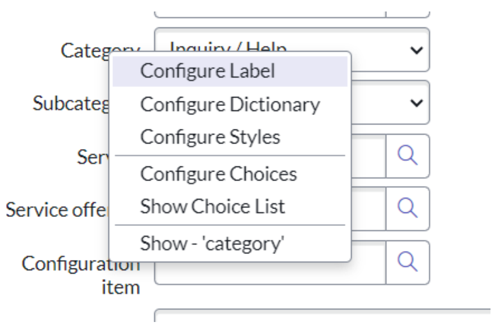
- Insert: Creates a new copy of the current record and returns to the list view or the previous page. The form is closed after the new record is created.
- Insert and Stay: Creates a new copy of the current record but keeps the user on the form view of the newly created record, allowing them to continue editing or review the new record immediately.

Field Types

1. Reference Field: Query that displays records from another table.
2. Document ID : Used to select records from multiple tables.
3. Date/Time: Day and time of day, which can be selected with a calendar widget. Depending on the record, some calendar widgets may not display the time and will only display the date (as seen in the image above).
4. String: Freely populated using letters, numbers, and special characters. For 254 characters or less, the string field will be a single-line text field. Anything 255 characters or over will appear as a multi-line text box.
5. Choice List: Drop-down list of choices that can be configured.
6. True / False - represented using a checkbox

Choice List

They show all the predefined values that a user could select from. We can add , remove , edit choices in choice list by right clicking on the choice field and opening From field menu



Show choice list - add new choice

Configure Dictionary - delete the choice

Configure choices - configure , change the order

Dependent Choice list - The values that appear on the choice list depend on the choice made in another choice list , then it is called a dependent choice list.

Reference Field VS Document ID

Document Id is used to specify records from multiple tables at the same time Multi table reference. While the Reference field can be used to link records from one table only single table reference.

Document Id shows a dropdown menu from which you have to select table first and then also record from table, reference field you choose only record.

Document Id Stores both table name and sys_id , while reference field only stores sys_id

Formatters

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:

 The Activity Stream is an example of a formatter; it displays a list of activities.

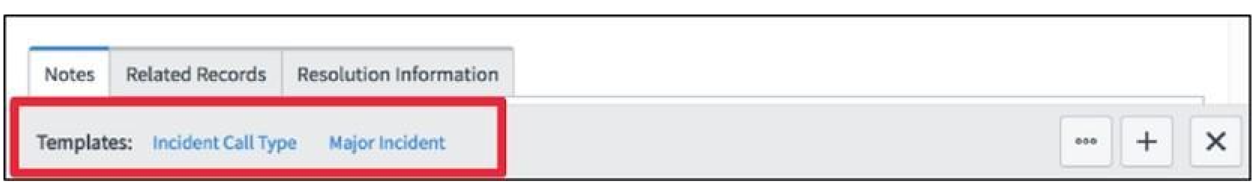
Examples of formatters in the base platform include:

- **Activity formatter:** Displays the list of activities, or history, on a task form. It provides an easy way to track items not saved with a field in the record, for example, journal fields like comments and work notes
- **Process flow formatter:** Displays the different stages in a linear process flow across the top of a record
- **Parent breadcrumbs formatter:** Provides breadcrumbs to show the parent or parents of the current task
- **Approval summarizer formatter:** Displays dynamic summary information about the request being approved
- **CI relations formatter:** Displays on the CI form and allows for the viewing of relationships between the current CI and related CIs

Templates

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

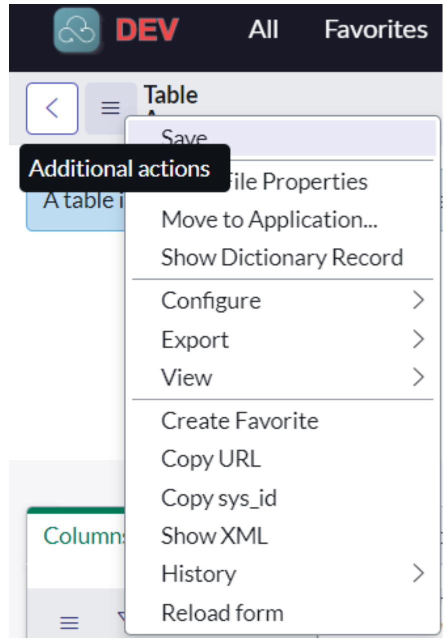
Click the **More options icon (◦◦◦)** from the form header, then Toggle Template Bar to work with templates



Use the template bar at the bottom of the form to manually apply, create, or edit templates.
To use a template, populate the most-used fields for a specific table, save it as a template, and then make the template accessible to users.

They have three Context menus

1. Form control menu / Additional Actions
2. Field context menu
3. Related list menu



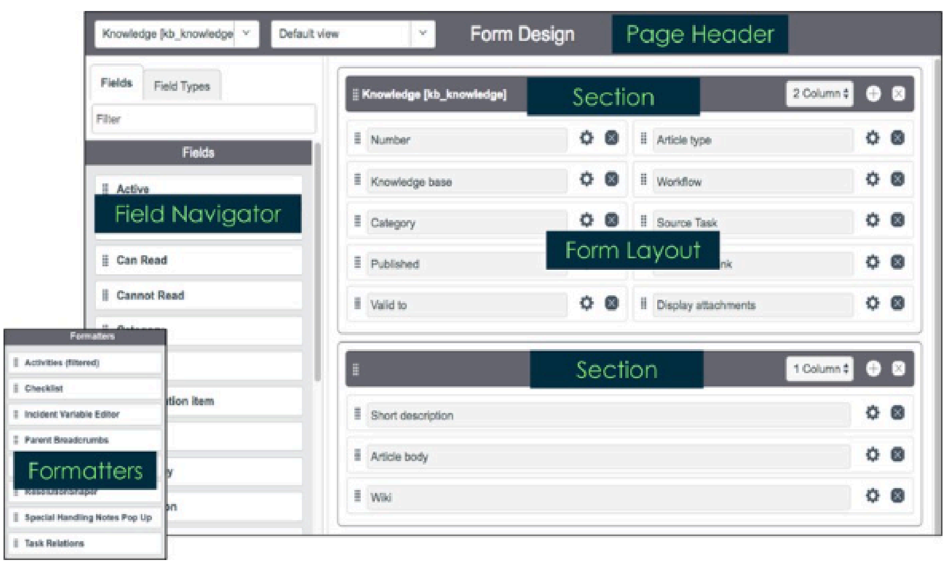
Additional Actions

It has Form views and Configure Options

Configure

1. From Layout
2. Form Design
3. Form Controls

Creating and Editing Form Views with Form Design

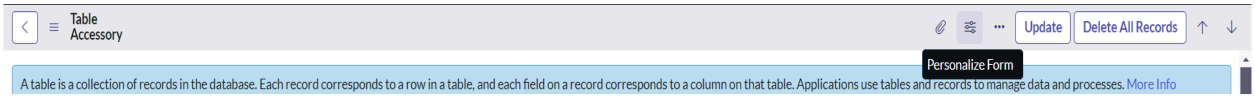


You can select or create a new view from the Page Header. Then we can drag and drop the fields we want in the form from the Field Navigator to the Form Layout.

Form Views can we viewed form additional Actions in the Form Header

Personalization of the form

Personalizing a form will affect only what you see on a form – others will not be affected.



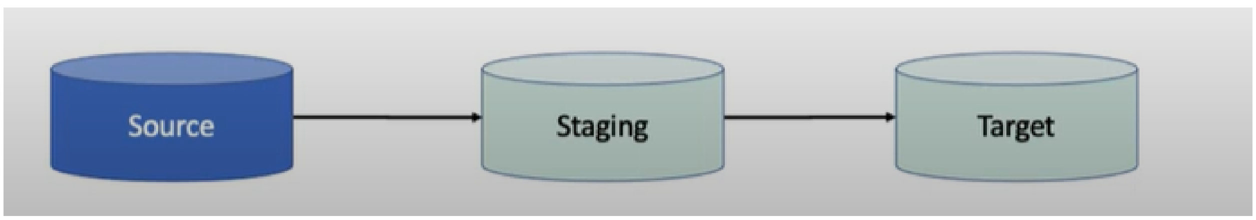
Mandatory fields cannot be hidden. If you navigate away from the form, the next time you go to personalize the form, you must reset your customizations to show fields that you have hidden.

To disable personalization form for the itil role, navigate to sys_properties.list find the property glide.ui.personalize_form.role and set the Value to admin (to specify the role that can access form personalization).

1.8 Introduction to Importing Data Into Servicenow

Importing data into servicenow cannot be done directly , It mainly Involves 3 entities

1. Source - The entity containing the data to be imported into ServiceNow , Servicenow is prepared to work with many so sources like Excel, CSV,JSON,JDBC, etc
2. Staging - A table that ServiceNow created to temporarily store data pulled from source
3. Target - The ServiceNow table into which the data will imported



1.9 Creating a DataSource in ServiceNow

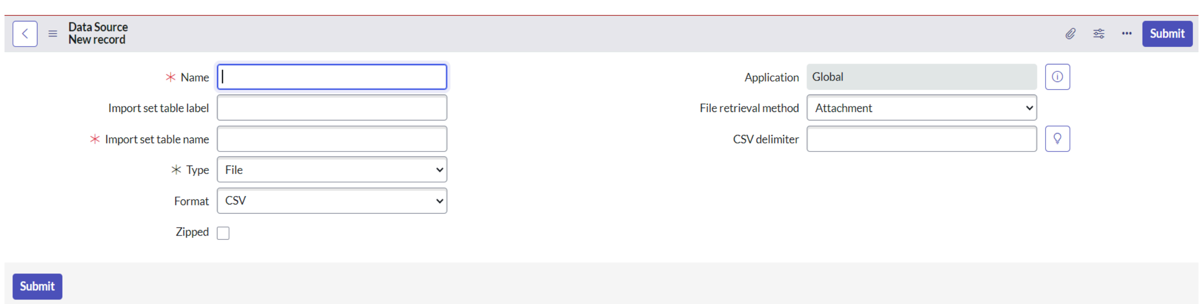
DataSource

All the data Source records are present in sys_data_source table, or you can access by navigation

All - System import Sets - Administration - Data Source

Creating a data Source

From Sys_data_source table select new and fill the from



Then Submit and go to attachments and attach the form you want to give as a data

1.10 Understanding Import Sets In serviceNow

In service now we can not directly load data into tables , Thus we use the Import sets.

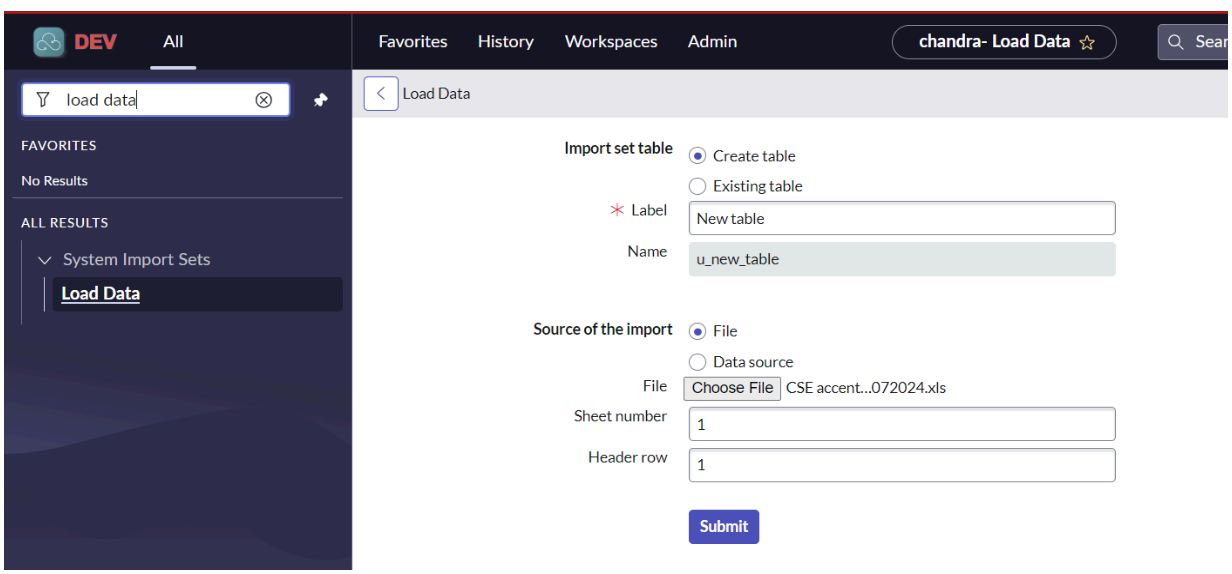
Import Sets provide a mechanism to pull data into ServiceNow. Import Sets store data in Import Set tables. Any user logged in with the admin or import_admin role can manage all aspects of Import Sets.

You have to follow the below 6 steps to import data

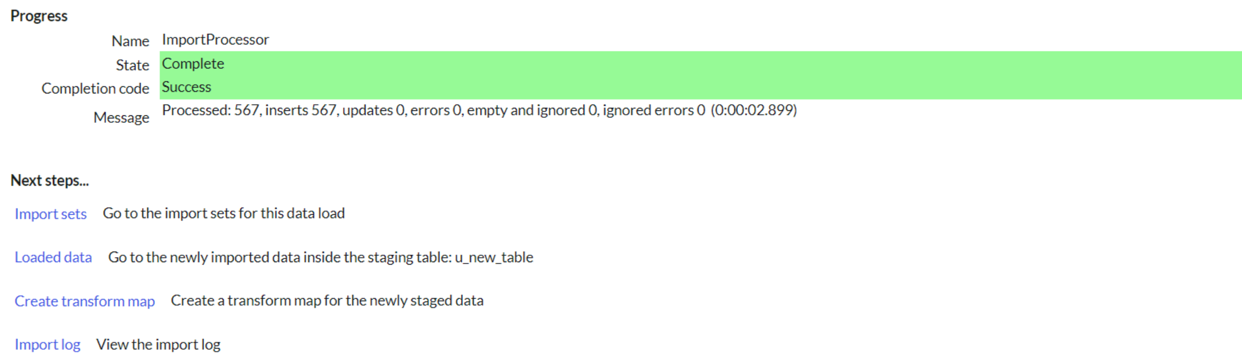
1. Data Source
2. Load Data
3. Import set Table
4. Transform Map
5. Transform

Creating Import Sets:

1. **Data Source**: First, define a data source by specifying the location and format of the incoming data (e.g., CSV, Excel, JDBC).
2. **Import Set Table**: ServiceNow automatically creates an Import Set Table to temporarily hold the imported data.
3. **Load Data**: Use the "Load Data" module to import the data into the Import Set Table.



Upon Submitting the Form , the data will be loaded into the Staging table and progress will be displayed



Progress

Name	ImportProcessor
State	Complete
Completion code	Success
Message	Processed: 567, inserts 567, updates 0, errors 0, empty and ignored 0, ignored errors 0 (0:00:02.899)

Next steps...

Import sets Go to the import sets for this data load

Loaded data Go to the newly imported data inside the staging table: u_new_table

Create transform map Create a transform map for the newly staged data

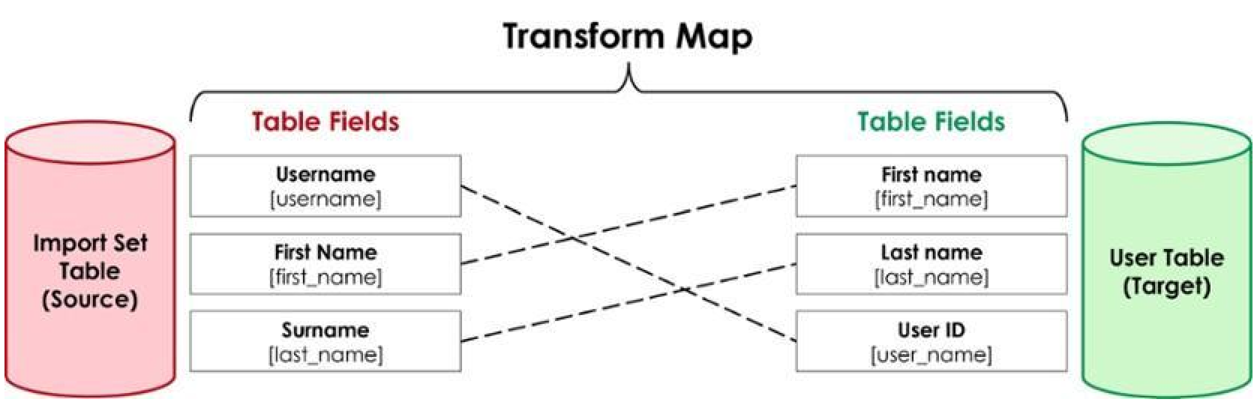
Import log View the import log

Now we can directly go to the Import sets sets of the new created staging table (Import set table) to build Transform Map

1.11 ServiceNow Transform Maps and Transform Fields

Transform Maps provide a guide for moving data from Import Set (staging) tables to “Target” tables. Field mapping provides direct field-to-field data moves.

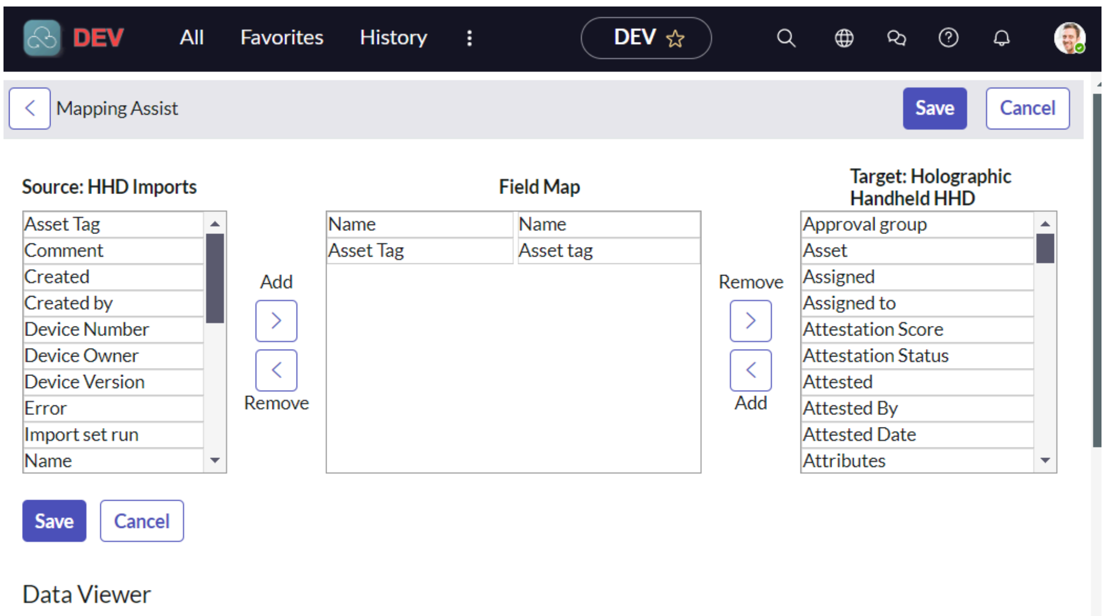
A transform map is a set of field maps that determine the relationships between fields in an import set and fields in an existing ServiceNow table, such as Incidents [incident] or Users [sys_user].



There are two types of mapping done in Transform Map

Automatic Mapping Utility: field names of the Import Set match the name of the fields on the Target table where the data will be transformed. In this case, simply click Auto Map Matching Fields in the related links in the Table Transform Maps.

Mapping Assist Utility: The Mapping Assist utility provides a visually intuitive environment for specifying mapping between Import Set fields and Target table fields. With the Mapping Assist utility, it is possible to map a single source field (field on an Import Set table) to multiple destination fields (fields on a Target table).



When all fields are matched properly, click Transform in the related links to begin transforming data onto the destination table.

Process to import data into servicenow table from excel

All - System import sets - load data - creating import set table - choosing the file - loading data into import set table - open the import set table - go to related links - transform map - Assist mapping - select the Servicenow table - map the fields - save - Transform

The following steps (process) can be completed by any user with the role import_admin or import_set_loader and import_transformer.

you can also use import option in Column options menu for excel and import XML for XML data