

Understanding Document of ServiceNow Platform And Development Fundamentals

1.1 What is ServiceNow

Introduction

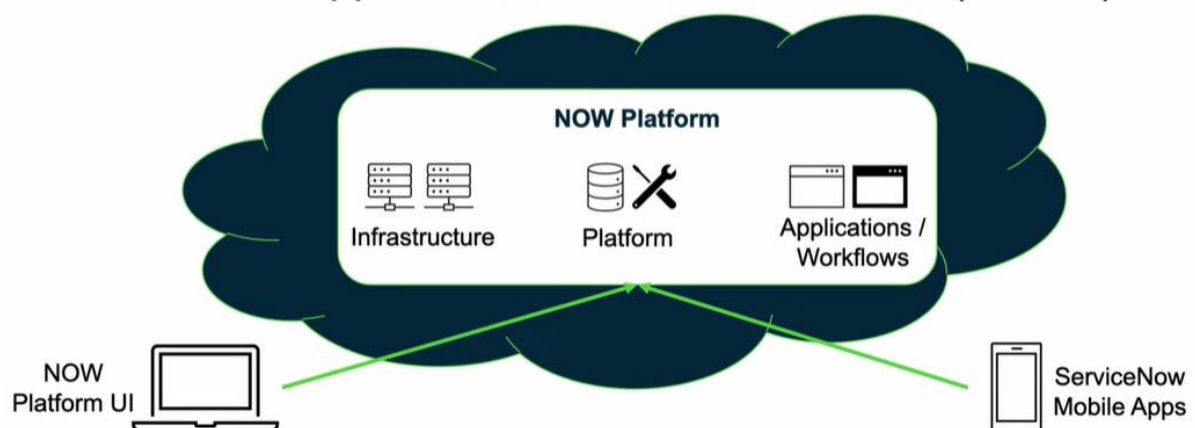
ServiceNow is a software Company based in Santa Clara, California, founded by Fred Luddy in 2003, to solve problems large enterprises face with traditional IT delivery by providing a robust, simple to use Cloud-based environment which business people can use to solve the problems themselves.



The Now Platform from ServiceNow provides a modern, easy-to-use, service management solution in the cloud. It allows your organization to automate manual, repeatable processes, standardize service delivery, and focus on your core business.

Infrastructure

Cloud-based Application Platform as a Service (APaaS)



- **Compute Resources:** ServiceNow's backbone includes datacenters, racks, servers, and more, ensuring it has the muscle to handle complex tasks.
- **Security:** Think of it as having top-notch security guards around your data, certified by trusted organizations to keep everything safe.
- **Service Level Agreements:** ServiceNow doesn't just promise uptime; it delivers with backup systems in place to keep things running smoothly.

- **Backups:** They don't just back up data occasionally; they do it four times a day and maintain six days of daily backups. That's a lot of safety nets!

Platform Overview

- **Unified Data Model:** Picture a single, well-organized filing cabinet where all applications, both out-of-the-box and custom, fit neatly together.
- **Custom Applications:** You can create your own applications and workflows that blend seamlessly with ServiceNow's existing setup.

Application Categories

- **IT Workflows:** 79 tools designed to keep IT running like a well-oiled machine.
 - **Employee Workflows:** 43 applications focused on making employees' lives easier.
 - **Customer Workflows:** 93 tools aimed at enhancing customer interactions and services.
 - **Creator Workflows:** 23 applications for those who want to build and manage their own solutions on the platform.
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2.1 ServiceNow Platform Overview

The Now Platform

Think of ServiceNow as a versatile platform where you can build custom solutions or use pre-built ones. It's like having a blank canvas and a set of high-quality paints to create whatever you need.

Domain Separation

ServiceNow allows you to segment your data and processes into logical domains, much like creating separate departments in an office. Users see only what they need based on their role.

User Interfaces

There are three ways to interact with the Now Platform. Each of the three approaches provides a different interface targeting different devices and purposes. All of these interfaces access the same single system of record and common data model of the Now Platform.

The three Now Platform interfaces are:

- **Now Platform UI:** Ideal for desktop users, accessed via a web browser.
- **ServiceNow Mobile Apps:** Perfect for on-the-go users, with apps tailored for different needs like fulfilling requests or onboarding.
- **Service Portal:** A user-friendly, widget-based interface for easy access to services.

Each interface is designed to cater to different needs, whether for end-users, service agents, or developers, ensuring a versatile and comprehensive user experience



Enterprise Cloud

Unlike many cloud services where multiple companies share the same infrastructure (multi-tenant architecture), ServiceNow gives each client their own dedicated space (multi-instance model). It's like having your own private office rather than a shared cubicle.

Availability & Redundancy

ServiceNow's datacenters work in pairs to ensure that if one fails, the other takes over. This setup includes redundancy at every level—from the servers to the power sources.

Backups & Security

ServiceNow's backup strategy is thorough: 4 full backups weekly and 6 daily differential backups. This means your data is always safe and recoverable. They also employ top-tier security technologies to keep everything secure.

Role-Based Access

User: An individual with access to the ServiceNow platform, each user having a unique login. User records are stored in the `sys_user` table. Permissions and access levels are determined based on the roles assigned to each user.

Role: A set of permissions defining what a user can view and perform within the ServiceNow platform. Roles are assigned to users and are used to manage access controls (ACLs). Records of roles are maintained in the `sys_user_role` table.

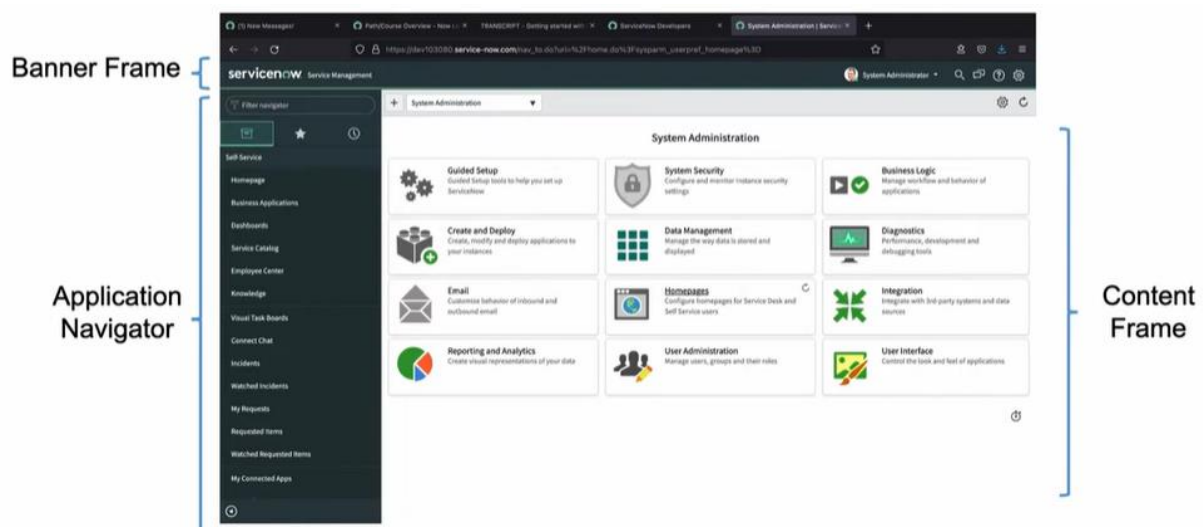
Group: A collection of users with a shared purpose or responsibility, such as a department or team. Groups help manage user permissions and workflows and can have roles assigned to them for streamlined access management. Group information is recorded in the `sys_user_group` table.

User Authentication

When a user attempts to login to an instance, ServiceNow validates their identity and enables access to functions and data based upon their related groups and roles. The platform can support several methods of user authentication including:

1. Local database Authentication
2. External Single Sign-on (SSO)
3. LDAP
4. Multi-Factor Authentication

3.1 ServiceNow User Interface Overview



Main Screen Elements

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

1. Banner Frame : User Menu

The User Menu offers several useful tools:

- **Profile:** Manage your profile details such as your name, phone number, title, email, date format, and time zone.
- **Impersonate User:** Allows you to access the instance as another user. This feature is available to those with admin or impersonator roles.
- **Elevate Roles:** A security feature that enables you to perform high-impact actions. This option is available to System Administrators.
- **Logout:** Sign out of your ServiceNow instance.

Banner Frame: Tools

- **Global Search:** Quickly search the entire instance for records that match your keywords.
- **Connect Chat:** Engage in real-time messaging with ServiceNow's chat tool.
- **Help:** Access contextual help when needed. An icon badge will indicate if help is available. You can also use it to open the User Guide and search through documentation.

Banner Frame: System Settings

We can personalize your experience with these settings:

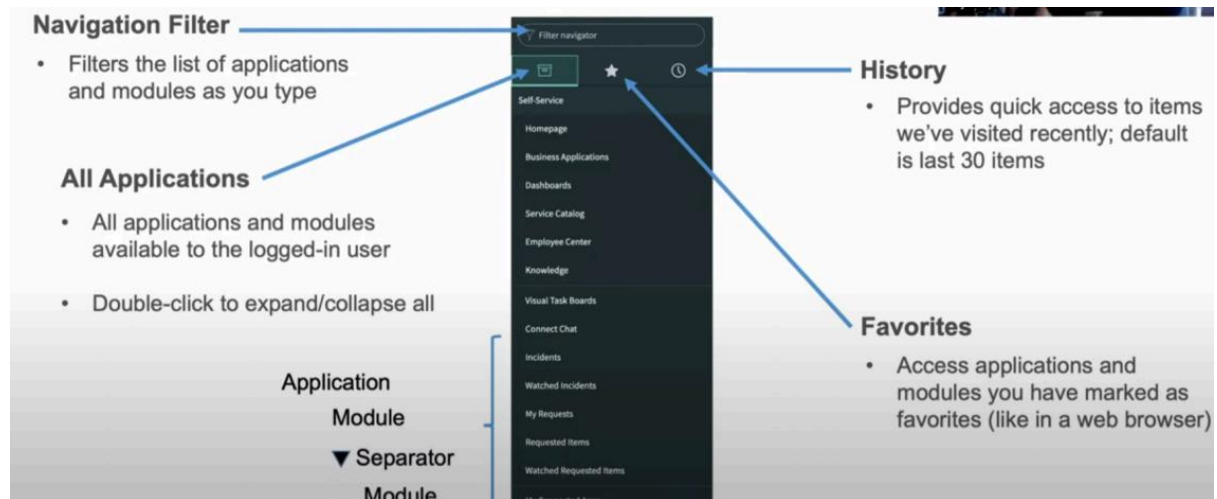
1. **General Settings:** Tweak options like Compact UI, Keyboard shortcuts, Home link, and date/time display.
2. **Theme and Accessibility:** Pick your preferred color scheme and adjust accessibility features.
3. **Forms and Lists:** Decide how forms and related lists load, and control text wrapping in list columns.
4. **Notifications and Developer Tools:** Manage notifications, choose your application and update set, and enable developer tools like the JavaScript Log Viewer.

2. Application Navigator

1. **Log in** to your Personal Developer Instance (PDI).
2. **Explore the Application Navigator:** You'll see three tabs—All Applications, Favourites, and History.
3. **Use the Navigation Filter** to quickly find what you're looking for.
4. **Expand and collapse** different Applications or Sections to see their contents.
5. **Open a Module** to view its content by clicking on it.
6. **Expand or collapse all Applications and Sections** at once by double-clicking the All Applications tab.
7. **Mark favourites:** Click the star next to an Application or Module to save it as a favourite for quick access.
8. **Save filtered lists** as favourites by dragging their breadcrumb into the Favourites list.
9. **Add individual records** to your favourites by dragging them into the Favourites list.
10. **Access your favourites** through the Favourites tab whenever you need them.
11. **Edit your favourites** using the pencil icon to adjust them as needed.
12. **Check out the History tab** to review your recent actions—by default, it shows the last 30 items you accessed.

About the Application Navigator

The Application Navigator on the left side of ServiceNow is your quick access hub for all applications and modules. Pin your most-used items to Favorites for easy access, and keep track of your recent activities with the History tab.



Access Control List (ACL)

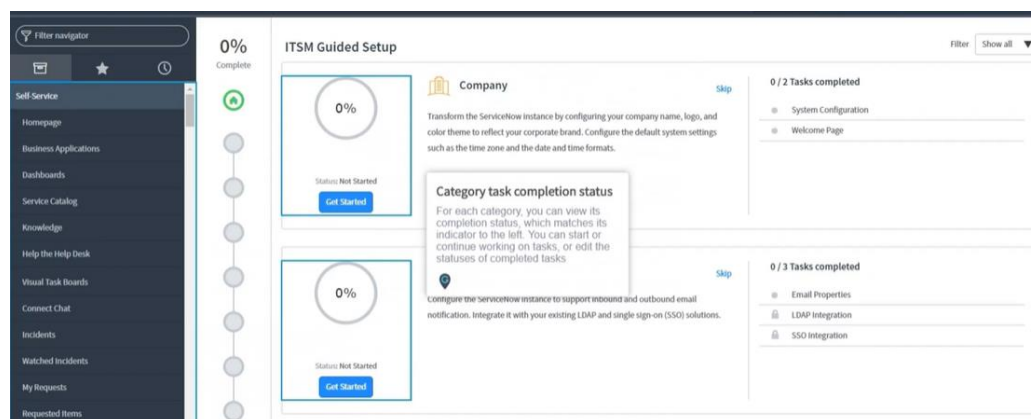
ACLs determine how you can interact with data in ServiceNow, limiting certain operations. These rules are stored in the sys_security_acl table, and you'll need a security admin role to modify them, which involves elevating your role from Admin.

3. Content Frame

The Content Frame is the central area in the ServiceNow interface where you view and interact with the content of the selected application or module. This is where you'll work with forms, lists, dashboards, reports, and other data.

4.1 ServiceNow Branding Overview

Branding in ServiceNow is all about making the platform look and feel like your company. It helps in creating a consistent and recognizable user experience.



Guided Setup

Guided Setup is like having a step-by-step guide to configure various applications and modules. It's divided into categories like ITSM (Incident Management, Service Catalog, etc.) and ITOM (Discovery, Event Management, etc.).

To access Guided Setup, just search for the Guided Setup application in the Application Navigator. You can then choose the ITSM Guided Setup or ITOM Guided Setup module.

- **ITSM Guided Setup** covers categories like Company, Connectivity, Foundation Data, CMDB, Incident Management, Problem Management, Change Management, Service Catalog, Knowledge Management, and more.
- **ITOM Guided Setup** focuses on areas like MID Server, Discovery, Event Management, Operational Intelligence, and Cloud Provisioning and Governance.

Service Portal and UI Builder

ServiceNow also offers tools like Service Portal and UI Builder to help you brand and customize the interface.

- **Service Portal** is a widget-based tool that lets you create intuitive, user-friendly interfaces for the Now Platform.
- **UI Builder** allows you to design functional pages by selecting from a variety of components (like buttons and data visualizations) and layouts.

5.1 ServiceNow Lists and Filters

List Interface Overview

The list interface is where you'll manage and interact with records. It's like having a detailed spreadsheet that you can customize to fit your needs.

- **Title Bar:** Contains tools for customizing views, searching, and paging.
- **List Header:** Displays column names with sorting options.
- **Main Area:** Shows individual records with various management features.

Customization

Personalize your lists by adding or removing columns, applying filters, and saving custom views. This flexibility helps you see the data that's most important to you.

ServiceNow Lists and Filters

Lists in ServiceNow are interfaces that display records from a table in a grid or tabular format, allowing you to view, filter, sort, and interact with multiple records simultaneously. To display a list view of a table, you can use `Table_name.list`. If you want to open the list in a new tab, use `Table_name.LIST`.

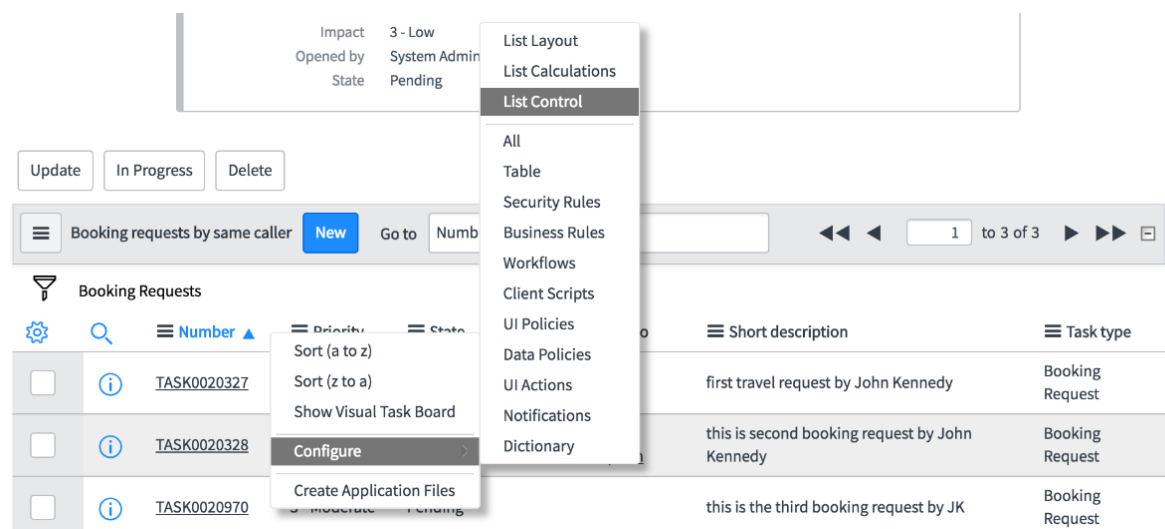
The **List Header** contains several key features:

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

List Controls

In ServiceNow, lists have context menus that provide quick access to actions for records or the list itself. There are three types of list controls:

1. **List Control Menu:** Includes options like Views, Filters, Group By, Refresh List, and Create Favourite.
2. **Column Options Menu:** Offers actions like Configure, Import, Reporting, and Sorting.
3. **List Field Menu:** Allows you to copy the sys_id of a record.



Views allow users to display the same list or form in different ways. System administrators can create custom views for lists or forms by going through:

- **List Control Menu → Configure → List Layout → Select fields → Scroll down → New view → Save.**

To access your created view, navigate to the **List Control Menu** and select **Views**.

The screenshot shows the ServiceNow Service Management console. On the left is a dark sidebar with navigation links. The main area displays a list of incidents. A 'View' dropdown menu is open, showing options like 'Default view', 'Major incidents', 'Mobile', 'Portal', 'Self Service', and 'Workspace'. The incident list has columns for Short description, Caller, Priority, State, Category, Assignment group, Assigned to, and Updated.

Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated
SAP Sales app is not accessible	Carol Coughlin	1 - Critical	In Progress		Service Desk	Beth Anglin	admin
Can't log into SAP from my laptop today	Joe Employee	2 - High	In Progress		(empty)	Fred Luddy	admin
Sales forecast spreadsheet is READ ONLY	Taylor Vreeland	1 - Critical	In Progress		(empty)	ITIL User	admin
Having problems with Sales Tools performance	Luke Wilson	4 - Low	On Hold		(empty)	ITIL User	admin
Need access to sales DB for the West	Joe Employee	1 - Critical	On Hold	Database	(empty)	David Lo	admin
Need Oracle 10GR2 installed	Fred Luddy	4 - Low	Closed	Database	Database	Don Goodliffe	admin
Rain is leaking on main DNS Server	Bow Ruggeri	1 - Critical	In Progress	Hardware	Hardware	ITIL User	admin
Need to add more memory to laptop	Don Goodliffe	1 - Critical	In Progress	Hardware	(empty)	ITIL User	admin
Seem to have an issue with my hard drive...	Rick Berzle	5 - Planning	Closed	Hardware	Hardware	Don Goodliffe	admin

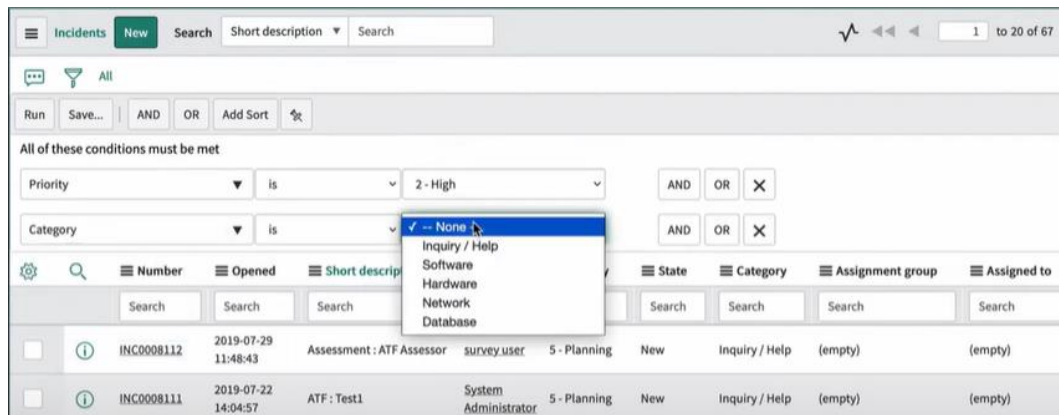
Filters in Lists

A **Filter** isolates a subset of data in a list by applying specific conditions. Filters consist of three parts:

1. **Field:** The column in the table you want to filter.
2. **Operator:** Defines the comparison (e.g., equals, contains).
3. **Value:** The criteria the field is compared against.

You can use **Wildcard Conditions** in the column search row, such as:

- *value (contains)
- !*value (does not contain)
- =value (equals)
- !value (does not equal)
- Value% (starts with)
- %value (ends with)



To save a filter, click **List Controls** → **Create Favorite**. After running your filter, you can save and name it. The filter will then be accessible from the **Filters** option in the list context menu.

Breadcrumbs display applied filter conditions at the top of the list, allowing you to modify or remove conditions easily.

- **Group By:** Groups list records based on a selected field.
- **Refresh List:** Updates the list to reflect recent changes.

List Personalization

- **Personalize List:** Adjusts the list layout for individual users without affecting the global default. Personalization is temporary, and any global changes by the system administrator won't be visible until you reset to the column defaults.



List Layout Configuration

List Layout allows administrators to add, remove, or reorder columns or fields in a list view. This configuration applies to all users and can be accessed by:

1. Navigating to the list and selecting the correct view.
2. Opening any column options menu.
3. Selecting **Configure** → **List Layout**.

Short description	Caller	Priority	State	Category	Assignment group	Assigned to
Search	Search	Sort (a to z) Sort (z to a) Show Visual Task Board Ungroup Group By Priority Bar Chart Pie Chart Launch Interactive Analysis		Search	Search	Search
Issue with a web page on wiki	Fred Luddy	5		Enquiry / Help	Service Desk	ITIL User
Customer didn't receive eFax	Don Goodliffe	5		Software	Database	David Loo
Trouble getting to Oregon mail server	Bud Richman	5		Network	Network	(empty)
Performance problems with wifi	Bertie Luby	5				(empty)
I can't get my weather report	Charlie Whitherspoon	5				Don Goodliffe
Lost connection to the wireless network	Rick Berzle	5				David Loo
Reset my password	Natasha Ingram	5				Luke Wilson
ATF : Test1	System Administrator	5 - Planning	New			(empty)
I need a replacement iPhone, please	Fred Luddy	5 - Planning	In Progress			ITIL User
The USB port on my PC stopped working	Beth Anglin	5 - Planning	Closed			(empty)
Assessment : ATF		5 - Planning	New			(empty)

6.1 Forms in ServiceNow

Forms in ServiceNow display single records, allowing users to create or modify records through various fields tailored to specific needs.

Standard Layout:

- **Sections:** Group fields logically within a form.
- **Formatter:** Displays non-field information, like activity history.
- **Related Links:** UI actions (buttons, links) that enhance interactivity.
- **Related Lists:** Show records related to the current form, like Roles and Groups on a User form.

The screenshot shows a ServiceNow incident form with several sections highlighted in red and labeled with green boxes:

- Fields:** A group of input fields including Number, Caller, Category, Subcategory, Service, Service offering, Configuration item, Short description, and Description.
- Sections:** A section containing a 'Watch list' and a 'Work notes list'.
- Formatter:** A section containing a table of activities.
- UI Actions:** A section containing 'Update' and 'Delete' buttons.
- Related Lists:** A section containing a table of related records.

Insert vs. Insert and Stay:

- **Insert:** Saves a new copy of the record and exits the form.
- **Insert and Stay:** Saves a new copy but keeps the form open for further editing.

Field Types:

1. **Reference Field:** Links to records from another table.
2. **Document ID:** Selects records from multiple tables.
3. **Date/Time:** Choose dates/times, often with a calendar widget.
4. **String:** Text fields for letters, numbers, and special characters.
5. **Choice List:** Dropdown menu with predefined options.
6. **True/False:** Represented by a checkbox.

Choice Lists:

- **Show Choice List:** Add new choices.
- **Configure Dictionary:** Delete choices.
- **Configure Choices:** Reorder or configure the list.
- **Dependent Choice List:** Choices depend on another list's selection.

Reference Field vs. Document ID:

- **Reference Field:** Links to records from a single table.
- **Document ID:** Links to records from multiple tables, storing both table name and sys_id.

Formatters:

- Display non-field information, like an **Activity Stream** or **Process Flow**.
- Examples include **Activity Formatter**, **Approval Summarizer**, and **CI Relations Formatter**.

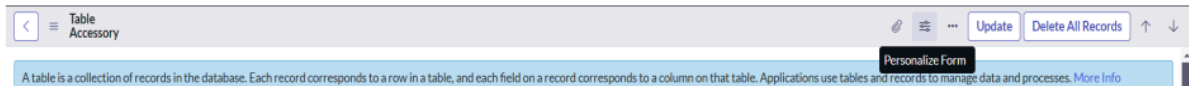
Templates:

- Automate form field population to simplify creating new records.
- Access via the **More Options** icon (⋮) and the **Template Bar**.

- Templates can be applied, created, or edited for easy reuse.

Form Customization:

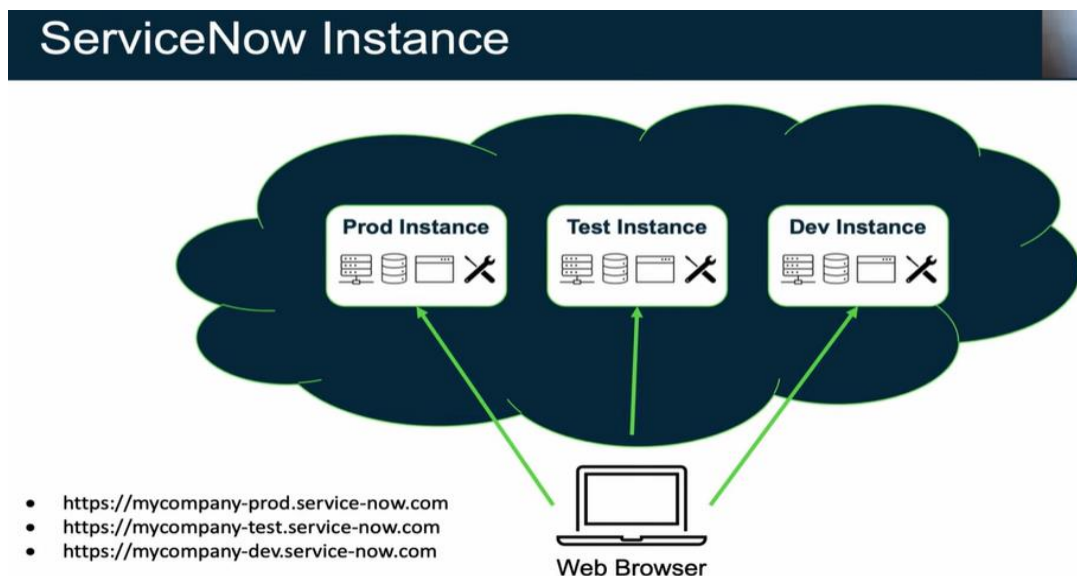
- **Form Views:** Customize the layout by dragging fields in **Form Design**.
- **Personalization:** Adjusts the form layout for individual users without affecting others. Mandatory fields cannot be hidden. Admins can restrict personalization access by setting the `glide.ui.personalize_form.role` property to admin.



7.1 A Hands-on ServiceNow Tool Demo

In ServiceNow, an *instance* refers to a unique implementation of the platform tailored to the needs of a specific organization. Each instance is isolated, allowing for customized configurations and setups according to organizational requirements.

- **Single Instance per Organization:** Typically, each organization operates with a single instance.



- **Shared Access:** Employees share access within this instance.
- **Customization:** Organizations can customize and configure their instances as needed.
- **Development and Production:** Organizations typically have separate instances for development and production environments.

Types of Instances in an Organization:

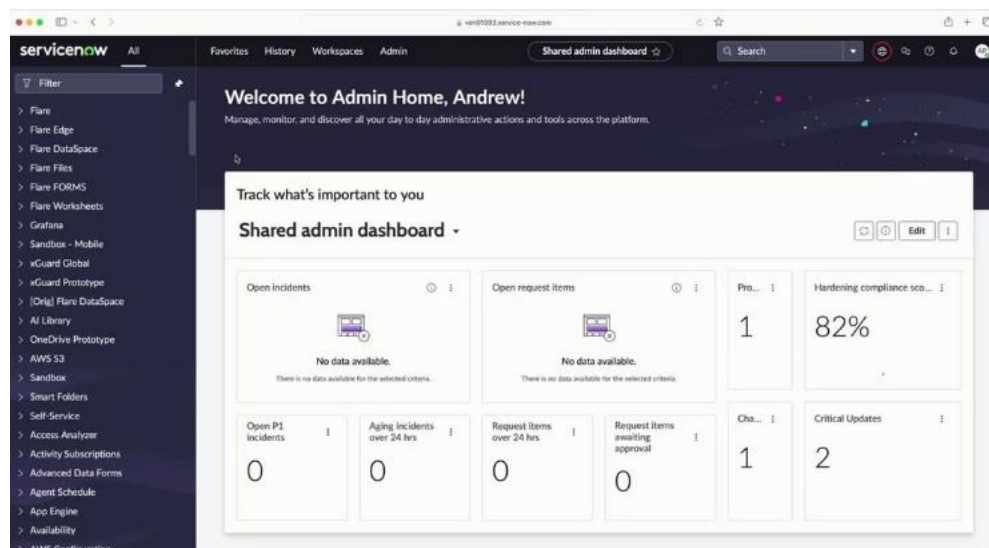
1. **Production:** Used by employees for daily tasks.
2. **Non-Production:** Includes environments for development, testing, and quality assurance.

Each customer receives at least two instances: a **production instance** and a **non-production instance** (also known as sub-production). Additional non-production instances can be used for tasks like User Acceptance Testing (UAT), development, or quality assurance. Each instance has a unique URL, like <https://<instance name>.service-now.com>.

Personal Developer Instance (PDI): A PDI is a free, personal instance provided by ServiceNow for developers to experiment, learn, and build applications. Developers can access their PDI by logging into the ServiceNow Developer Platform.

Next Experience and Navigation: The *Next Experience* interface is the primary way users interact with ServiceNow applications and information. The navigation bar includes:

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



User Menu:

- **Profile:** View the current user's profile.
- **Impersonate User:** Temporarily assume another user's identity.
- **Elevate Roles:** Allows admins to elevate their role to security_admin.
- **Preferences:** Customize your instance settings, such as themes and display options.

Application Scope Picker: The globe icon allows developers and administrators to switch between different application scopes within ServiceNow.

History: A list of recently viewed items and records, making it easy to navigate back to previously accessed content.

Favorites: Quickly access frequently used items like records, lists, or reports by saving them to your favorites.

Workspace: A specialized interface designed to provide a streamlined experience for specific tasks or roles, such as the *Service Operations Workspace* or *CMDB Workspace*.

Application Navigator: Located on the left side of the interface, the Application Navigator allows users to quickly access different applications, modules, and functionalities within the platform. Custom applications can be developed to meet specific organizational needs, and additional modules can be accessed via the ServiceNow Store.

ServiceNow Store: An online marketplace where users can discover, purchase, and download a variety of applications and integrations built on the ServiceNow platform. These apps and integrations help extend the functionality of ServiceNow to better meet organizational needs.

ServiceNow Certifications and Roles: There are five main certifications or roles in ServiceNow:

1. **System Administrator**
2. **Developer**
3. **Implementer**
4. **Architect**
5. **Application Specialist**

Becoming an *Implementer* equips you with the skills to integrate various applications and plugins into ServiceNow.

Knowledge Management: The Knowledge Management application enables the sharing and viewing of information through articles. It allows users to create, categorize, review, approve, and browse important information in a centralized location shared across the organization. Knowledge content resides within a Knowledge Base (KB), managed by Knowledge Managers. Administrators can create multiple Knowledge Bases, assigning specific users access through *User Criteria*, which define who can create, read, edit, and retire knowledge articles.



ServiceNow Database: All applications and features in ServiceNow are stored as records in a table, each with a unique `sys_id`. Key tables include:

- **sys_db_object:** Stores information about all tables in ServiceNow.
- **sys_dictionary:** Stores information about all fields in the tables.
- **sys_documentation:** Stores all field labels.

CMDB (Configuration Management Database): The CMDB is a centralized repository that stores information about all Configuration Items (CIs) required to provide IT services. It's essential for effectively managing the IT infrastructure of an organization.

8.1 Introduction to Importing Data Into ServiceNow

Creating a Data Source

To start importing data into ServiceNow, first, set up a data source. This is where ServiceNow pulls the data from. Data sources can include files (like Excel or CSV), databases, LDAP, REST, or custom scripts. The data source connects ServiceNow to your existing data, setting the stage for the import process.

Understanding Import Sets

Once the data source is established, ServiceNow uses Import Sets as an intermediary step. An Import Set Table is automatically created to temporarily hold the data before it's processed. This staging table helps improve import performance and makes it easier to map and transform data fields.

Creating a Transform Map & Field Maps

With the data staged in Import Sets, the next step is to create a Transform Map. This map defines how data from the Import Set Table should be transferred into the Target table. Field Maps within the Transform Map specify the detailed mapping of fields between the Import Set and the Target table. This process ensures that data is accurately transformed and loaded into the correct fields in ServiceNow.

Source, Staging, Target

Source: The initial location of your data, which could be files, databases, or other data sources.

Staging: The Import Set Table automatically created by ServiceNow to temporarily store and prepare data for transformation.

Target: The final destination in ServiceNow where the data will be loaded. This could be an out-of-box ServiceNow table or a custom table created for your specific needs.



9.1 Creating a Data Source in ServiceNow

Data Source Overview: All data source records in ServiceNow are stored in the `sys_data_source` table. You can access them by navigating through: **All > System Import Sets > Administration > Data Source**.

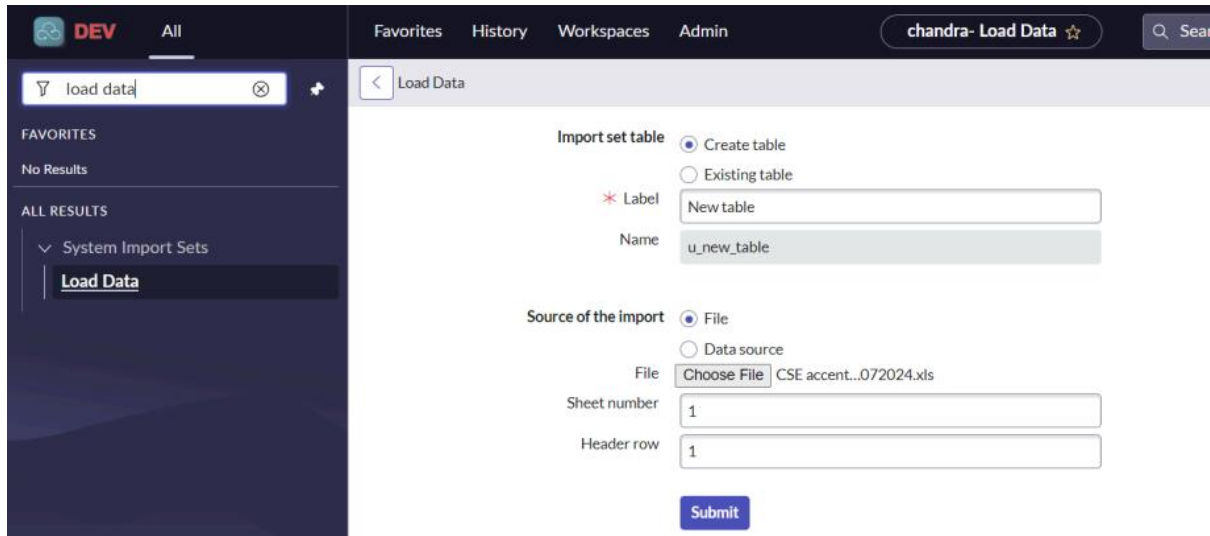
A screenshot of the ServiceNow 'Data Source' form. The form is titled 'Data Source' and 'User Feeds'. It contains several input fields and dropdown menus. The 'Name' field is 'User Feeds'. The 'Import set table label' is 'User feeds'. The 'Import set table name' is 'x_1136210_new_ye_0_user_feeds'. The 'Type' dropdown is set to 'File'. The 'Format' dropdown is set to 'Excel (.xlsx/.xls)'. The 'Zipped' checkbox is unchecked. The 'Sheet number' field is '0'. The 'Header row' field is '0'. On the right side, the 'Application' dropdown is set to 'New Year Countdown'. The 'File retrieval method' dropdown is set to 'Attachment'. At the top right, there are 'Update' and 'Delete' buttons.

Steps to Create a Data Source:

1. Go to the `sys_data_source` table.
 2. Click **New** to create a new data source.
 3. Fill out the form with the necessary details.
 4. Submit the form, then attach the file or form you want to use as the data source.
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10.1 Understanding Import Sets in ServiceNow

In ServiceNow, data cannot be directly loaded into tables; instead, we use Import Sets. Import Sets offer a way to bring data into ServiceNow, temporarily storing it in Import Set tables. Users with the admin or import_admin roles can manage Import Sets entirely.



The screenshot shows the ServiceNow 'Load Data' form. The left sidebar has a search bar with 'load data' and a list of results under 'System Import Sets' with 'Load Data' selected. The main form area has a title bar 'Load Data' and a user profile 'chandra- Load Data'. The form fields are: 'Import set table' with radio buttons for 'Create table' (selected) and 'Existing table'; a 'Label' field with 'New table'; a 'Name' field with 'u_new_table'; 'Source of the import' with radio buttons for 'File' (selected) and 'Data source'; a 'File' section with a 'Choose File' button and the filename 'CSE accent...072024.xls'; a 'Sheet number' field with '1'; and a 'Header row' field with '1'. A 'Submit' button is at the bottom.

6 Steps to Import Data:

1. **Data Source:** Define the source by specifying where the data is coming from (e.g., CSV, Excel, JDBC).
2. **Load Data:** Use the "Load Data" module to import data into the Import Set Table. Upon submitting the form, the data loads into a staging table, and the progress is displayed.
3. **Import Set Table:** ServiceNow automatically creates an Import Set Table to hold the data temporarily.
4. **Transform Map:** Build a Transform Map to guide how data moves from the staging table to the target table.
5. **Transform:** Execute the Transform to move data from the Import Set Table to the target 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

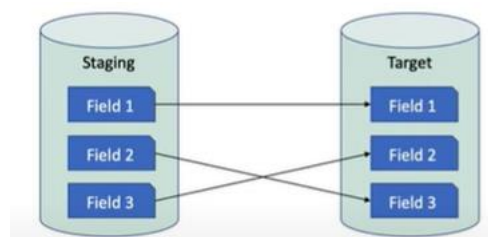
[Create transform map](#) Create a transform map for the newly staged data

[Import log](#) View the import log

11.1 ServiceNow Transform Maps and Transform Fields

Transform Maps Overview: Transform Maps guide how data moves from Import Set (staging) tables to the final destination tables in ServiceNow. They use field maps to determine relationships between fields in an Import Set and fields in a target ServiceNow table (e.g., incident or sys_user).

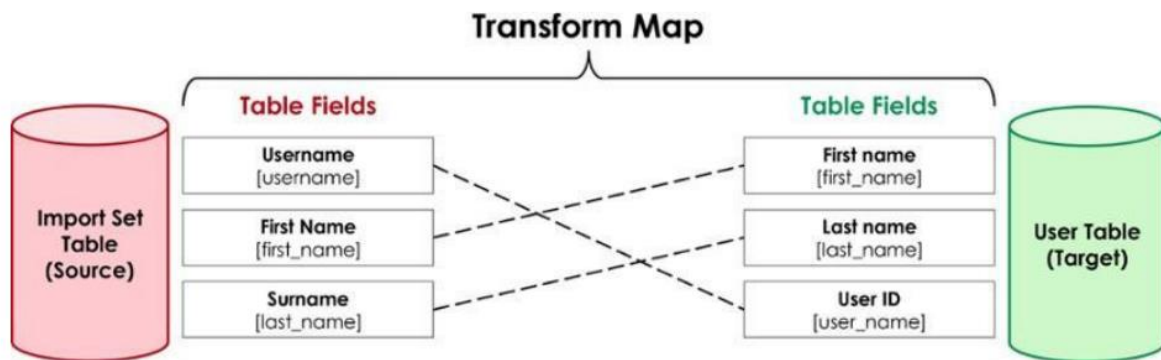
Types of Field Mapping in Transform Maps:



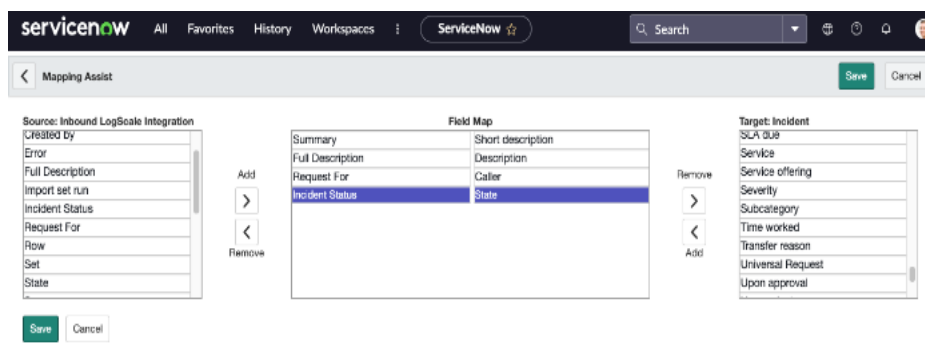
- **Automatic Mapping Utility:** If the field names in the Import Set match the target table fields, click **Auto Map Matching Fields** under Related Links.
- **Mapping Assist Utility:** This provides a visual interface to map Import Set fields to Target table fields. You can map a single source field to multiple destination fields if needed.

Steps to Import Data into ServiceNow from an Excel File:

1. **Navigation:** All > System Import Sets > Load Data.
2. **Create Import Set Table:** Select the file, load data into the Import Set Table, and review progress.
3. **Transform Map:** Open the Import Set Table, go to Related Links, and create a Transform Map.
4. **Field Mapping:** Use Mapping Assist to map the fields, save the map, and then transform the data.



User Roles Required: Roles such as import_admin, import_set_loader, and import_transformer are needed to complete this process.



12.1 ServiceNow Incident Management and Task Administration

Tasks in ServiceNow: A task represents any work that needs to be done. In ServiceNow, each task is stored as a record in the Task table.

Common Tasks:

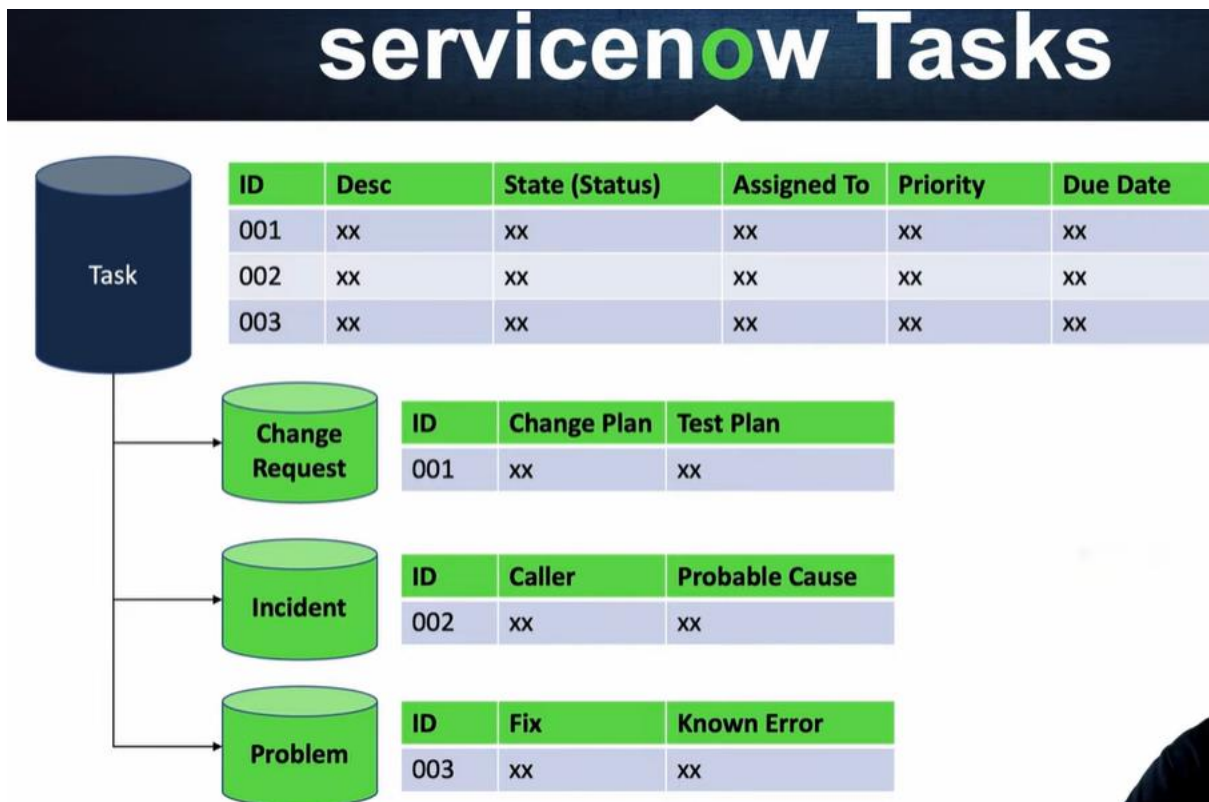
1. **Change Request**
2. **Incident**
3. **Problem**

These tasks are children of the Task table, meaning they inherit its properties but also have specific attributes.

Administering Task Management:

- **Assignment Rules:** Automatically assign tasks to the best-suited users or groups.
- **Service Level Agreements (SLAs):** Ensure tasks are completed within the specified time.
- **Inactivity Monitors:** Track tasks to ensure they are being actively worked on.

- **Workflows:** Define the process for task execution.



Creating Assignment Rules:

1. **Navigation:** All > System Policy > Rules > Assignment.
2. **Create Rule:** Click **New**, select the Table, set conditions, assign to a User or Group, and save.

Assignment Lookup Rules: These apply only to Incident tasks and are less powerful than regular Assignment Rules.

Resolving Tasks: Users can view their assigned tasks in ServiceNow under **Service Desk Navigation > My Groups Work** or **My Work**.

Task Collaboration and User Presence: ServiceNow allows multiple stakeholders to view and update records simultaneously through **User Presence**.

- **Task Collaboration:** This allows multiple users or stakeholders to collaborate on tasks, updating and contributing to the task's progress in real time. Collaboration tools, such as comments, activity streams, and visual task boards, make it easier for team members to stay aligned and efficiently manage tasks.
- **User Presence:** User Presence is a feature that shows who is currently viewing or editing a record, enabling multiple users to work on the same task simultaneously. It helps avoid conflicts and ensures that team members are aware of each other's actions, promoting transparency and coordination.

servicenow Tasks

Task Collaboration

User Presence allows multiple stakeholders to view and update a record simultaneously

The **Active Viewers Icon** will display on the header bar when another user is viewing the record at the same time.



The **Real-time Editing (Pulse) Icon** will display beside a field that has been changed by another user.



Visual Task Boards (VTBs): VTBs offer an interactive, graphical way to manage work in ServiceNow. They can be used to create to-do lists or collaborate with team members in real time.

Creating a VTB:

1. From a list view, select records, choose **Actions on selected rows**, and add them to the Visual Task Board.
2. You can also show a VTB from a list view by selecting **Column Options** and then **Show Visual Task Board**.

VTB Components:

- **Cards:** Represent individual records.
- **Lanes:** Represent the grouping mechanism used in the VTB.

Types of VTBs:

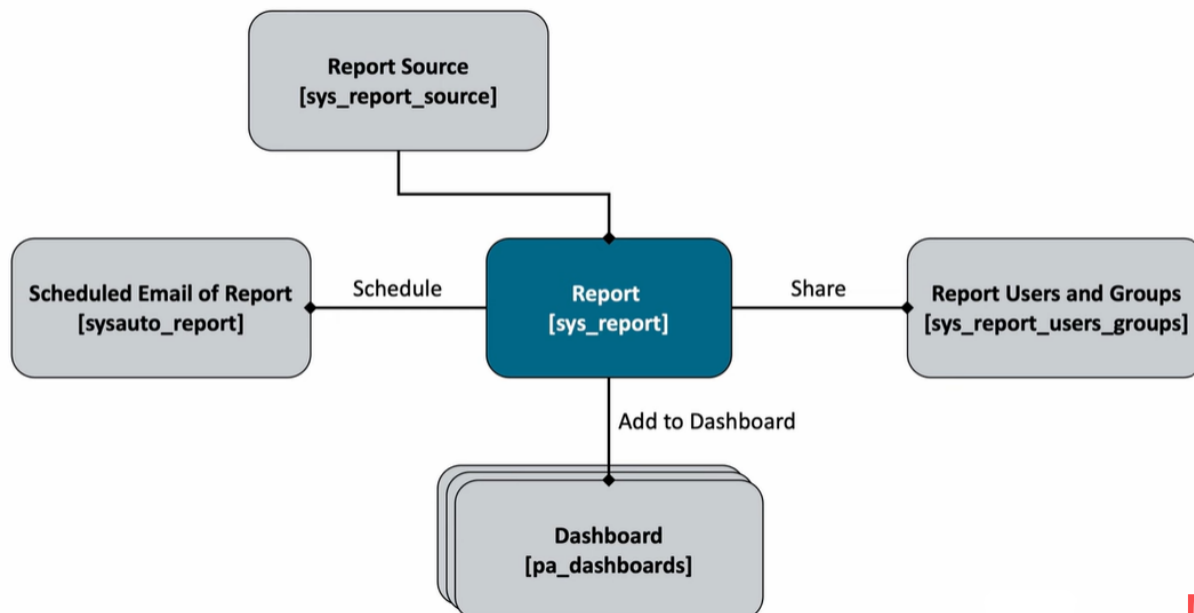
1. **Guided/Data-Driven:** Created from a list using a predefined set of values as lanes.
2. **Freeform:** Used for personalized work management, not created from a list.

Incidents Short description Search										
Actions on selected rows...										
Number	Opened	Short description	Caller	Priority	State	Category	Assignment group	Assigned to	Updated	Updated by
INC00010112	2019-07-29 11:48:43	Assessment : ATF Assessor	survey user	5 - Planning	New	Inquiry / Help	(empty)	(empty)	2022-05-06 13:00:47	admin
INC00010111	2019-07-22 14:04:57	ATF : Test1	System Administrator	5 - Planning	New	Inquiry / Help	(empty)	(empty)	2019-07-22 14:05:48	admin
INC00000050	2018-03-29 14:58:24	Can't access Exchange server - is it down?	Jerrold Bennett	1 - Critical	In Progress	Hardware	Hardware	Beth Anglin	2018-04-19 12:49:40	admin
INC00000046	2018-03-29 15:04:15	Can't access SFA software	Bud Richman	3 - Moderate	New	Software	Software	(empty)	2018-03-28 15:37:27	glidemai
INC00000019	2018-01-06 15:44:39	Can't launch 64-bit Windows 7 virtual machine	Fred Luddy	2 - High	In Progress	Software	(empty)	Bud Richman	2018-04-19 12:46:13	admin
INC00000044	2018-01-19 16:47:08	Can't log into SAP from my laptop today	Joe Employee	2 - High	In Progress	(empty)	(empty)	Fred Luddy	2018-04-19 12:52:03	admin
INC00000001	2018-01-17 15:09:51	Can't read email	Fred Luddy	1 - Critical	Closed	Network	Service Desk	Charlie Whitherspoon	2018-04-19 13:16:07	admin
INC00009003	2018-08-30 12:17:42	Cannot sign into the company portal app	David Miller	3 - Moderate	Closed	Inquiry / Help	(empty)	(empty)	2018-12-12 23:39:53	admin
INC00000005	2018-01-13 15:06:52	CPU load high for over 10 minutes	Alejandro Mascall	1 - Critical	Closed	Hardware	Hardware	Bud Richman	2018-04-20 13:27:12	system
INC00000012	2018-01-02 15:07:00	Customer didn't receive eFax	Don Goodliffe	5 - Planning	Closed	Software	Database	David Loo	2018-04-19 12:56:12	admin
INC00009004	2018-09-01 06:13:30	Defect tracking tool is down.	David Miller	3 - Moderate	Closed	Software	(empty)	(empty)	2021-01-15 21:47:08	system
INC00000004	2017-12-31 12:25:29	Does not look like a backup occurred last night.	Rick Berzie	1 - Critical	Closed	Software	Software	David Loo	2018-04-19 12:53:47	admin
INC00000013	2018-01-29 15:15:58	EMAIL is slow when an attachment is involved	Joe Employee	1 - Critical	Closed	Inquiry / Help	Software	David Loo	2018-04-19 12:54:36	admin
INC00000032	2018-01-09 16:19:36	EMAIL Server Down Again	Joe Employee	5 - Planning	Closed	Inquiry / Help	Hardware	David Loo	2018-04-19 13:15:54	admin
INC00009005	2018-08-31 21:35:21	Email server is down.	David Miller	1 - Critical	New	Software	(empty)	(empty)	2018-12-12 23:18:55	admin
INC00007001	2018-10-16 22:47:10	Employee payroll application server is down.	David Miller	1 - Critical	New	Hardware	Openspace	(empty)	2021-01-15 21:45:36	system
INC00000033	2018-01-03 14:22:52	File Server is 80% full - Needs upgrade	David Loo	1 - Critical	Closed	Inquiry / Help	Hardware	Don Goodliffe	2018-04-19 13:15:24	admin
INC00000004	2018-01-24 14:49:22	Forgot email password	Fred Luddy	1 - Critical	Closed	Inquiry / Help	Service Desk	Bud Richman	2018-04-19 13:16:24	admin
INC00000006	2018-01-17 15:08:05	Hangs when trying to print VISIO document	Joe Employee	1 - Critical	Closed	Software	(empty)	Howard Johnson	2018-04-19 13:15:59	admin
INC00000048	2015-11-02 14:05:36	Having problems with Sales Tools performance	Luke Wilson	4 - Low	On Hold	(empty)	(empty)	Rosie Mathews (Resource Mgr)	2018-04-06 10:05:00	troymcco
INC00000017	2015-08-12 16:41:00	How do I create a sub-folder	Joe Employee	1 - Critical	On Hold	Inquiry / Help	Service Desk	Fred Luddy	2015-11-24 07:47:36	admin
INC00000029	2018-01-17 16:00:44	I can't get my weather report	Charlie Whitherspoon	5 - Planning	In Progress	Inquiry / Help	Service Desk	Don Goodliffe	2018-04-19 12:50:57	admin
INC00000015	2018-01-03 15:38:46	I can't launch my VPN client since the last software update	Fred Luddy	1 - Critical	In Progress	Software	Software	Don Goodliffe	2018-04-19 12:50:33	admin

You may also show a VTB from a list view, by breaking up data for whichever column the VTB is created from. All you have to do is select Column options (from any column) and select Show Visual Task Board.

13.1 ServiceNow Reporting

Reports in ServiceNow allow you to visualize data in various formats, such as bar charts, pie charts, and pivot tables. Reports can be run manually or scheduled, and users with the necessary access can interact with and manipulate the underlying data.



Report Creation:

1. **Navigation:** All > Reports > Create Report.
2. **Direct Report Generation:** Use column context menus in any list to generate a report directly from the data.

Creating Reports in Studio:

1. **Navigation:** All > System Applications > Studio > Select Application.
2. **Process:** File > Create New > Report > Choose Data > Configure > Style.

The 'Data' tab is selected and highlighted with a red box. The breadcrumb navigation shows 'Data > Type > Configure > Style'. The form contains the following fields:

- * Report name:** A text input field containing 'Active Change Requests'.
- * Source type:** A dropdown menu with 'Table' selected.
- * Table:** A dropdown menu with 'Change Request [change_request]' selected.
- Description:** A text area with the message: 'There is no description for this table. To add a description, please contact your admin.'

The 'Type' tab is selected and highlighted with a red box. The breadcrumb navigation shows 'Data > Type > Configure > Style'. The interface includes a search bar labeled 'Filter the visualizations'. Below it, a section titled 'Other' states 'There are even more chart types to choose from.' and displays a grid of various chart icons, including bar charts, line graphs, pie charts, and funnel charts.

The 'Configure' tab is selected and highlighted with a red box. The breadcrumb navigation shows 'Data > Type > Configure > Style'. The form includes the following elements:

- Choose columns:** A button with an information icon.
- Group by:** A dropdown menu with 'Active' selected.
- Additional group by:** A button with an information icon.

The 'Style' tab is selected and highlighted with a red box. The breadcrumb navigation shows 'Data > Type > Configure > Style'. The form includes the following elements:

- Title:** A button.
- Show chart title:** A dropdown menu with 'Report only' selected.
- Chart title:** A text input field.
- Size of the chart title:** A text input field with '16' and a unit 'px'.
- Chart title color:** A color picker with 'Black' selected and a search icon.
- Title horizontal alignment:** A dropdown menu with 'Center' selected.

Scheduling Reports:

1. Open the report you want to schedule.
2. Click the **Sharing** icon, select **Schedule**, and fill out the necessary information.

➔ All - Reports - view / run - open report - sharing icon - schedule - fill the form

Scheduled Email of Report
New record

Name: Scheduled execution of API Usage (last 30 Days)

Report: API Usage (Last 30 Days)

Users: [Add User] [Add User]

Groups: [Add Group]

Email addresses: @servicenow.com

Application: Global

Active: ☒

Run: Daily

Day: Sunday

Time: Hours 23 58 00

Conditional: ☐

Omit if no records: ☐

Subject: API Usage (last 30 days) Report

Introductory message:

Dear API User -
Attached please find the API Usage report for the last 30 days.

API Team

Type: PDF-landscape

Zip output: ☐

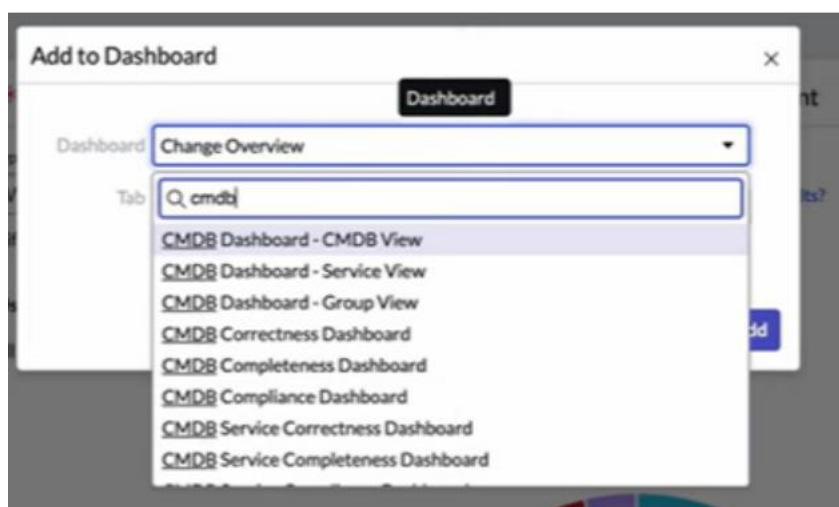
Include with: [Search]

Submit

Sharing Reports:

1. Open the report, click the **Sharing** icon, and choose **Share**.
2. Complete the form to share the report with others.

Dashboards: Dashboards allow you to display multiple reports on a single screen. They are stored in the pa_dashboards table.



Creating a Dashboard:

1. Open a report, click the **Sharing** icon, and select **Dashboard**.
 2. Fill out the form to add the report to a dashboard.
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14.1 Low Code/No Code Development

Overview: Low Code/No Code development bridges the gap between business and IT by enabling non-IT professionals to build applications with minimal programming knowledge.

Tools in ServiceNow:

- **App Engine Studio (AES):** A guided experience for creating low code/no code applications, building tables, importing data, creating workflows, and managing security.
- **Now Experience UI Builder:** A drag-and-drop tool for creating workspaces and portals.
- **Flow Designer:** Allows users to automate workflows, approvals, tasks, notifications, and record operations using natural language, without writing any code.

Pros and Cons of Low Code/No Code:

- **Pros:**
 1. Faster Development
 2. Reduces the need for extensive coding
 3. Empowers business users to build applications
- **Cons:**
 1. Limited Functionality and Customization
 2. Potential Scalability Issues