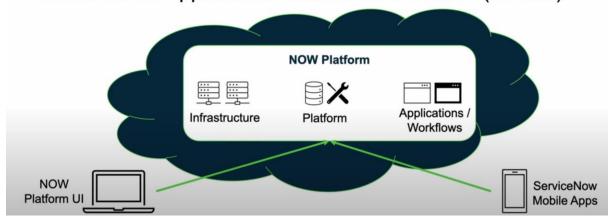
Name: SAYYED SAMEER BASIR

Week-1 Deep Skilling ServiceNow Document

What represents SN Platform:

ServiceNow, established by Fred Luddy in 2003, is a software company that specializes in providing a cloud-based Application Platform as a Service (APaaS). The purpose of this platform is to deliver a powerful, user-centric environment complete with the infrastructure, tools, software, and services required to tackle the common obstacles faced by organizations using conventional IT service delivery approaches. Serving as a mediator between business users and IT-related challenges, ServiceNow enables business professionals to solve issues on their own, eliminating the need for direct intervention from IT staff.

Cloud-based Application Platform as a Service (APaaS)



The ServiceNow system is built around three key components:

- 1. Infrastructure: The infrastructure of ServiceNow encompasses a variety of subfunctions, such as Computing Resources (which include servers, ports, and data centers), Security (provided through multiple security technologies), Service Level Agreements (SLAs) that ensure reliability and failover mechanisms, as well as a Backup system that conducts four daily backups per week in addition to six differential backups each day.
- **2. Platform:** Every application within the ServiceNow ecosystem is backed by a unified, robust database that comes with an extensive collection of tables. This platform offers a high degree of customization and can integrate effortlessly with other systems, providing users with adaptability and flexibility.
- **3. Applications and Workflows:** ServiceNow delivers a range of pre-configured, out-of-the-box applications, organized according to the workflows they support. These include IT Workflows, Employee Workflows, Customer Workflows, and Creator

Workflows, each designed with specific sub-features to meet the unique requirements of different business processes.

Overview of the ServiceNow Platform:

Integrated Service Model:

ServiceNow employs a unique service delivery model known as Application Platform as a Service (APaaS). This model merges the features of Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). By combining these three approaches, ServiceNow offers a complete package that includes infrastructure, platforms, software solutions, operating systems, and more, to streamline service delivery and operational efficiency.

System Architecture:

ServiceNow's system is designed around a domain-based architecture that organizes tasks, data, and operations according to specific criteria. Every user has access to the global domain, but access to other domains and their records is restricted to those with the necessary permissions. Built on a multi-instance framework, ServiceNow ensures that each client or organization operates within its own distinct instance and database environment. The platform uses a role-based access control (RBAC) system, where users are grouped and assigned roles that dictate their permissions and access levels. Groups can have multiple roles, each consisting of various permissions, while users with no assigned roles are referred to as self-service users.

Access and Security Controls:

Upon logging into the ServiceNow platform, users must go through an authentication process that verifies their identity and assigns access based on predefined roles. ServiceNow accommodates a range of authentication methods, including internal database authentication, Single Sign-On (SSO) from external providers, and LDAP authentication, among others, to ensure secure and versatile user access management.

By using this revised structure, the points have been reworded and rearranged to provide a fresh perspective on the ServiceNow platform, focusing on integration, system design, and access management.

Overview of the ServiceNow User Interface:

The ServiceNow user interface is structured around three primary components:

- 1. The top Banner area
- 2. The Application Navigator on the left side
- 3. The Content area (occupying the rest of the screen)

Top Banner Area:

The top banner serves as a pivotal part of the ServiceNow interface, hosting several essential features. It includes the platform's logo, which acts as a quick link to the homepage. In the System Administrator section, users can manage their personal profiles, assume the role of another user, temporarily elevate security permissions, and log out. The Tools area offers a powerful search function to locate any item within the system, a chat feature for real-time interaction with other users, and links to help and support resources. Through the Settings menu, users can modify general settings, select themes, toggle the display of forms, lists, and notifications, adjust accessibility features, and change developer options. Additionally, users have quick access to their favorites, view a list of recently accessed records or pages, navigate to different workspaces, and perform various administrative tasks directly from the top banner.

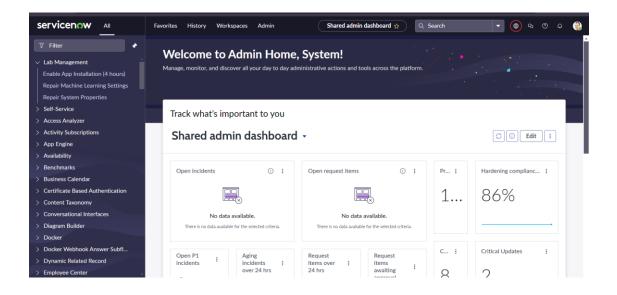
Application Navigator on the Left:

Located on the left-hand side, the Application Navigator is a tool for accessing all applications and modules available within ServiceNow. It includes a search feature to help users quickly find the applications and modules they need, making it easier to navigate through the platform and improving overall efficiency.

Content Area:

The Content area is where the main activities and information are displayed, adapting to show details relevant to the selected application or module. This section changes dynamically based on user interactions with the top banner and Application Navigator, providing a responsive experience tailored to user needs.

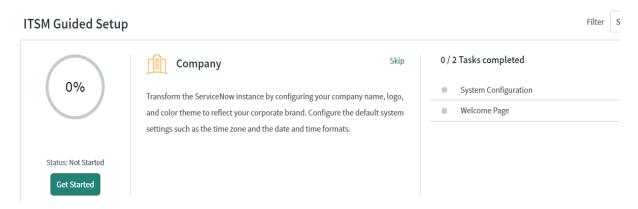
This version maintains the core elements of the ServiceNow UI while presenting them in a new and distinct format.



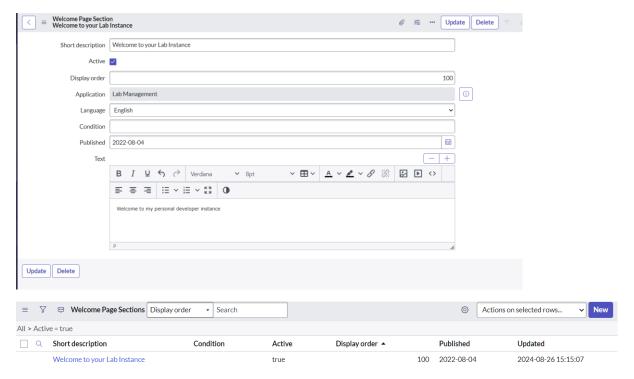
Overview of ServiceNow Branding:

Branding is essential for enhancing user adoption, building trust, and creating a seamless user experience. It reflects the organization's identity and can be tailored to meet the specific requirements of different companies.

Guided Setup:

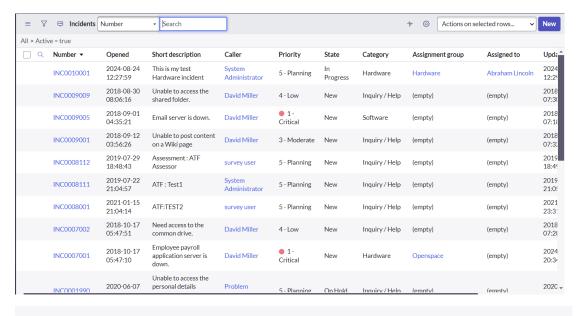


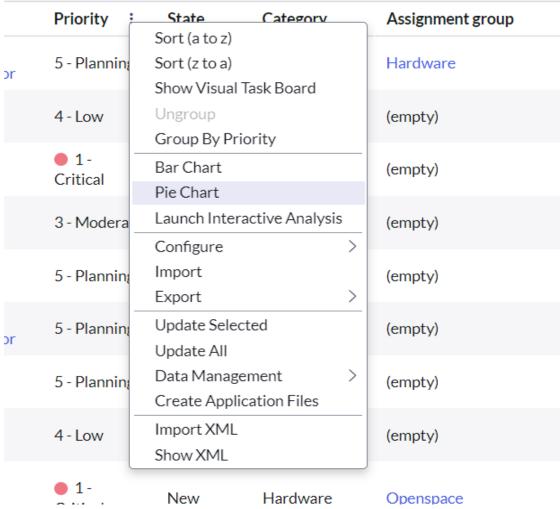
The Guided Setup feature is designed to help users and administrators configure applications in a structured, step-by-step manner. This setup process is divided into two main areas: IT Service Management (ITSM) and IT Operations Management (ITOM). ITSM focuses on setting up the Configuration Management Database (CMDB), managing incidents and major incidents, and handling go-live processes. In contrast, ITOM includes configurations for the MID Server, Discovery, and Event Management, among others. Additionally, tools such as the Service Portal and UI Builder can be used to further customize and streamline the setup process.

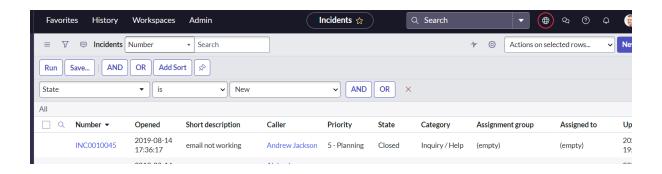


ServiceNow Lists and Filters:

List View Interface:



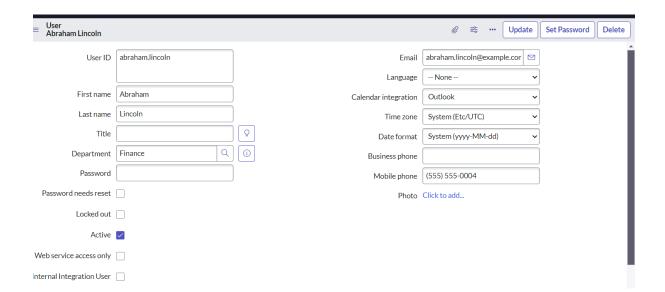




The List View interface is a specialized user interface in ServiceNow, designed to present records from database tables in an organized layout. Each list is associated with a specific table and is equipped with tools that allow users to sort, search, filter, and analyze data efficiently. Detailed information on individual list items can also be accessed. Users can open a list by entering the list name into the Application Navigator or using commands like 'tablename.list' or 'sys_tablename.list'. For those who are not familiar with these shortcuts, typing sys_db_object.list in the Application Navigator will reveal all table names stored in the database. In a list, each row displays a record, and each column shows a specific attribute or field.

The header of the list includes a menu with several controls, such as View, Filter, Group By, Show, Refresh List, and options to mark items as Favorites. Other features include a search bar for finding specific data (with support for wildcards like % and *), an activity stream that logs all actions taken, and tools such as a connection builder, breadcrumb navigation, and tagging capabilities.

This version reframes the explanation of ServiceNow's List View and filtering options to provide a new and distinctive description.



Understanding Forms in ServiceNow:

Form Interface:

A form in ServiceNow represents an individual record that users can interact with and edit. Forms are accessed by selecting a record from a list view or by searching for the record's ID using the global search function. If you need to view a reference record, such as a department associated with a particular field, you can click the 'Open Record' button within the preview. This opens up two more features: the list field, which enables the creation of one-to-many relationships between the main record and reference tables, and the journal field, where users can enter notes that are visible to certain users only.

Users have the option to copy a record and make further modifications, or they can update it to create a permanent copy. The 'Insert' function saves a copy of the record and then redirects users back to the list view. On the other hand, the 'Insert and Stay' function allows users to save a copy of the record and continue working on the same form without leaving the current page.

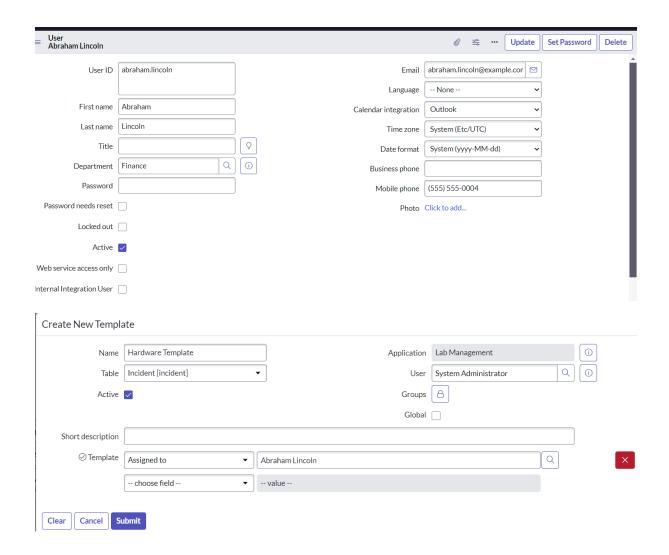
Forms are divided into sections that group related fields and information for better organization. There is also a special feature called the Form Related List, which displays records from different tables that are related to the main record. Additionally, a form formatter provides a way to display data that is not associated with any specific field; it contains information but does not include fields that can be edited. Only users with specific administrative permissions have the ability to create and modify form layouts and views.

Using Templates:

Templates are a powerful tool in ServiceNow that simplify the creation of new records by pre-filling certain form fields automatically. When creating a template, if you give it the same name as the record type, it can be accessed from the list view by clicking on the menu icon in the top-right corner and selecting "Toggle Template Bar." Users can also toggle the template bar on and off or create a new template directly from there.

Templates allow users to set default values for fields, regardless of whether those fields are currently visible on the form. Templates can also include variables for even more customization. If a template is saved with the same name as the table, it becomes the default template and will automatically populate fields whenever a new record of that type is created.

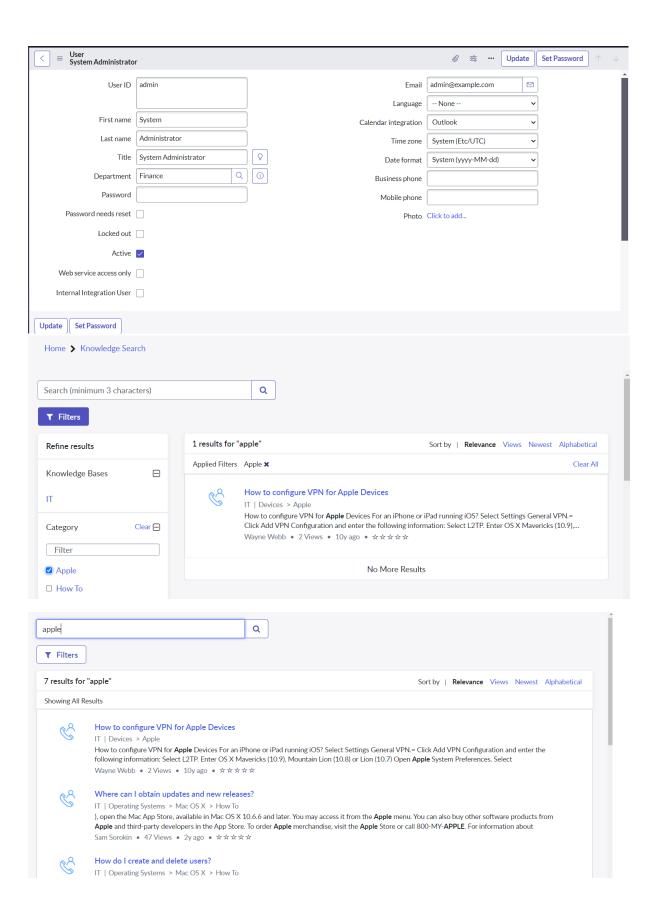
This version provides a fresh take on the information about ServiceNow forms and templates, offering a unique perspective while retaining the essence of the original content.

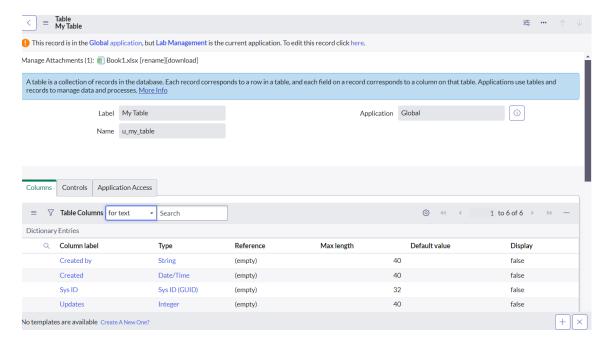


Practical Demonstration of ServiceNow Tools:

Knowledge Management System:

Knowledge bases act as comprehensive repositories of key articles and documents that are created and maintained to offer valuable information to users. These knowledge resources enable users, regardless of their role or level of expertise, to find solutions to problems and gain insights into the application. By providing step-by-step guides, best practices, and troubleshooting tips, knowledge bases support users in efficiently resolving issues and understanding how to use different features of the platform.





Introduction to Data Importing in ServiceNow:

Key Data Stages:

- 1. Source Table
- 2. Import Set Table (Staging)
- 3. Destination Table

Source:

The source is the original location or entity containing the data intended for transfer into ServiceNow. This could be a file, database, or external application where the data currently resides.

Import Set (Staging):

ServiceNow automatically generates a temporary table known as an import set or staging table. This table serves as a holding area for data before it is finalized and moved into the destination table. By utilizing this staging process, ServiceNow ensures that the data import is handled smoothly, improving system performance and allowing for data validation and transformation.

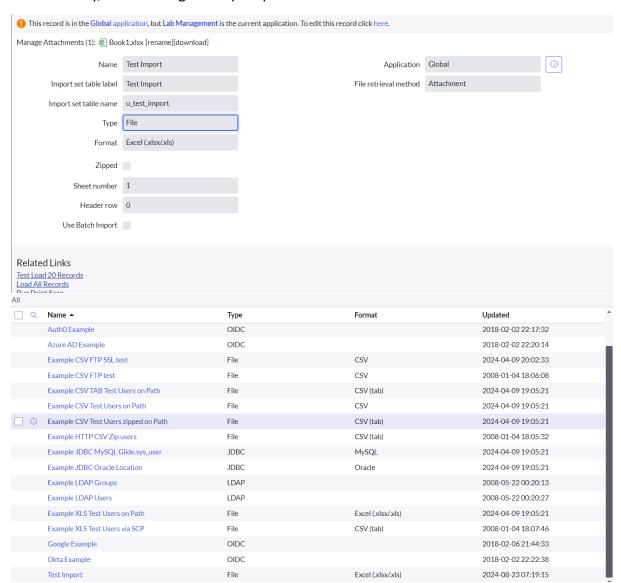
Destination:

The destination refers to the final table within ServiceNow where the imported data will reside. After being processed in the staging table, the data is transferred to this destination table, becoming part of the active records in ServiceNow.

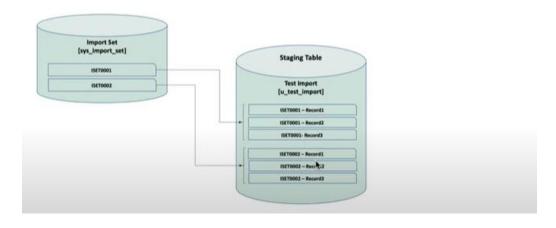
Setting Up a Data Source in ServiceNow:

A data source is a configuration that holds all the necessary details for importing data into ServiceNow. To access data source settings, you can type sys_data_source.list into the Application Navigator, or search for "System Import Set" within the navigator. When

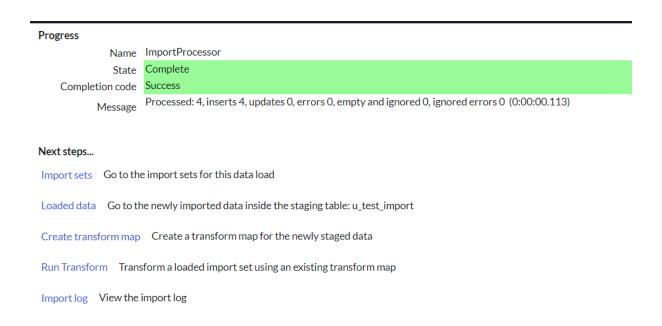
configured, ServiceNow will generate fields corresponding to each data attribute automatically, streamlining the import process.

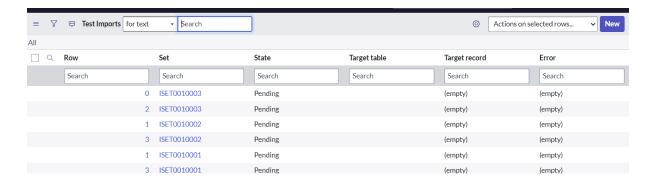


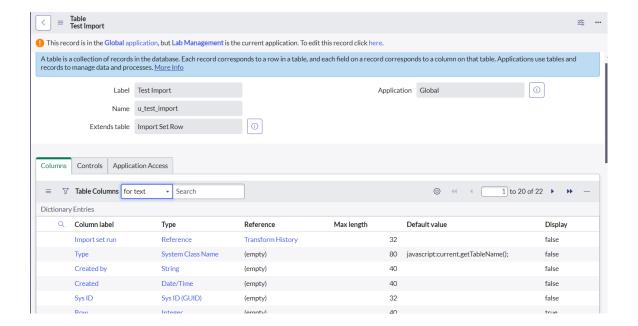
Import Sets in ServiceNow:



When you perform an initial data import in ServiceNow, the platform first determines whether a staging table exists for the designated table. If it does not, ServiceNow will automatically generate a new staging table according to the configuration details specified in the data source. This newly created staging table then temporarily holds the incoming data, organizing and preparing it for final transfer to the intended target table. Additionally, ServiceNow includes a pre-configured table, known as import sets, to facilitate the management and oversight of this interim data as it moves through the staging process.



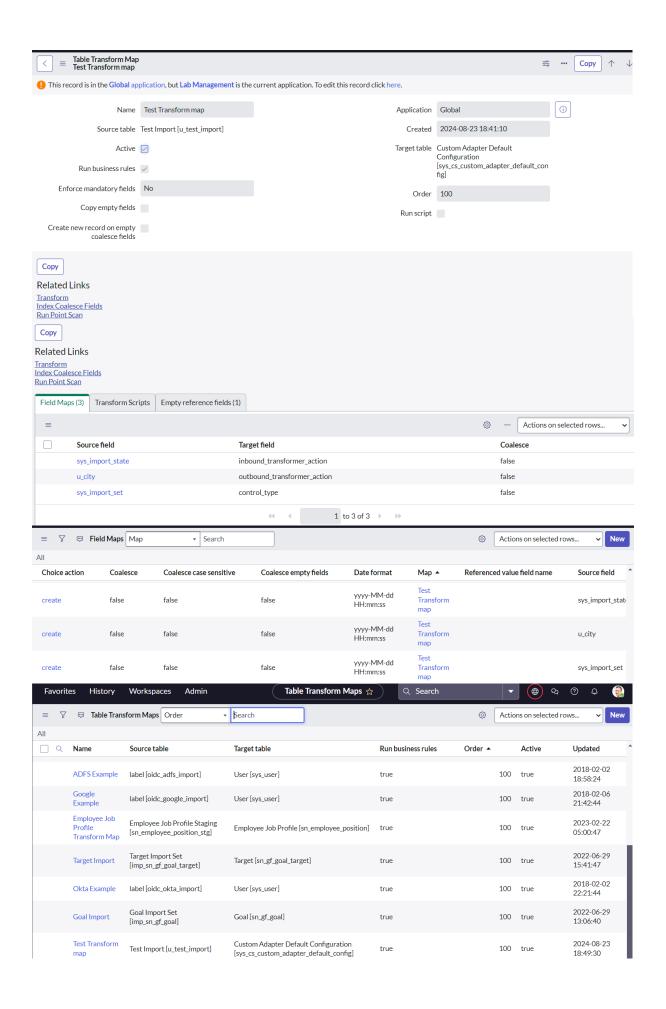




Transform Maps & Field Maps in ServiceNow:

To facilitate the transfer of data from a staging table to its final destination, ServiceNow relies on two key components:

- 1. **Field Map:** This component outlines the specifics of how individual fields from the staging table correspond to those in the target table. It ensures accurate data alignment by mapping each field appropriately. To view and manage these mappings, you can use the sys_transform_entry.list within the Application Navigator.
- 2. **Transform Map:** Serving as a container for field maps, the transform map orchestrates the entire data conversion process. It consolidates all field mappings into a unified structure, streamlining the transformation workflow. Access and manage transform maps through the sys_transform_map.list in the Application Navigator.



ServiceNow Task Management and Incident Administration Overview

In ServiceNow, tasks are fundamental units of work tracked through the platform. Each task is recorded within the core task table, but there are several specialized tables that extend this functionality:

- 1. Change Requests
- 2. Incidents
- 3. Problems

These specialized tables inherit general task attributes from the core task table and add unique fields tailored to their specific functions. Tasks can be assigned to individual users or groups, and collaborative work is supported, allowing multiple users to simultaneously interact with and update records. Task updates can be monitored in real-time through two main methods: the active viewer and the pulse feature.

Task Management Essentials

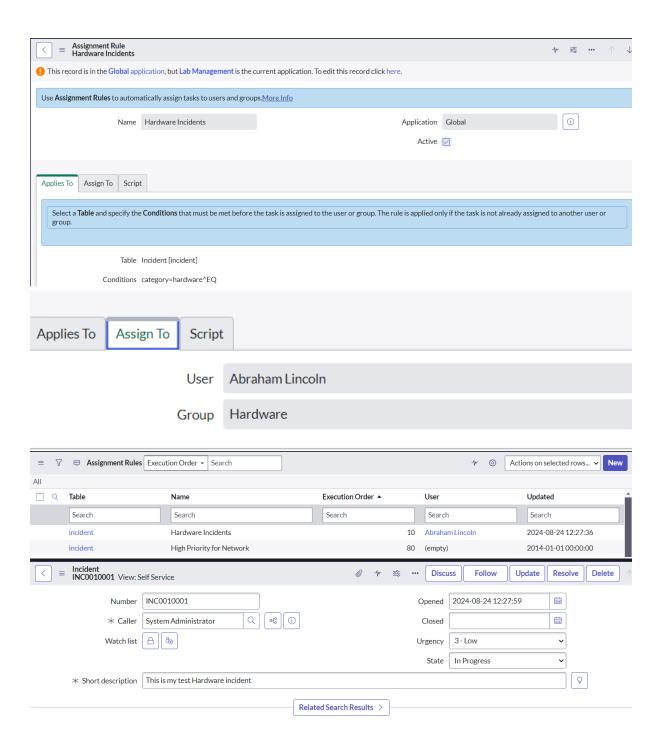
Efficient task management in ServiceNow involves structuring and tracking work processes to ensure tasks are completed efficiently. Service Level Agreements (SLAs) are used to monitor the duration a task remains open, ensuring timely completion. Automated task assignment is managed through:

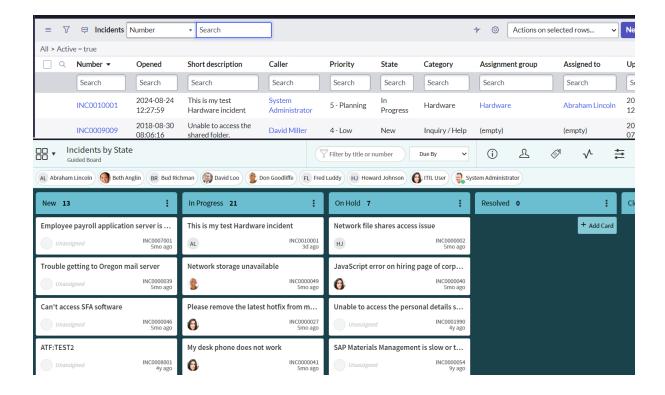
- 1. **Assignment Rules**: These are configurations in the ServiceNow database that automatically set the "Assigned To" and "Assignment Group" fields based on criteria you define. You can review and modify these rules by navigating to sys_rule_assignment.list in the Application Navigator.
- 2. **Assignment Lookup Rules**: Specific to incident-related tasks, these rules offer more constrained functionality compared to general assignment rules and are accessed via dl_u_assignment.list in the Application Navigator.

Visual Task Boards

Visual Task Boards in ServiceNow provide a dynamic, visual interface for task management, enabling users to drag and drop tasks for better organization. They help in visualizing work and spotting process bottlenecks. The boards are categorized into three types:

- Structured Boards: These boards come with predefined lanes that automatically update task values as tasks move between lanes, ensuring consistent data management.
- 2. **Customizable Boards**: Offering flexibility, these boards allow users to design and adjust lanes as needed without changing task values when tasks are moved.
- 3. **Personal Boards**: Designed for individual use, these boards allow for a personalized approach to task management, not tied to a specific list or predefined structure, making them ideal for organizing personal tasks.





ServiceNow Reporting Overview

ServiceNow's reporting system is a comprehensive tool designed to create, schedule, share, and display reports. It consists of several key components:

- 1. Reports
- 2. Data Sources
- 3. Scheduled Reports
- 4. User and Group Access
- 5. Dashboards

Reports

The foundation of ServiceNow reporting is the **Reports** module, which is a core system table for generating and managing reports. You can access this functionality by searching for sys_report.list in the Application Navigator, using ServiceNow Studio, or from an existing list view. This module includes essential details such as the System ID, Report Title, Source Type, Target Table, and any applied Filters.

Data Sources

Data Sources serve as the backbone for reports, storing and reusing predefined queries to pull data from various tables. These sources are critical for ensuring that reports are generated from consistent and accurate datasets. To manage these sources, navigate to sysauto_report in the Application Navigator. Key fields here include Sys ID and Scheduling Details.

Scheduled Reports

To automate the delivery of reports, **Scheduled Reports** are used. This feature allows reports to be sent out on a regular basis. When a report is scheduled, an entry is created in the scheduling records, ensuring timely distribution. You can track and manage these scheduled tasks from the Scheduled Email of Report table.

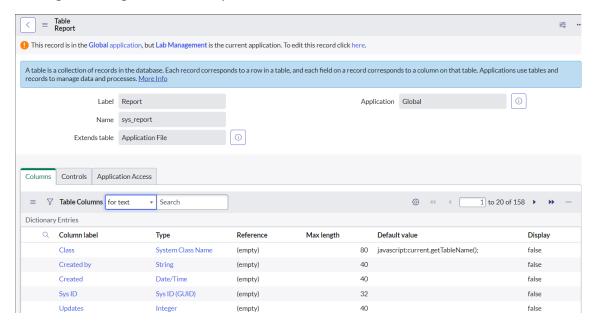
User and Group Access

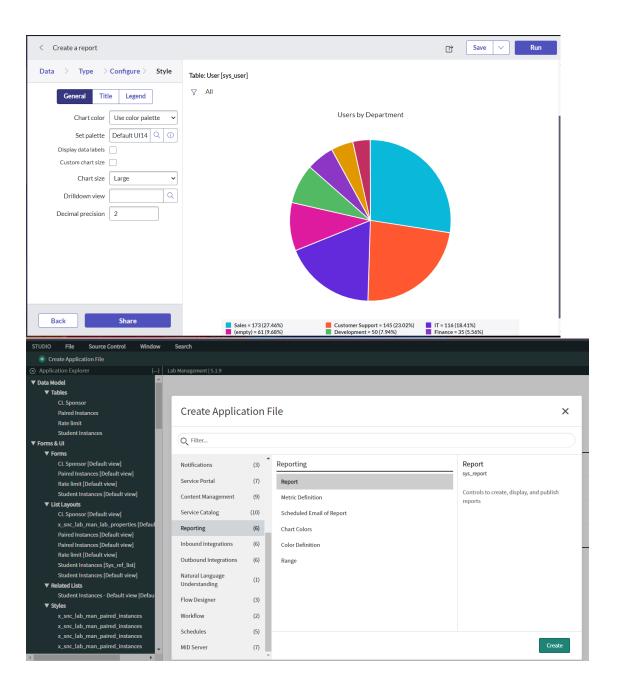
For sharing reports, the **User and Group Access** functionality allows you to specify which individuals or groups can view or modify reports. This access is managed through the Report Users & Groups table, accessible via sys_report_users_groups.list in the Application Navigator. Key fields in this table include Sys ID, Report ID, Group ID, and User ID.

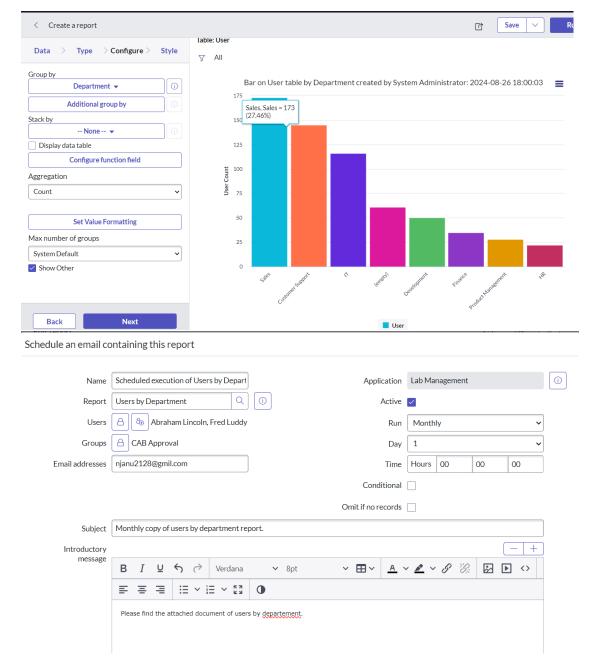
Dashboards

Dashboards provide a consolidated view where multiple reports can be displayed together, offering a comprehensive overview of data. Dashboards can be created and customized through the ps_dashboards interface in the Application Navigator. This tool allows users to create new dashboards and add reports to them, facilitating a unified data presentation.

This structured approach to reporting in ServiceNow helps in effectively managing and sharing data insights across the platform.







Understanding Low-Code/No-Code Development

Low-code/no-code development refers to a streamlined approach for creating applications and services with minimal hand-coding, leveraging visual tools and pre-built components. This method empowers users with varying levels of technical expertise to build and customize applications efficiently.

Key Tools in Low-Code/No-Code Development:

1. **App Engine Studio**: This tool allows users to design and manage applications by creating tables, importing data from spreadsheets, and designing user interfaces through a user-friendly interface.

- 2. **Studio**: For more advanced users, Studio offers a comprehensive integrated development environment (IDE) where developers can delve deeper into application components, creating custom solutions with more control.
- 3. **Now UI Builder**: This tool simplifies the creation of workspaces and portals by enabling users to design interfaces through a drag-and-drop method, facilitating quick and intuitive layout design.
- 4. **Flow Designer**: Utilizing natural language processing (NLP), Flow Designer helps automate workflows by enabling users to create complex processes through a visual interface.
- 5. **CMDB (Configuration Management Database)**: Provides a centralized view of the IT infrastructure, helping users understand and manage various IT entities and their relationships within the organization.

Benefits and Drawbacks:

Advantages:

- **Enhanced Agility**: Accelerates the creation and deployment of IT services, allowing for rapid adjustments and iterations.
- **Increased Automation**: Facilitates the development of applications that automate routine tasks, improving efficiency.
- **Cost Efficiency**: Reduces the need for extensive custom coding, leading to lower development costs.

Challenges:

- **Limited Customization**: The use of pre-built components and templates can restrict the ability to create highly tailored solutions.
- **Generalization**: The need to accommodate a broad range of users may lead to less flexibility in addressing specific technical requirements.