Module 1 - ServiceNow Platform and Development Fundamentals

#Week - 1

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August 24, 2024

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ServiceNow

What is ServiceNow?

ServiceNow is a cloud-based platform designed to streamline digital workflows across various business processes like IT service management, HR, and customer service. It integrates different tools and systems, providing a unified platform for managing tasks and resolving issues efficiently.

Key Features:

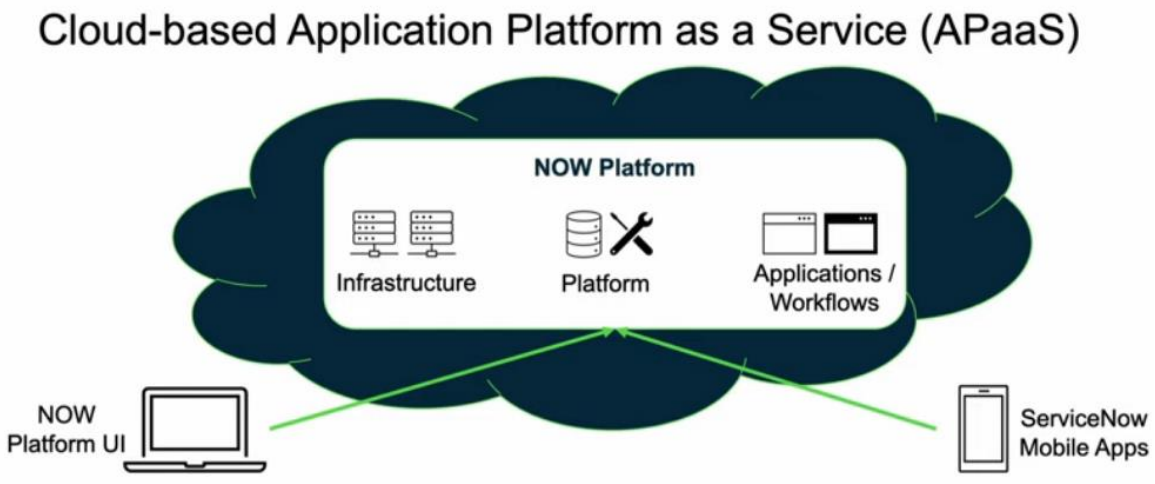
- **IT Service Management:** Automates IT processes, helping organizations respond to incidents, requests, and changes quickly.
- **HR Service Delivery:** Improves employee experiences by automating HR processes, such as onboarding.
- **Customer Service Management:** Enhances customer experiences by automating and managing customer interactions across channels.

Learning Points:

- **Automation:** ServiceNow's automation capabilities reduce manual work, saving time and resources.
- **Integration:** The platform integrates various tools, offering a seamless experience for users.
- **Scalability:** It can be scaled according to an organization's needs, making it suitable for businesses of all sizes.

Overview of ServiceNow Platform:

ServiceNow is an enterprise cloud platform that helps businesses manage and automate their IT operations, HR processes, and customer service management. It offers a unified interface to handle workflows across different departments, ensuring efficiency and transparency.

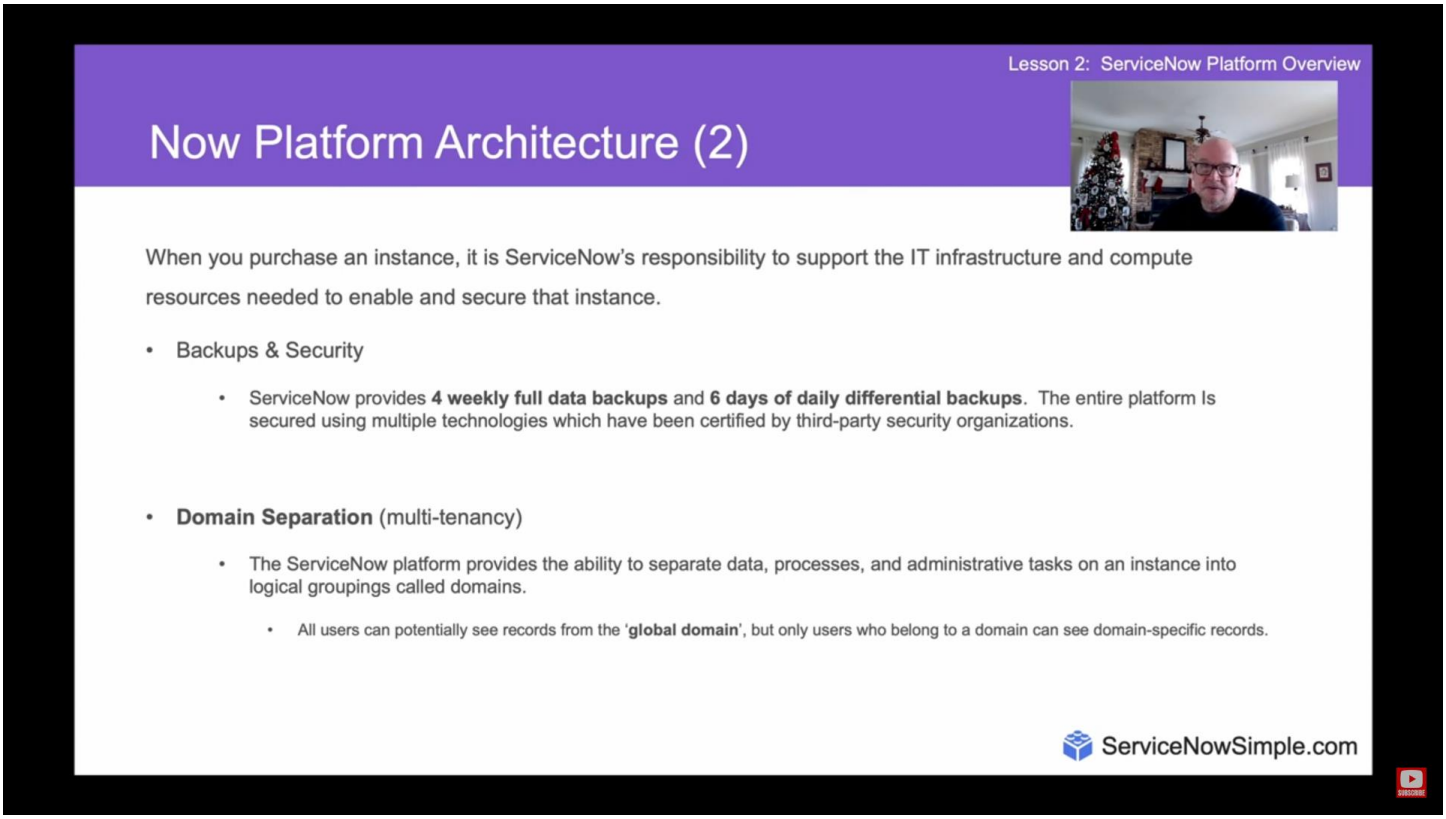


Key Features:

- **Customizable Dashboards:** Users can create personalized dashboards to track key performance indicators and tasks.
- **Automation of Processes:** Automates repetitive tasks, reducing manual effort.
- **Integration Capabilities:** Easily integrates with other software and tools, streamlining operations.

Learning Points:

- **User-Friendly Interface:** The platform is intuitive and easy to navigate, allowing users to focus on their tasks.
- **Efficiency in Operations:** By automating processes, ServiceNow reduces the time taken to complete tasks.
- **Scalability and Flexibility:** The platform can grow with the business, adapting to changing needs.



I learned several key aspects about the platform. First, ServiceNow, founded by Fred Luddy, aims to simplify business processes by allowing users to address their own issues with an intuitive technology platform. The platform is categorized as an "application platform as a service" (APaaS), blending elements of infrastructure, platform, and software services. This approach offers a dedicated instance for each customer, enhancing control and security compared to shared cloud environments. ServiceNow's

applications are divided into four main categories: IT workflows, employee workflows, customer workflows, and creator workflows, each encompassing a range of specific modules. Additionally, the platform features multi-instance architecture for better control over data and upgrades, robust security measures including role-based access and various authentication options, and different user interfaces such as the main UI, mobile apps, and the service portal. The video also highlighted the importance of understanding role-based access, where roles are collections of permissions assigned to users or groups, and various authentication methods supported by ServiceNow.

ServiceNow User Interface Overview

1. **Screen Layout and Elements**

- **Banner Frame:**
  - Runs across the top of the UI.
  - Contains:
    - **Logo:** Click to return to the home page.
    - **User Menu:** Access profile settings, impersonate users, elevate roles, and log out.
    - **Tools:**
      - **Global Search:** Search the entire instance.
      - **Connect Chat:** Real-time chat with other users.
      - **Help Tool:** Provides contextual help, access to user guides, and documentation search.
    - **System Settings:** Customize the UI, including general settings, theme settings, accessibility, list settings, form settings, notification settings, and developer settings.

- **Application Navigator:**
  - Located on the left sidebar.
  - **Filter:** Helps search for applications and modules by typing keywords.
  - **Tabs:**
    - **All Applications:** Shows all applications and modules.
    - **Favorites:** Displays marked favorite applications and records.
    - **History:** Lists recently accessed items.

    - **Hierarchy:** Applications are the top level with modules underneath. Separators are used to group modules.
- **Content Frame:**
    - The remainder of the screen where the application content displays.

2. System Settings Details

- **General Settings:** Adjust UI compactness, keyboard shortcuts, home page preferences, date/time display, and time zone.
- **Theme Settings:** Customize the color scheme of the UI.
- **Accessibility Settings:** Set accessibility options.
- **List Settings:** Customize how lists of data are displayed.
- **Form Settings:** Adjust form views, related lists, and performance-related settings.

- **Notification Settings:** Manage notifications and channels.
- **Developer Settings:** Configure application scopes, update sets, and development tools.
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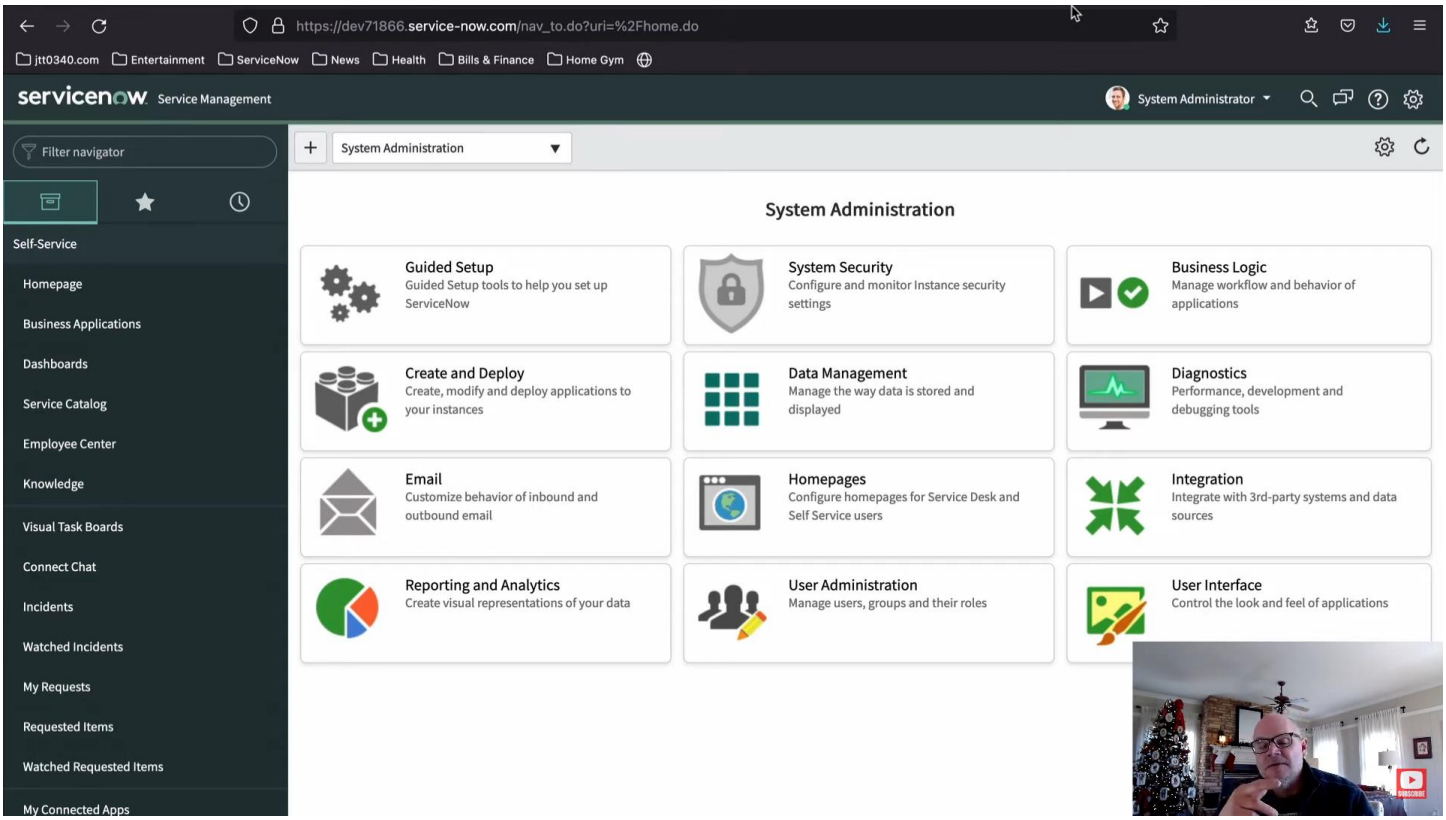
3. Application Navigator Details

- **Navigation Filter:** Allows you to filter applications and modules.
- **Tabs:**
    - **All Applications:** Default view showing all applications.
    - **Favorites:** Quick access to marked favorite applications or records.
    - **History:** Access to the last 30 items visited.
- **Hierarchy and Separators:** Organize applications and modules into a hierarchical structure with expandable/collapsible separators.

Demonstration

The video concludes with a demonstration of these elements in a ServiceNow instance, showing how to use the user menu, tools, and the application navigator effectively.



ServiceNow Branding Overview:

ServiceNow User Branding Overview

Branding Overview
Objective: The primary goal of ServiceNow branding is to personalize the out-of-the-box user interface so that it visually and functionally represents your company's brand. This includes modifying elements such as colors, fonts, and logos to create a user experience that resonates with the company's identity.

Benefits:

- **Enhanced User Comfort**: By customizing the interface, users are presented with a familiar environment that mirrors other corporate applications, fostering a sense of comfort and confidence.
- **Consistent Brand Identity**: Aligning the ServiceNow interface with corporate branding helps reinforce the company's identity and ensures consistency across various touchpoints.
- **Improved Adoption Rates**: A branded interface can make the platform more approachable and engaging, potentially accelerating user adoption.

Guided Setup for Branding

Guided Setup Application: ServiceNow provides a series of guided setup wizards designed to streamline the configuration process for various aspects of the platform. These wizards are particularly useful for managing branding and interface customization.

Key Modules:

- **IT Service Management (ITSM) Guided Setup**: Focuses on configuring the overall look and feel of the ServiceNow instance. It includes specific steps for branding and personalization.
- **IT Operations Management (ITOM) Guided Setup**: Although not directly related to branding, this module provides tools for configuring other operational aspects of ServiceNow.

Key Branding Tasks

1. System Configuration:

- **Page Header Caption**: Modify the text displayed in the header area of the ServiceNow interface to better reflect the company's branding.
- **Banner Image**: Upload and set a banner image, such as the company's logo, to appear prominently in the interface.

- **Visual Customizations**: Adjust background colors, text colors, and other visual elements to align with the company's brand guidelines.
- **Date and Time Formats**: Configure how dates and times are displayed across the platform to match company standards.

2. Welcome Page Customization:

- **Purpose**: The welcome page is the initial screen users encounter when logging into ServiceNow. Customizing this page can include adding messages or alerts.
- **Configuration**: Create and manage custom welcome messages by adding new records and setting their display order. This allows for the communication of important updates or a personalized welcome note to users.

Additional Personalization Options

1. Service Portal:

- A widget-based interface builder that enables the customization of user interfaces by allowing users to add and arrange widgets. This tool provides a flexible approach to designing a branded user experience.

2. UI Builder:
- A WYSIWYG (What You See Is What You Get) editor that allows for the creation of functional screens by adding various elements such as buttons, headings, and reports. This tool provides advanced capabilities for tailoring the user interface to specific needs.

Summary
The lesson emphasized the importance of customizing the ServiceNow interface to reflect the company's branding. This not only enhances the user experience but also ensures that the platform aligns with corporate identity standards. The use of guided setup wizards simplifies the branding process, allowing administrators to implement and manage these changes efficiently.

ServiceNow Lists and Filters

After watching the video on ServiceNow, I have gained a comprehensive understanding of how **lists and list views** function within the platform. The video emphasized that lists are a fundamental component of ServiceNow, being integral to navigating through various tables, incidents, problems, and tasks. ServiceNow's list interface, known as the **list view**, is a user interface page specifically designed to present lists of records from database tables. This interface is equipped with tools that make it easy to **sort**, **search**, **filter**, and **analyze** list data, allowing users to manage and interact with vast amounts of information efficiently.

One of the key features discussed is the **dot list command** (table_name.list), which allows users to directly access the list view of any table by simply knowing its name. This command is particularly useful for quickly navigating to specific tables like incident.list for the Incident table or sysuser.list for the User table. Additionally, the video introduced a handy trick for those unfamiliar with table names: the **sys_db_object.list** command,

which opens the list interface for the **tables table**, essentially a table of tables, providing a complete overview of all tables within the ServiceNow database.

The video also delved into the **title bar**, **list header**, and **data rows and columns** that make up the list view. The title bar includes the **list control menu** (hamburger icon), which offers various options like selecting saved views, applying filters, grouping data, and adjusting the number of records displayed per page. The **list header** houses tools such as the **personalized list tool**, which allows users to customize the columns displayed without affecting other users, and the **condition builder**, a robust filtering tool that supports complex queries with **AND/OR operators**, **multiple columns**, and **sorting**.

Furthermore, the video highlighted the importance of **breadcrumbs** in ServiceNow's list view, which unlike traditional breadcrumbs, serve to indicate any applied filters rather than showing navigation paths. This feature is particularly useful for understanding the context of the data being viewed, ensuring that users make informed decisions based on the correct dataset. The video also covered various **context menus** available within the list view, including the **column context menu** and **field context menu**, which provide additional functionalities such as creating visual task boards, generating charts, and applying field-specific filters.

In summary, the video provided an in-depth look at how to effectively navigate and utilize ServiceNow's list views, emphasizing the importance of **filters**, **context menus**, and **customization tools** in managing and analysing data within the platform. These features are crucial for maximizing efficiency and ensuring accurate data handling in ServiceNow.

Forms in ServiceNow

In this video, Jeff Teist, a seasoned software developer and technical architect with over 30 years of experience, dives deep into the topic of **forms in ServiceNow**, emphasizing their importance for both certification exams and overall proficiency in the platform. Jeff begins by explaining the fundamental concept of forms in ServiceNow, highlighting that forms are integral to interacting with individual records within the platform. Whether viewing, editing, or creating records, forms are the primary interface users engage with.

Jeff introduces the **ServiceNow database** and explains how forms correspond to different data tables within this database. Each form in ServiceNow is linked to a specific table, and users can interact with forms to manipulate the data stored in these tables. He provides examples by showing forms for incident records and user records, illustrating the standardized layout ServiceNow employs across different forms. This uniformity in form design simplifies the user experience by ensuring that all forms have a consistent header bar, main section filled with fields, and additional sections for related lists and formatters.

The video delves into the specifics of form elements, starting with fields, which are the core components that display and collect data. Jeff explains that fields are defined by their **data types** in the database, influencing how they appear on the form. For instance, **string fields** display as simple input elements, **Boolean fields** as checkboxes, and **choice fields** as drop-down lists. He also discusses **reference fields**, which are particularly important as they allow users to link data between tables, effectively managing relationships between records.

A significant portion of the video is dedicated to explaining the different types of fields users may encounter, such as **list fields**, which allow multiple values from a reference table, and **journal fields**, which are used for adding notes to records. These fields are crucial in task-related records like incidents and changes, where the visibility of notes (e.g., additional comments or work notes) can differ based on user roles.

Jeff also touches on **UI policies**, which govern the behavior of fields based on the values of other fields. This dynamic interaction is exemplified by the **on hold reason field** in incident forms, which only appears when the incident state is set to "On Hold." Although UI policies are outside the scope of this lesson, Jeff emphasizes their importance in customizing form behavior.

When it comes to saving changes, Jeff clarifies that ServiceNow does not auto-save, requiring users to manually submit, update, or save their work. He distinguishes between **submitting**, **updating**, and **saving** records, explaining their respective functions and the contexts in which each should be used. Additionally, he demonstrates how users can create copies of existing records using the **insert** and **insert and stay** options, which are useful for duplicating records with similar data.

The video also covers the organization of forms into **sections**, which can be displayed as tabs or collapsible containers, depending on user preference. These sections help group related fields and additional elements like **related lists** and **formatters**. Related lists display records from other tables related to the current record, while formatters provide supplementary information that isn't tied to a specific field.

Finally, Jeff introduces the concept of **form views**, which are customized layouts of forms tailored to different user needs. He explains how different views can be created and saved, allowing users to switch between them based on their role or task. For users with appropriate permissions, these views can be further customized using the **form design** and **form layout** tools. The former offers a drag-and-drop interface for

creating and modifying form views, while the latter provides a more traditional, bucket-style method for managing fields.

Jeff wraps up the lesson by encouraging viewers to explore these concepts in their own ServiceNow instances, reinforcing the importance of forms in mastering the platform. The video is a comprehensive guide to understanding and effectively using forms in ServiceNow, making it an essential resource for anyone looking to deepen their knowledge or prepare for the CSA certification exam.

A Hands on ServiceNow Tool Demo

Introduction

- **Purpose**: Demonstrate what ServiceNow is through a live demonstration, focusing on user interface and functionality.
- **Plan**: Start with an overview of logging in and navigating ServiceNow; later provide instructions on obtaining a personal instance.

Logging into ServiceNow

- **Browser**: Use any major browser (e.g., Google Chrome).
- **URL**: Enter the URL for the ServiceNow instance to reach the login screen.
- **Instance Details**:
    - ServiceNow is a cloud-based platform providing IT services.
    - Companies get URLs for their ServiceNow instances (e.g., Production, Test, Development).
    - Login requires a user account with assigned roles (e.g., admin).

Navigating the User Interface

- **Next Experience UI**: Main interface for interacting with ServiceNow.
- **Other UIs**: Mobile apps (Android/iOS), Service Portal, Employee Center.
- **Navigation Bar Overview**:
    - **User Menu**: User settings and preferences.
    - **Show Notifications**: View notifications related to platform events.
    - **Contextual Help**: Access knowledge-base articles and help tools.
    - **Application Scope Picker**: Admin tool for managing application access.
    - **Global Search**: Search across the entire platform.
    - **Contextual App Pill**: Shows current location within the platform.
    - **Favourites**: Save frequently accessed screens or applications.

- **Admin Menu**: Admin-specific tools.
- **Workspaces**: Single screens with multiple widgets for specific tasks.
- **History**: Track recent screens or actions.
- **Favourites**: Mark important screens or applications for easy access.
- **All Menu**: Access all applications, including custom ones.

ServiceNow Application Offerings

- **Workflows**:
  - **IT Workflows**: 79 applications for internal IT functions.
  - **Employee Workflows**: 43 applications for employee needs.
  - **Customer Workflows**: 93 applications for customer-related functions.
  - **Creator Workflows**: 23 applications for creating and customizing applications.
- **Applications**: Extensive list available, including Self-Service, App Engine, Employee Center, Integration Hub, Predictive Intelligence, Process Automation, and more.

Working with Lists and Forms

- **Lists**: Display multiple records from a database table.
  - **Views**: Create multiple views tailored to different needs.
  - **Filters**: Apply and save filters to customize list views.
  - **Condition Builder**: Build sophisticated filters using AND/OR conditions.
  - **Personalized List**: Customize the display of list fields for individual users.
  - **Actions on Selected Rows**: Perform bulk actions (e.g., delete, archive).
  - **New Button**: Create new records directly from the list view.
- **Forms**: Display and edit individual records from a database table.

Certification and Training

- **Certifications**: Available for various roles and applications.
- **Training**: Offered to enhance career skills or company training needs.
- **Certification Types**: Includes Implementer certifications for specific application areas.

Column Heading Features:

- **Magnifying Glass**: Search and filter records by specific columns (e.g., State, Category).

- **Sort Button**: Click to sort the column ascending or descending.
- **Column Context Menu**:
    - **Sort**: Sort records by the selected column.
    - **Show Visual Task Board**: Visual representation of tasks.
    - **Group By**: Group records by column values (e.g., State).
    - **Ungroup**: Return to a full list view.
    - **Show Pie Chart**: Visualize data in a pie chart.
    - **Import/Export Data**: Import/export records in XML format or to Excel.

Field or Row Context Menu:

- **Show Matching**: Filter to show records matching a specific field value.
- **Filter Out**: Exclude records with a specific field value.
- **Assign Tags**: Add tags to records.
- **Copy SysID**: Copy the unique identifier for the record.

Pagination Tools: Traverse through multiple pages of records.

Forms Overview:

- **Single Record View**: Displays detailed information about one record.
- **Sections and Related Lists**: Show related information such as roles and groups.
- **Form Context Menu**:
    - **Save Record**: Save changes to the record.
    - **Insert New Record**: Create a new record.
    - **Insert and Stay**: Create a new record based on an existing one.
    - **Export Record**: Export record data.
    - **Custom Views**: Create and switch between different views for specific needs.
    - **Personalize Form**: Adjust fields and layout for personal preferences.
    - **Attachments**: Add files to the record.
    - **Update Record**: Apply changes to the record.

Field-Specific Tools:

- **True/False Fields**: Display as checkboxes.
- **Reference Fields**: Use magnifying glass to look up related records.

Knowledge Application:

- **Knowledge Bases**: Libraries of articles categorized by topic.
- **Categories and Articles**: Organize articles into categories (e.g., Devices).
- **Search Function**: Find articles by keywords.
- **Article Features**:
    - **Flag**: Report inappropriate or incorrect content.
    - **Create Incident**: Create a task related to the article.
    - **Edit**: Modify article content (if permissions allow).
    - **Rate**: Provide feedback on article usefulness.
    - **Comment**: Start discussions or provide feedback on the article.

ServiceNow Database:
- **Tables Overview**: View all tables in ServiceNow, with the ability to modify or create tables.
- **CMDB**: Core database for managing infrastructure and services.

Personal Developer Instance:
- **Access**: Apply for a Personal Developer Instance to explore ServiceNow.
- **Separate Video**: Link to a video for applying for a Personal Developer Instance.

Introduction to Importing Data in ServiceNow

Introduction to Import Series:
- **Purpose**: Overview of setting up and executing a standard data import in ServiceNow.
- **Topics Covered**: Data sources, import sets, transform maps, field maps, and data import scheduling.

Terminology:
- **Source Data Entity**: The original data that needs to be imported.
- **Target Entity**: The destination in ServiceNow where the data should be loaded.

Intermediate Data Entity:
- **Staging Table**: Also known as an import set table in ServiceNow.
    - **Function**: An intermediary table created by ServiceNow to temporarily hold data during the import process.
    - **Creation**: Automatically generated by ServiceNow during the import; no manual creation required.

Import Process Overview:
- **Three Data Entities**:

- **Source Data**: The original data to be imported.
- **Staging Table**: Temporary table created by ServiceNow.
- **Target Data Store**: The final destination within ServiceNow for the imported data.

Creating a Data Source in ServiceNow

Introduction :

- **Topic**: Creating a Data Source in ServiceNow.
- **Review of Note 1**: Discussed the concept of source, staging table, and target entity in the import process.

Creating a Data Source:

- **Purpose**: Define and configure the data source, specifying the source type, connection details, and how the staging table should be named.
- **Data Source**: A record in ServiceNow that stores parameters for the import process.

Steps to Create a Data Source:

- **Navigate to Data Source Table**:
  - **Table Name**: 'sys_data_source'
  - **Access**: Use Application Navigator or filter navigator ('sys_data_source.list').
- **Create a New Data Source**:
  - **Action**: Click "New" to open the form for creating a data source.
  - **Name**: Provide a name for the data source (e.g., "test import").
  - **Label**: Set the label for the staging table.
  - **Table Name**: Automatically generated based on the label (e.g., u_test_import).

Data Source Type:

- **File**: For importing data from files such as CSV or Excel.
  - **File Type**: Choose file format (e.g., Excel, CSV).
  - **File Retrieval Method**: Use attachment for simplicity.
- **JDBC**: For connecting to databases (e.g., Oracle, SQL Server).
  - **Parameters**: Enter database details such as server name, port, username, and password.

Data Source Configuration:

- **File Details**:
    - **Format**: Choose the format (e.g., Excel).
    - **Sheet Number**: Specify if applicable.
    - **Header Row**: Ensure the header row is included for field mapping.
- **Attachment**: Attach the file to the data source.

Submit and Save:
- **Action**: Click "Submit" to save the data source record.
- **Verification**: Confirm the data source appears in the list with the correct type and parameters.

Excel Spreadsheet Example:
- **Content**: Includes columns such as Name, Address, City, State, ZIP.
- **Header Row**: Used to create fields in the staging table.

Understanding Import Sets in ServiceNow

Introduction :
- **Focus**: Staging Table (Import Set Table) in ServiceNow.
- **Context**: Building on Note 2, which covered creating a data source.

Review of Previous Note:
- **Data Source Creation**: Configured a data source record in the 'sys_data_source' table.
- **Staging Table**: Parameters for creating the staging table were set (name and label).

Testing the Data Source:
- **Navigate to Data Source**:
    - **Access**: Use 'sys_data_source.list' in the Application Navigator.
    - **Review**: Confirm data source record details (label, table name).

- **Table Verification**:
    - **Check Table**: The staging table (‘u_test_import’) does not exist yet because no import has been run.

Running an Import:
- **Action**: Test the data source by running an import.
    - **Import Options**: Choose to load all records (5 in this case).
    - **Process**: ServiceNow creates the staging table if it doesn't exist, pulls data, and loads it into the staging table.
    - **Result**: Success message showing 5 records processed and inserted.

Viewing the Staging Table:
- **Access**: Use ‘u_test_import.list’ to view the staging table.
- **Structure**: The staging table now has 5 rows (corresponding to the 5 records from the spreadsheet).
- **Column Configuration**: Check columns to ensure they match the header row in the source file.

Re-import and Management:
- **Re-run Import**: Import data again to demonstrate record management.
    - **Result**: Two imports resulted in 10 records in the staging table (5 from each run).
- **Import Set Table**:
    - **Table Name**: ‘sys_import_set’
    - **Purpose**: Manages import sets or groups.
    - **Records**: Each record in this table represents an import run. Example: iset10036 and iset10037.

Import Set Table Details:
- **Purpose**: Each import run creates a record in the ‘sys_import_set’ table.
- **Reference**: Records in the staging table link back to the import set record to track which import they belong to.
- **Review**: Confirm that records in the staging table have references to the correct import set

ServiceNow Transform Maps & Field Maps

Introduction to Transform Maps and Field Maps
- **Series Context:**

- Previous notes covered creating and testing data sources and staging tables.
- This note focuses on mapping data from staging to target tables using transform maps and field maps.

Definitions:

- **Field Maps:**
  - Define how data moves from the staging table to the target table on a field-by-field basis.
  - Each field mapping is stored as a record in the CIS_transform_entry table (labelled as "Field Map").
- **Transform Maps:**
  - Group field maps together to represent the entire import process.
  - Stored in the CIS_transform_map table (labelled as "Transform Map").

Setup Process:

- **Custom Table for Target:**
  - Custom table created for demonstration:
    - Label: My Table
    - Actual name: u_my_table
    - Fields: username, address, city, state, zip_code.
- **Creating Transform Map:**
  - Go to CIS_transform_map.list and create a new record.
  - Provide a name (e.g., test_transform_map).
  - Set the source table (e.g., test_import - the staging table).
  - Set the target table (e.g., u_my_table - the custom table).
- **Adding Field Maps:**
  - Use the "Mapping Assistant" tool to automatically or manually map fields from the staging table to the target table.
  - Field maps created:
    - name -> username
    - address -> address
    - city -> city
    - state -> state
    - zip -> zip_code

- **Coalesce Field:**
    - Coalesce field used to prevent duplicate records.
    - Definition: Coalesce means to come together or match.
    - Set coalesce field on the field map record to avoid duplicates. (e.g., using name as the coalesce field)

Review:

- **Field Maps Table:**
    - Table: CIS_transform_entry
    - Shows 5 field maps created.
- **Transform Maps Table:**
    - Table: CIS_transform_map
    - Shows 1 record with related field maps.

ServiceNow Incident Management Tutorial and Task Administration

Introduction

- **ServiceNow Vision:** Designed to make work as efficient as possible with task management as a primary function.
- **Lesson Focus:** Task management in ServiceNow, including the task table and core components.

Instructor and Series Overview

- **Instructor:** Jeff Teist, with 30+ years in software development and technical architecture.
- **Series Purpose:** Repackaging and simplifying notes from the ServiceNow fundamentals learning path for CSA certification exam preparation.
- **Content:** 27 videos covering CSA certification and improving ServiceNow skills.

Task Definition and Table

- **Task in ServiceNow:** A record in the database representing an item of work, stored in the "task" table.
- **Common Fields:** Description, status, due date, and responsible user.
- **Viewing Tasks:** Use task.list in the app navigator to see records in the task table.

Hierarchical Database Design

- **Extension of Task Table:** Tables like Change Request, Incident, and Problem extend the task table, inheriting common attributes and adding specific ones.

- **Creation of Records:** You create records in these extended tables, which automatically generate task records.

Business Value of Task Management

- **Process Efficiency:** Allows building repeatable processes for common tasks.
- **Features:**
    - **Assignment Rules:** Automatically assign tasks to users/groups.
    - **Approvals:** Manage approval processes manually or automatically.
    - **Service Level Agreements (SLAs):** Track completion timeframes.
    - **Inactivity Monitors:** Notify when tasks are untouched.
    - **Workflows:** Apply workflows to tasks based on conditions.

Task Assignment

- **Assignment Fields:** assigned_to and assignment_group fields.
- **User and Group Tables:** Manage users and groups, allowing tasks to be assigned accordingly.
- **Assignment Rules:**
    - **Definition:** Rules to automatically assign tasks based on conditions.
    - **Table:** Stored in sys_rule_assignment.
    - **Execution Order:** Determines the order in which rules are applied.
- **Example:** Creating an assignment rule to assign hardware incidents to a specific group and user.

Assignment Lookup Rules

- **Limitations:** Only applicable to incidents and with a limited set of fields for conditions.
- **Comparison:** Less powerful than assignment rules.

Working on Tasks

- **Service Desk Application:** Use to access tasks assigned to yourself or your group.
- **Collaboration Tools:**
    - **User Presence:** View and update records simultaneously with others.
    - **Real-Time Editing:** See updates as they happen.

Visual Task Boards

- **Purpose:** Provide a graphical, drag-and-drop interface to manage tasks.
- **Components:**

    - **Cards:** Represent tasks.
    - **Lanes:** Group tasks by attributes (e.g., category).
    - **Quick Panel:** For filtering and user assignment.
- **Types of Boards:**
    - **Guided Boards:** Created from lists with predefined attributes.
    - **Flexible Boards:** Created from lists with non-predefined attributes.
    - **Freeform Boards:** Personalized boards not tied to existing records.

Creating and Using Boards

- **Guided Board:** Based on attributes with predefined values.
- **Flexible Board:** Lanes are customizable; does not impact task values.
- **Freeform Board:** Personalized and not tied to records.

ServiceNow Reporting Tutorial

Overview

- **Series Theme**: Teaching ServiceNow through a data-driven approach.
- **Focus**: Reporting capabilities in ServiceNow.

Key Points

- **Core Concept**: Everything in ServiceNow is a record in a database.
- **Reporting Capabilities**: Covers creating, managing, publishing, and sharing reports.

Underlying Data Model

- **Main Tables**:
    - **sys_report**: Stores records for each report.
    - **sys_report_source**: Stores reusable queries for reports.
    - **sys_auto_report**: Manages scheduling and emailing of reports.
    - **sys_report_users_groups**: Manages sharing of reports with users or groups.

- **pa_dashboard**: End table for dashboards that display reports.

Report Table (sys_report)

- **Fields**:
  - **sys_id**: Unique ID of the report.
  - **title**: Title of the report.
  - **source_type**: Indicates the data source (table or data source).
  - **source**: Specifies the data source record if source_type is data source.
  - **table**: Primary table for report data.
  - **field_name**: Field used for grouping data.
  - **filter**: Conditions to filter data for the report.
  - **type**: Type of report (e.g., list, bar chart, pie chart).

Report Types

- **Examples**: Lists, Box, Bar, Pivot, Trends, Line, Control, Spline, Area, Histogram, Heat Map, Map,

  Calendars, Bubble, Funnel, Pyramid, Donuts, Pie, Speedometer, Dial, Single Score.

Creating a Report

- **Methods**:
  - **Reports Application**: Use the "Create New" module.
  - **ServiceNow Studio**: Use the Studio application to create a new report.
  - **From List View**: Create a report directly from an existing list view.

Report Creation Process

- **Steps**:

- Set **title**.
- Choose **source_type** (table or data source).
- Select **table** and set **type** (visualization).
- Configure **group by** field and additional styling.
- **Save** the report.

Scheduling Reports

- **Table**: sys_auto_report
- **Fields**:
  - **sys_id**: Unique ID.
  - **report**: Reference to the report being scheduled.
  - **users**: List of user references.
  - **groups**: List of group references.
  - **email_addresses**: Manually entered email addresses.
  - **run**: Recurrence (daily, weekly, monthly, on-demand).
  - **time**: Time of execution
  - **subject**: Email subject.
  - **introductory_message**: Email body.
  - **condition**: Script for conditional execution.
  - **type**: Attachment type (PDF, Excel, etc.).

Sharing Reports

- **Table**: sys_report_users_groups
- **Options**:
  - Share globally, by role, or with specific users/groups.

Adding Reports to Dashboards

- **Process**:
    - Add reports to dashboards through the dashboard interface or directly from the report's sharing

      options.

Conclusion

- **Action Items**:
    - Create, manage, schedule, and share reports effectively.
    - Add reports to dashboards for better data visualization.
- **Call to Action**: Like, subscribe, and provide feedback.