**ServiceNow System Administrator Training**

**(week-2)**

ServiceNow is a dynamic American company that provides a cloud-based application platform designed to streamline and automate a variety of business processes. Its versatility makes it a valuable tool in sectors such as IT, HR, finance, and security. The platform offers two deployment models: multi-instance, where each organization has its own isolated data and applications, and multi-tenant, where data is shared among multiple customers. To ensure data protection, ServiceNow conducts four full backups each week and six differential backups daily. Security is a priority, featuring single sign-on (SAML 2.0) and role-based access control.

Navigating ServiceNow is intuitive, thanks to its well-structured interface. The User Menu allows users to manage their profiles, impersonate other users, elevate roles, and log out easily. The Global Search feature enables users to search across all tables, providing admins with access to a broader range of results. Internal communication is facilitated through a chat feature, while the Help Icon offers support when needed.

The Settings menu covers general configurations, accessibility options, list and form settings, and development tools. The Application Navigator includes a Filter Navigator for quick searches and a Favorites Tab to manage frequently accessed applications. Additionally, the History Tab helps users track recent activities, minimizing the need for repetitive searches.

Creating and managing modules involves starting new records with "Create New" and handling existing ones through various modules. UI customization in UI 16 enables you to modify the instance name, banner image, and welcome page content to align with your company’s branding. The platform's Lists and Filters include elements such as the main list, title bar, filters, breadcrumbs, and the list context menu for managing data. Filters can be applied, saved, and adjusted, and views can be customized to display data in specific ways, such as a Major Incidents View or Mobile View.

For effective data management, ServiceNow allows users to import data from formats like XML and export it in Excel, CSV, XML, or PDF formats. Updating records is efficient, with options to select multiple entries for bulk updates or to update all displayed records at once. Searching and personalizing lists is made easy with the search function and the "Personalize List Columns" option.

To save and apply filters, users can set conditions and save their filters with specific names and visibility options. Data can be grouped by fields through options in the list view, and lists can be refreshed to reflect changes. Users can save lists as favorites with custom names, colors, and icons, while the List Context Menu allows for sorting, grouping, and creating charts.

**Forms Overview:**

In ServiceNow, forms are essential for data entry and management, featuring several key components such as a content frame, form title, action buttons, and menu options. Users can create new records using the "Create New" button, while "Save" keeps the form open for further edits, and "Submit" saves and closes the form.

Mandatory fields must be filled out before saving or submitting, whereas read-only fields display information that cannot be altered. Different field types enhance functionality, including:

Choice Fields: Provide dropdown options.

Reference Fields: Pull data from other tables, like Caller or Assignment Group.

**Managing Lists and Forms**

Several actions are involved in managing lists and forms:

Saving and Applying Filters: Users can create and save filters to view specific data, which can be shared with others.

List Context Menu: This menu allows sorting, grouping, creating charts, and exporting data.

Form Functionality: Forms support creating, updating, and saving records, handling mandatory and read-only fields appropriately.

Form Layout and Design: Forms can be customized by adjusting layouts and arranging fields, with advanced options for drag-and-drop design.

Templates: Pre-fill fields with common values and schedule automatic record creation to streamline processes.

Knowledge checks are also incorporated to assess understanding of key concepts, such as application visibility for users without roles and interface versions.

**Task Management in ServiceNow**

Task Management in ServiceNow is all about tracking and handling records assigned to users or teams, like incidents, problems, or requests. Each task represents an actionable item that needs attention.

**Task**: A task starts when a user reports an issue, which is then assigned to someone for resolution. Once resolved, the task is marked as completed, updating its status and notifying the user.

Task Table: This is the backbone of ServiceNow's task management, serving as the main table from which other task-related tables (like incidents and requests) derive.

Functionalities:

Approvals: Tasks may need approvals, which can be manual or automated.

Assignments: Tasks can be assigned either manually or automatically.

SLAs: Service Level Agreements help monitor whether tasks are completed on time.

Access: Users must have the right permissions to view and manage their assigned tasks.

SLA Tracking: SLAs ensure tasks meet their deadlines and are set up in the Service Level Management application.

In essence, ServiceNow's Task Management system streamlines how teams handle work, ensuring that issues are addressed efficiently and effectively.

In ServiceNow, you can assign tasks in various ways to meet different needs:

**Task Assignment**

Manual Assignment

Users can directly assign tasks to specific groups or individuals. For instance, when handling an incident, you can choose both an assignment group and a specific user.

Automated Assignment Rules

ServiceNow offers pre-configured rules that automatically assign tasks based on certain conditions. You can set these up in the System Policy under Assignment Rules, ensuring tasks are distributed consistently.

Predictive Intelligence

This feature uses machine learning to predict the best assignment groups and individuals for tasks, improving accuracy based on historical data. It requires a specific plugin and possibly an additional license.

For unique needs, administrators can create custom scripts or rules to tailor task assignments to specific business criteria.

Service Desk Application:

The Service Desk app is the central hub for managing tasks like incidents and requests. Key modules include:

Callers: View all users in the system

Incidents: See all incidents assigned to you

Knowledge: Access helpful knowledge records

My Work: View tasks assigned directly to you

My Group's Work: Check tasks for your group

My Approvals: See tasks awaiting your approval

SLA: Track Service Level Agreements to ensure timely resolutions

These features make task management in ServiceNow flexible and efficient, catering to various organizational needs.

**Effective Task Management**

Work Notes and Comments:

Document task progress with internal work notes.

Use visible comments for team communication.

Activity Stream:

Displays a timeline of all task-related activities.

Provides a complete history of updates and changes.

Email Functionality:

Send custom emails with attachments directly from ServiceNow.

Simplifies information sharing.

Impersonation:

Administrators can view the platform as different users.

Useful for feature demonstrations and troubleshooting.

**Incident Management**

Viewing Incidents

Impersonation: Administrators can view a user’s incidents by taking on their role through the Service Desk application and selecting "My Work."

Working on Incidents

Incident Records: Each record includes important details like state, impact, urgency, assignment group, and who it’s assigned to.

Work Notes vs. Additional Comments:

Work Notes: For internal use, visible only to agents and admins.

Additional Comments: Visible to end users for direct communication.

Activity Stream: Shows a timeline of all actions related to the incident, including notes and emails.

Email Functionality

You can send custom emails directly from the incident record, keeping all communications tracked. Just remember to enable email notifications so users stay updated.

This approach helps teams manage incidents effectively and keeps everyone in the loop for quicker resolutions.

**Notifications Management**

Notifications Management in ServiceNow is essential for effective communication and process automation. It involves two main types of notifications: Outbound Notifications, which inform users of specific events like incident assignments, and Inbound Actions, which process incoming emails to update records.

Most management occurs in the System Notification Module, where you can configure:

Email Notifications: Set up templates and manage email scripts.

Push Notifications: Deliver updates to mobile devices.

Provider Notifications: Handle notifications for agent workspace and virtual agents.

When creating notifications, you define parameters like Digest Intervals to consolidate messages and specify when and to whom notifications are sent. You can also apply Notification Filters to customize user preferences and set Email Access Restrictions for sensitive notifications.

Email Logs track all sent and received emails, helping troubleshoot delivery issues. A practical example includes using impersonation to view notifications from a regular user's perspective, enhancing understanding of how notifications function within the system.

**Notifications**

ServiceNow provides a comprehensive approach to managing notifications, including Email Notifications, Push Notifications, and Provider Notifications. Users can configure these notifications by specifying when they should be sent, who will receive them, and what content they will include. Testing notifications is essential; this can be done by modifying records to ensure that notifications are delivered correctly.

Advanced features enhance the notification system, such as customizable email templates, unique watermarks for tracking purposes, and user options for managing their notification preferences. This flexibility allows organizations to tailor their notification strategies to meet specific needs and improve overall communication efficiency.

**Inbound Actions**

Inbound actions in ServiceNow automate the handling of incoming emails, allowing for the creation or updating of records based on email content. To set one up, you assign a name, choose the target table (like incidents), and specify the action type (create, update, or respond). You also set conditions for when the action should trigger and write a script detailing the actions to take.

There are three types of inbound actions: New Email (for new messages), Reply Email (for responses), and Forward Email (for forwarded messages). Testing is essential; send test emails and check the System Logs to ensure everything works correctly. This automation streamlines workflows and enhances efficiency.

**Knowledge Management**

Knowledge Management in ServiceNow focuses on creating and sharing valuable information through knowledge articles, which include troubleshooting tips, policy documentation, and other resources.

Key Benefits:

Centralized Repository: Users can quickly find answers and resolve issues independently.

Self-Service Capability: Reduces the workload on support staff, allowing them to focus on complex tasks.

Efficiency and Consistency: Ensures users access reliable and up-to-date content.

Key Processes:

Creation: Drafting accurate and relevant knowledge articles.

Feedback: Gathering user input to improve article quality.

Import: Integrating articles from external sources to expand available information.

Overall, effective Knowledge Management enhances productivity and customer satisfaction by providing easy access to essential information.

**Service Catalog**

The ServiceNow Service Catalog is a user-friendly platform that helps organizations manage and deliver various services and products. It acts as a centralized hub, making it easy for users to find and request what they need while tracking the status of their requests. Key components of the Service Catalog include the ability to create and manage different service catalogs, view active requests and tasks, and manage details of catalog items and services. Items are organized into logical groups through categories, allowing users to navigate the offerings more efficiently.

Several roles are involved in managing the Service Catalog, including Admins, who have full access to create and manage items; Catalog Admins, who oversee the catalog application without scripting; Catalog Managers, who edit catalogs and assign roles; and Catalog Editors, who update items without altering catalog managers. Additional features enhance the user experience, such as the Order Guide, which allows users to request multiple items in one go—ideal for onboarding new employees—and the Record Producer, which creates records in existing tables (like incidents) based on user input, simplifying tasks like reporting issues. Overall, the ServiceNow Service Catalog streamlines the request process, making it easier for users to access the services they need efficiently.

**Order Form**

Order forms in ServiceNow are built using Variables, which are fields that gather specific information from users, such as text fields and checkboxes. Variable Sets are collections of related variables that can be applied across multiple forms to maintain consistency. The Workflow tool automates the series of tasks and approvals that occur once a request is submitted, whereas Flows offer a more user-friendly, drag-and-drop interface for creating automated processes.

To create and manage catalogs in ServiceNow, start by navigating to Service Catalog > Maintain Catalogs. Click on "New," enter the catalog’s name and description, then save it. Next, to create a category, go to Service Catalog > Maintain Categories. Click "New," fill in the category details, and save. To add a catalog item, navigate to Service Catalog > Maintain Items, click "New," provide the item details, select the appropriate category, and save.

To add variables to a catalog item, access the item and go to the Variables tab. Click "New," define the variable question and its attributes, and save. If you need to include variable sets, go to Service Catalog > Variable Sets, either create a new set or use an existing one. Add the variables to the set and attach it to the catalog item.

Design workflows by going to Workflow > Workflow Editor, where you can create or modify a workflow and link it to the catalog item. Finally, use Flow Designer to create or adjust a flow. Define the steps and actions needed to handle catalog requests and attach the flow to the catalog item.

Tables in ServiceNow are essential for organizing data and consist of records (rows) and fields (columns). Records represent specific entries, while fields store various types of data. Access and manage tables through the System Definition section in the Application Navigator, where you can view all tables, their configurations, and detailed definitions for each table and field. You can view configurations and columns for specific tables. Indexing enhances search performance and overall efficiency.

**Field Configuration**

Field Configuration involves attributes such as Field Label, Field Name, and Field Value. Fields can be set as read-only or mandatory and these configurations can be adjusted through the dictionary.

**Table Relationships**

Table Relationships define how tables interact with one another. These relationships include One-to-Many, Many-to-Many, and Extended types.

**Types of Tables**

There are different types of tables:

- Base Tables: These are foundational tables such as the Task Table.

- Extended Tables: These tables inherit fields from a parent table, like the Incident Table.

- Core Tables: These are fundamental ServiceNow tables like Incident and Problem.

- Custom Tables: These are tables created to meet specific needs, such as tracking unique metrics.

**Creating and managing Custom Tables**

To create and manage custom tables, use the "New" button in the Tables module. Enter a label and name for the table and define fields like Name (String), Description (String), and Status (Choice). After creation, the table can be utilized to handle specific data.

**Access Control (ACL)**

Access Control (ACL) in ServiceNow determines the permissions users or roles have for performing actions on records within tables. It controls who can create, read, update, or delete records.

**Types of ACLs**

ACLs are divided into three categories:

- Table-Level ACLs: Apply to entire tables.

- Record-Level ACLs: Apply to specific records.

- Field-Level ACLs: Control access to individual fields.

**Operations Restricted by ACLs**

ACLs restrict various actions, including creating, reading, updating, and deleting records. They also manage special operations like executing scripts, adding CMDB relationships, and customizing choice fields.

To import data into ServiceNow, initiate the process by selecting the "Load Data" option within System Import Sets to upload your XML file. After uploading, you can make necessary modifications to the XML file before importing it into the target table. When dealing with Excel files, first create an import set, upload your file, and establish a staging table. Then, develop and save a Transform Map to determine how data will be mapped from the staging table to the target table, and execute the transform process.

Manage data sources and oversee import processes through the Import Sets module, and keep an eye out for any errors. Use coalesce fields to decide whether to update existing records or insert new ones. It is essential to test data imports using policies to ensure accuracy, and review and resolve any issues by examining error messages and adjusting settings as needed.

**Managing CMDB**

In ServiceNow, the Configuration Management Database (CMDB) keeps track of Configuration Items (CIs), such as computers and servers, and their interrelationships. Tools like CI Class Manager and CMDB Quality Builder assist in managing CIs and visualizing their connections.

Key CI fields include:

- Name: The name of the CI.

- Asset Tag: A unique identifier.

- Manufacturer: The maker of the CI.

- Asset: Associated with asset management.

- Class: The type of CI.

- Company: The owner.

- Serial Number: A unique identifier.

- Model ID: The model identifier.

- Assigned To: The person responsible.

- Comments: Additional notes.

**Integration and Update Sets**

ServiceNow supports integrations with various systems, such as CMDB and Single Sign-On (SSO), through methods including Web Services and LDAP. The Integration Hub facilitates third-party connections using Flow Designer.

Update Sets are used to bundle configuration changes for transfer between instances, helping to ensure consistency between development and production environments. Manage these update sets in the System Update Sets application, ensuring a smooth transition from development to production.