ServiceNow System Administrator Training

(Week-2)

ServiceNow is a cloud-based platform (APaaS) used to automate business processes in IT, HR, finance, and security. Its multi-instance architecture ensures each organization has isolated data and applications, with robust backup and security measures like SSO and role-based access control.

Users interact through the native UI, mobile apps like ServiceNow Agent and Now Mobile, or the customizable Service Portal. Authentication methods include local databases, SSO, LDAP, OAuth 2.0, and MFA.

Access is managed through roles, assigned to users and groups, stored in the User and Group Tables as part of the platform's default features.

The Application Development group includes key details like the manager, group members, and any child groups. Roles are assigned to control access, and skills or locations can be added as needed.

Roles are managed through the System Security > Roles module and are best assigned to groups for easier management. Members of a group inherit all permissions from the assigned roles, simplifying access control.

ServiceNow's base system roles include Admin (full access), Approver_User (task approval), ITIL (ITSM access), and Catalog_Admin (service catalog management).

Self-service users have limited access to basic features. Admins can impersonate users to view their access levels. For instance, a user without roles will see only basic functions, while an admin or ITIL user will have broader access.

The User Interface (UI) in ServiceNow starts with a login screen requiring username and password. After logging in, users access the native UI, which defaults to UI 16 but can be switched to UI 15 via Settings > Switch UI Version.

The UI features include the Banner Frame (logo, user menu, global search), Application Navigator (all applications, favorites, history), and Content Frame (displays selected information). UI 15 also includes an additional Edge element.

The User Menu provides options for profile management, user impersonation, role elevation, and logging out. Global Search lets users search across all tables, with admins seeing more results. The chat option allows internal communication within the platform.

For support and customization, the Help Icon offers assistance, while Settings cover general, accessibility, list/form configurations, and development options. The Application Navigator includes a Filter Navigator for quick searches and a Favorites Tab for managing frequently accessed applications or modules.

The History Tab in ServiceNow lets you track recent views and activities for easy reference without additional searches.

To create and use modules, start new records with "Create New" and manage existing records through various modules.

Branding customization in UI 16 allows you to update the instance name, banner image, and welcome page content to match your company’s branding.

Lists and Filters include components like the main list, title bar, and list context menu for managing data. Filters can be applied, saved, and adjusted to display specific records and control the number of records per page.

Views customize how data appears in lists, such as creating a Major Incidents View or Mobile View.

To save and apply filters:

1. Save a Filter: Apply conditions, save, name it, set visibility, and click "Save."
2. Apply a Saved Filter: Select from the saved filters list to automatically apply the filter conditions.

You can group data by fields like State in the list view or by right-clicking a column header and selecting "Group By."

To refresh and manage lists, use the refresh option to update the view and save favorite views with custom names, colors, and icons for easy access from the Application Navigator.

The List Context Menu lets you sort, group, and ungroup data, create charts, and adjust list settings like adding or removing columns.

Import data from formats like XML and export data in formats such as Excel, CSV, XML, or PDF.

For updating records, select multiple records to apply changes with Update Selected or update all displayed records.

To search and personalize lists, use the search option for specific records and adjust list columns by adding or removing fields through Personalize List Columns.

Forms Overview

ServiceNow forms have a structure including a content frame, form title, buttons, and menu options. Use "Create New" to add records, with "Save" to keep the form open and "Submit" to save and close it. Mandatory fields must be completed to save or submit a record, while read-only fields cannot be edited. Choice Fields offer dropdown options, and Reference Fields pull data from other tables.

Lists and Forms

To save and apply filters, create and share filters for quick data access. The List Context Menu lets you sort, group, chart, and export list data. Forms can be customized by adjusting layouts, managing mandatory/read-only fields, and using reference and choice fields.

Templates help pre-fill fields and can be scheduled for automatic record creation. Knowledge Checks assess understanding of user access, interface versions, and application visibility.

Task Management

Overview: Tasks in ServiceNow track actions and progress for records such as incidents, problems, and requests. The typical workflow involves creating an incident, assigning it, resolving it, and then marking it as complete.

Task Table: This foundational table is used by other task-related tables like incidents and requests, inheriting and extending fields.

Key Functionalities:

- Approvals: Manual or automated based on rules.
- Assignments: Manual or automatic via rules.
- SLA Tracking: Monitors if tasks meet resolution times.

Access and Permissions: Users need appropriate access to complete their assigned tasks.

Task Management:

- Task Table: View and group records by type.
- SLA Tracking: Configured in Service Level Management with goals and conditions.
- Assignment: Can be manual, automatic through rules, or predictive with machine learning.

Service Desk Application: Centralizes task access with modules for incidents, requests, and approvals.

Effective Management:

- Work Notes and Comments: Document progress.
- Activity Stream: Shows all related activities.
- Email Functionality: Send emails and attachments.

Impersonation: Administrators can view the platform as different users for demos and troubleshooting.

Incident Management

Admins can view user incidents by impersonating the user and selecting "My Work" in the Service Desk application. Incident records show details like state, impact, and assignment group. Work Notes are for internal updates visible to agents and admins, while Additional Comments communicate with end users. The Activity Stream displays all incident-related activities.

Emails can be sent and tracked directly from the incident record. Ensure email notifications are enabled for proper tracking.

Notifications Management

ServiceNow handles Outbound Notifications for events like incident assignments and Inbound Actions for processing incoming emails. Manage notifications through the “System Notification” module, including Email Notifications, Push Notifications, and Provider Notifications.

Set up notifications with options for Digest Intervals, Notification Types, and configuration details such as triggers, recipients, and content. Use email logs for

tracking and troubleshooting. Admins can use impersonation to demonstrate incident management features effectively.

Notifications

ServiceNow offers Email Notifications, Push Notifications, and Provider Notifications. Configure notifications by setting when they should be sent, who will receive them, and what content they will include. Test notifications by modifying records to ensure proper delivery. Advanced features include email templates, unique watermarks for tracking, and user options for managing notifications.

Inbound Actions

Inbound actions automate record updates based on incoming emails. Set up involves naming the action, specifying the target table, defining the action type (create, update, or respond), setting conditions, and writing any necessary scripts. Test inbound actions by sending emails and reviewing the System Logs for accuracy.

Knowledge Management

ServiceNow's Knowledge Management centralizes and organizes knowledge articles in a knowledge base. Users with appropriate roles can create, manage, and access these articles via the Knowledge application. Articles can be in states such as unpublished, published, or retired, and user feedback helps improve content. Administration includes setting up knowledge bases, managing user access, and configuring workflows. Articles follow a draft-to-publication workflow and can be imported from Word documents.

Service Catalog

The Service Catalog in ServiceNow provides a centralized system for requesting services and products. It allows easy access to various services, tracks request statuses, and supports multiple catalogs. Key modules include managing catalogs, viewing active requests, and organizing catalog items into categories. Catalog items generate tasks for fulfillment and can be organized with parent-child relationships.

The ServiceNow Service Catalog is designed to simplify the process of requesting services and products. It includes several key components. Catalog Items represent the specific services or products available for request, such as software or hardware. These items can be managed by different roles, including Admins, Catalog Managers, and Catalog Editors. Order Guides group multiple catalog items into a single request, which is useful for processes like onboarding new employees, allowing users to request

several items at once. Record Producers create records in various tables, such as incidents or change requests, based on user inputs.

Order Forms and Processes

Order forms are designed with Variables, which are fields that collect specific information from users, such as text fields and checkboxes. Variable Sets are groups of related variables that can be reused across multiple forms to ensure consistency. The Workflow tool automates the sequence of tasks and approvals that occur when a request is submitted, while Flows provide a more intuitive, drag-and-drop interface for creating automated processes.

To create and manage ServiceNow catalogs, start by navigating to Service Catalog > Maintain Catalogs. Click New, enter the catalog name and description, and save.

Next, create a category by going to Service Catalog > Maintain Categories. Click New, fill in the category details, and save.

For adding a catalog item, go to Service Catalog > Maintain Items. Click New, provide the item details, select the relevant category, and save.

To add variables to a catalog item, access the item and navigate to the Variables tab. Click New, define the variable question and attributes, and save.

If you need to add 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 navigating to Workflow > Workflow Editor, where you can create or modify a workflow and attach it to the catalog item.

Finally, use Flow Designer to create or modify a flow. Define the steps and actions for handling catalog requests and attach the flow to the catalog item.

Tables in ServiceNow are crucial for organizing data and consist of records (rows) and fields (columns). Records represent specific entries, while fields hold 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 improves search performance and overall efficiency.

Field Configuration
Fields have attributes such as Field Label, Field Name , and Field Value . Fields can be configured as read-only or mandatory and adjusted in the dictionary.

Table Relationships
Tables can have different relationships: One-to-Many,Many-to-Manyand Extended.

Types of Tables

- Base Tables: Root tables like the Task Table.
- Extended Tables: Tables inheriting fields from parent tables, such as the Incident Table.
- Core Tables: Standard ServiceNow tables like Incident and Problem.
- Custom Tables: Created for specific needs, such as tracking unique metrics.

Creating and Managing Custom Tables
To create a custom table, use the "New" button in the Tables module, enter a label and name, and define fields such as Name (String), Description (String), and Status (Choice). Once created, the table can be used to manage specific data.

Access Control (ACL)
Access Control (ACL) in ServiceNow governs who can perform actions on records within tables. It ensures that users or roles have appropriate permissions to create, read, update, or delete records.

Types of ACLs
ACLs are categorized into three types: Table-Level, which applies to entire tables; Record-Level, which pertains to specific records; and Field-Level, which controls access to individual fields.

Operations Restricted by ACLs
ACLs restrict actions such as creating, reading, updating, and deleting records. They also manage special operations like executing scripts, adding CMDB relationships, and personalizing choice fields.

To import data into ServiceNow, start by using the "Load Data" option in System Import Sets to upload your XML file. After uploading, edit the XML file if needed, then import it into the target table. For importing from Excel, create an import set, upload your file, and

set up a staging table. Next, create and save a Transform Map to define how data should be mapped from the staging table to the target table, then run the transform. Manage data sources and import processes through the Import Sets module, and monitor for errors. Handle coalesce fields to update or insert records as needed, and test data imports with policies to ensure everything is correctly filled. Finally, review and fix any issues by checking error messages and adjusting settings.

Managing CMDB

The CMDB in ServiceNow tracks Configuration Items (CIs) like computers and servers, and their relationships. Use tools like CI Class Manager and CMDB Quality Builder to manage CIs and view their connections.

CI Fields

- Name: CI's name.
- Asset Tag: Unique ID.
- Manufacturer: Maker of the CI.
- Asset: Linked to asset management.
- Class: Type of CI.
- Company: Owner.
- Serial Number: Unique number.
- Model ID: Model identifier.
- Assigned To: Responsible person.
- Comments: Additional notes

Integrations and Update Sets

ServiceNow integrates with systems like CMDB and SSO using methods such as Web Services and LDAP. The Integration Hub enables third-party connections through Flow Designer.

Update Sets bundle configuration changes for transfer between instances, helping maintain consistency across development and production environments. Manage these updates in the System Update Sets application, ensuring clear movement from development to production.