

UNDERSTANDING DOCUMENT

MODULE 1: ServiceNow Platform and Development Fundamentals

KEY TOPICS

1) What is ServiceNow?

Who is ServiceNow?

- Employees: Over 15,000 globally.

- Recognition:

- 19 Best Places to Work – Glassdoor.

- 24 World's Most Admired Companies – Fortune.

- Clients: Includes major companies like AT&T, Coca-Cola, Deloitte, McDonald's, and Microsoft.

- Founder & Chairman: Fred Luddy, who established ServiceNow to address inefficiencies he encountered in IT departments.

- CEO: Bill McDermott (CEO, formerly CEO of SAP).

ServiceNow Timeline

- Founded: 2003 as GlideSoft by Fred Luddy.

- Renamed: Became ServiceNow in 2006.

- Key Milestones:

- #1 in Forbes' Most Innovative Companies (2018).

- Bill McDermott became CEO in 2019.

Why ServiceNow?

Designed to replace inefficient IT service provisions with an intuitive interface that allows business users to solve problems independently, reducing reliance on centralized IT departments.

What is ServiceNow?

- Platform: A cloud-based application platform as a service (PaaS) that caters to both business and IT developer needs, offering infrastructure as well as platform and workflow solutions.

How does ServiceNow Work?

- IT Functionality: Provides the necessary infrastructure, security, and redundancy/backups for enterprise use.
- Data Model: Utilizes a unified enterprise-wide data model and database.
- Workflows: Supports IT, Employee, Customer, and Creator workflows, along with custom workflows and applications.

2) ServiceNow Platform Overview

Platform Architecture

ServiceNow, as a cloud platform, employs a multi-instance architecture with single-tenant environments, meaning each customer has their own dedicated database and isolated resources.

This architecture features a database layer where each customer has a distinct database, ensuring data is well-contained and providing secure storage and access.

Application Layer

It includes essential applications like Incident, Problem, Change, and Request Management. Additionally, it provides developers with the capability to create custom applications on the platform.

ServiceNow Platform Development

Tools like Flow Designer, Integration Hub, and Studio assist in developing custom applications on the Now platform. Middleware facilitates integration with other enterprise systems, primarily achieved through the use of APIs, connectors, and web services (REST/SOAP).

Security and Compliance

This utilizes built-in security features to handle data encryption, threat detection, audit log tracking, and access control operations for all types of sensitive information. It ensures seamless compliance with regulations like GDPR (General Data Protection Regulation) and HIPAA.

Applications and Workflow

To satisfy business requirements across different fields, ServiceNow provides pre-built applications:

- IT Service Management (ITSM): Core ITSM applications like Incident, Problem, Change, and Knowledge Management streamline and govern IT processes.
- IT Operations Management (ITOM): Includes tools for infrastructure management, such as discovery, event management, and cloud management.
- IT Business Management (ITBM): Focuses on IT portfolio management, agile development, and financial applications for IT teams.
- HR Service Delivery (HRSD): Automates HR tasks like new hire onboarding, case management, and employee e-documentation.
- Customer Service Management (CSM): Facilitates automated and efficient customer service interactions with vendor-provided tools.
- Security Operations: Covers incident response, threat intelligence, and vulnerability management.
- Flow Designer: A low-code tool designed for building workflows.
- Integration Hub: Enables third-party integrations to connect different systems.

Role Based Access and Authentication

- Roles: Permissions are assigned as roles, which are then allocated to users. Examples of roles include 'admin,' 'ITIL user,' and 'HR agent.' These roles determine the applications, data, and functions a user can access and perform.
- Groups: Roles can be assigned to groups to streamline management, particularly for users with similar responsibilities. These groups can be linked to specific projects or departments, enhancing work efficiency.
- Authentication: ServiceNow supports various authentication methods for platform access:
 - Local Authentication: Requires a username and password for basic security verification.
 - Single Sign-On (SSO): Allows users to access systems, platforms, or applications with a single set of credentials (e.g., SAML, OAuth, OpenID Connect).
 - Multi-Factor Authentication (MFA): Adds an extra security layer by requiring a verification code, such as one sent to a phone.

- Access Control Rules: These rules define permissions based on user roles and parameters, regulating access to records, fields, and operations within the platform.

3) ServiceNow User Interface Overview

Global Search:

This feature enables users to search across all records within the ServiceNow instance. It allows you to find incidents, changes, knowledge articles, users, and more, all from a single search form.

Steps:

1. Go to the top right corner of your ServiceNow screen where the search option is located, and click on it.
2. Enter a keyword, such as "Incident 12345" or "Knowledge: How to reset a password."
3. Press Enter. ServiceNow will display results from various areas, including incidents, requests, knowledge articles, and more.
4. One can also refine the search by adding parameters, such as limiting the search to specific record types.

Contextual Help:

Unlike traditional help that provides general instructions for an application, Contextual Help offers guidance and instructions specific to the page user is currently using in ServiceNow.

Steps:

1. Navigate to any page, such as the incident form or the request page.
2. Look for the Help icon, which may appear as a question mark or a help button on the top bar.
3. If user is on the correct page, they'll see the Help icon with a brief description below it. Clicking on the icon will open a new panel on the right side, displaying help content such as instructions, articles, or links related to the current page.

4. If user is uncertain about a particular feature, refer to the help guide or articles for additional clarification on how to use that feature correctly.

Connect Chat

Connect Chat is a real-time messaging tool within ServiceNow, allowing users to communicate and share information with others directly within the ServiceNow platform.

Steps:

1. Click on the Connect icon to open the chat sidebar.
2. To initiate a conversation, go to the 'Chat' section, click on the '+' sign, and select or search for a username or group.
3. User can send and format messages in real-time, making it useful for collaborating on shared projects or addressing urgent matters.

Application Navigator

The Application Navigator is the vertical bar on the left side of the screen that organizes and categorizes all applications and modules in ServiceNow by various subtopics.

Steps:

1. On the left sidebar, click on "Application Navigator," where there is a search bar.
2. Enter the name of the application you want to access, such as 'Incident' or 'Change.'
3. The next screen will display a list of modules related to the keyword you entered.
4. You can directly navigate to specific functions, like 'Create New Incident' or 'My Incidents,' by clicking on the corresponding module.
5. Alternatively, you can browse through the applications list manually, exploring different categories to find what you need.

4) ServiceNow Lists and Filters

The ServiceNow List View is a key user interface that allows user to manage records in a tabular format across various modules.

Key Features:

Sorting and Filtering-

Sorting: Click on the column headers to arrange data in ascending or descending order.

Filtering: Use the filter icon to apply criteria that display records based on specific conditions. Filters can be set up with various logic operators, field values, and filter types to refine the records shown.

Tabular Presentation-

Data is displayed in a table where each row represents a record from a ServiceNow table, and each column corresponds to a specific field.

Users can handle multiple records simultaneously, making it easier to manage and work with large datasets.

List Context Menu-

The List Context Menu offers several options for managing your records:

- Export to Excel: Allows user to export the displayed data to an Excel spreadsheet.
- Configure List Layout: Provides options to adjust the columns and their arrangement in the list view.
- Create New Record: Enables user to add a new record directly from the list view.
- Delete a Record: Permits user to remove selected records from the list.
- Right-Click on List Headers: Offers additional context-specific actions for managing columns and data.

Bulk Record Actions-

User can select multiple records to apply actions to all of them simultaneously. Common actions include editing, deleting, or exporting data. Once records are selected, the 'Bulk Actions Toolbar' appears, providing options for performing these bulk operations.

Personalizing List Views-

Users can customize their list views by accessing the "Personalize List" option. This allows them to:

- **Add New Columns:** Include additional columns to display more data.
- **Delete Unwanted Columns:** Remove columns that are not needed.
- **Change Column Position:** Rearrange the columns to suit their preferences.

Search Functionality:

Top Search Bar: Allows full-text search across all records in the table.

Field-Specific Search Bars: Located under each list header, these let user search by the value of individual fields in the list.

Inline Editing:

Inline editing allows user to modify records directly within the list view without switching to the form view, enhancing efficiency.

Action Bar:

Positioned to the right of the list, the Action Bar includes options such as New Record, Filters, and Export Current View.

ACLs (Access Control Lists):

ACLs control what activities can be performed or viewed by users based on their assigned permissions.

Paging Controls:

For large datasets, paging controls at the bottom of the list allow you to navigate between different pages of records.

Grouped List Views:

When creating a list, user can select specific fields and divide the list into subcategories. This organization helps in better visualizing and navigating the data.

Embedded Filters & Queries:

Use parameters to create queries that extract specific records from the overall dataset. These queries can be saved as Favorite Filters or List Reports for future use.

List Layout Configuration:

Users with appropriate privileges can configure the list view for specific tables. This means that when a user with limited privileges accesses the list, they will see only the columns chosen by an administrator.

Export Options:

Lists can be exported in various formats, including Excel, CSV, and PDF. This allows for offline use or sharing with others.

5) Forms in Service Now

What is a Form?

A form in ServiceNow is a user interface component or template used to input, view, and manage data records within a table. Forms are essential for interacting with the pervasive data elements and records in ServiceNow. For example, when a user needs to open an incident record, they use the form associated with the incident record table. Each field in the table is represented by an input component on the form, allowing users to enter or modify data.

Layout:

- Header: Contains action buttons such as Save, Submit, and Delete for managing the record.
- Fields: Input areas corresponding to the columns in the table, allowing users to enter or modify data.
- Sections: Fields are grouped into sections to improve layout and make it easier for users to find specific fields.
- Related Lists: Positioned at the bottom of the form, these lists display records from other tables that are associated with the current table or record.

Types of Form Fields:

- String (Text): Used for entering alphanumeric text.
- Choice: A drop-down list that allows users to select from predefined options.
- Reference: Links to a record in another table, enabling users to select related data.
- Date/Time: Captures date and time information.
- Boolean (Checkbox) Represents true/false values.

- Attachment: Allows users to attach files to the form.

Making Changes:

- Save: Saves the record without exiting the form, allowing user to continue editing.
- Submit: Saves the record and exits the form, applying any changes and returning to the previous page or list view.
- Cancel: Exits the form without saving any changes made.
- Insert: Creates a new record and redirects the user back to the list view or previous page.
- Insert & Stay: Creates a new record and keeps the user on the form, enabling continued work with the newly created record.

6) Introduction to Importing Data in ServiceNow

The series focuses on setting up and executing standard data imports in ServiceNow, covering data sources, import sets, transform maps, field maps, and data import scheduling.

Import Process in ServiceNow:

The data import process involves three key entities:

- Source Data Entity: The original location where the data is sourced from.
- Staging Table (Import Set Table): An intermediary table automatically created by ServiceNow to temporarily hold the data before it is transformed and transferred to the target data entity.
- Target Data Entity: The final destination where the data is imported after processing.

7) Creating a Data Source in ServiceNow

ServiceNow imports data using an intermediary table known as the "import set table" or "staging table" to bridge the source data and the target entity.

Data Source Creation: A data source is a record in ServiceNow that stores parameters about the source data, such as type, connection details, and data format.

Process: Involves defining the source type, specifying the data to import, and naming the staging table.

Navigating to Data Sources:

- Access: Data sources can be accessed via the Application Navigator or by typing "sys_data_source.list" in the filter navigator.

Steps to Create a Data Source:

1. Click the "New" button to create a new data source.
2. Provide a name and label for the staging table (e.g., "Test Import").
3. Select the source type (file, JDBC, REST, etc.) and enter additional connection details based on the selected type.

Completing the Data Source:

- After attaching the file or configuring the connection details, save the data source.
- ServiceNow will then proceed to import data into the staging table based on the configured data source settings.