ServiceNow Platform and Development Fundamentals

What is ServiceNow?

ServiceNow is a cloud-based platform designed to streamline IT services for large enterprises, enabling business users to solve problems independently.

Highlights

- **Founding and Evolution**: ServiceNow was founded in 2003 by Fred Luddy, transitioning from GlideSoft to its current name in 2006.
- **Global Presence**: The company has over 17,000 employees and operates worldwide, with data centers across multiple regions.
- **Recognition**: ServiceNow has been acknowledged as one of the best places to work and is frequently listed among the most innovative companies.
- **Cloud-Based Platform**: The NOW Platform offers a wide range of IT applications and workflows, allowing users to create custom solutions.
- **Mission**: ServiceNow aims to enhance IT services, making them more intuitive and accessible for business professionals.

ServiceNow Platform Overview

Introduction

- Series focus: Learning for ServiceNow system administrator certification.
- Episode: Lesson two of ServiceNow Fundamentals.
- Topics: Platform overview, architecture, applications, workflows, user interfaces, and role-based access.
- Ending: Introduction to obtaining a personal ServiceNow instance.

Fred Luddy and ServiceNow Origins

- Founder: Fred Luddy, founded ServiceNow in 2004.
- Motivation: Dissatisfaction with IT staff making business people seem uninformed. Aim to enable business people to solve problems with intuitive technology.
- Interesting Fact: Fred Luddy, a college dropout, now has a net worth of \$1.3 billion.

NOW Platform Overview

- Application Platform as a Service (aPaaS): Combines aspects of Infrastructure as a Service (laaS), Platform as a Service (PaaS), and Software as a Service (SaaS).
 - Infrastructure: Provides cloud-based infrastructure and compute resources.
 - o **Platform**: Manages operating systems, patches, and software for development.
 - Applications: Offers a suite of out-of-the-box applications while allowing custom development.

Platform Architecture

- **Single Common Database**: Entire platform uses a single database and data model, supporting various functions across the organization.
- Multi-Instance Architecture: Each customer has a separate instance for better control and less intermingling of data.
- Availability and Redundancy: Redundancy built into every layer—devices, power, and network resources.
- Backups and Security:
 - o **Backups**: Four weekly full backups and six days of differential backups.
 - o **Security**: Certified by third-party security organizations.
- **Domain Separation**: Allows separation of applications and administrative tasks into different domains for better security control.

User Interfaces

- Now Platform UI: Primary interface, best used on desktop or laptop.
- Mobile Apps:

- ServiceNow Agent App: For fulfilling requests.
- o **Now Mobile App**: Employee-specific functionality.
- ServiceNow Onboarding App: For new hires.
- Service Portal: Customizable web-based interface for specific user groups using widgets.

Role-Based Access and Authentication

Entities:

- o **User**: Person with access to the instance.
- o **Group**: Set of users with common functions and access needs.
- o **Role**: Collection of permissions; can be assigned to users or groups.

Authentication:

- o Local Database Authentication: Default method.
- o **Other Methods**: Supports LDAP, OAuth 2.0, digest tokens, and multi-factor authentication.

ServiceNow User Interface Overview

This chapter walkthrough provides a comprehensive overview of the ServiceNow platform user interface. Here's a breakdown of the key points covered in the video:

Overview of Main Screen Elements

1. Banner Frame:

- Logo: Click to return to the home page.
- o **User Menu**: Access profile settings, impersonate users, elevate roles, or log out.
- o Tools:
 - Global Search: Search across the entire instance.
 - Connect Chat: Internal chat tool for real-time communication.
 - **Help Tool**: Provides contextual help and access to documentation.
- System Settings Gear: Customize the UI, including general settings, theme, accessibility, list and form settings, notification settings, and developer tools.

2. Application Navigator:

- Navigation Filter: Search for applications and modules quickly.
- o Tabs:
 - All Applications: Shows all available applications and modules.
 - **Favorites**: Access frequently used applications or records.
 - **History**: View the last 30 items visited.
- Hierarchy:
 - Applications: Top-level categories.
 - Modules: Specific functions within applications.
 - **Separators**: Grouping mechanism for modules.

Detailed Demonstration

1. User Menu:

- o **Profile**: Modify personal settings like email and time zone.
- o Impersonate User: View the system as another user to diagnose issues.
- Elevate Roles: Lock high-impact functions to prevent accidental errors.
- Log Out: Exit the ServiceNow instance.

2. **Tools**:

- Global Search: Search results categorized by record type.
- Connect Chat: Start and manage internal chats.

o **Help Tool**: Contextual help and documentation access.

3. System Settings:

- General Settings: Configure UI compactness, shortcuts, home page, date/time format, and time zone.
- o **Theme Settings**: Customize color schemes for different instances.
- Accessibility Settings: Adjust for accessibility needs.
- o **List and Form Settings**: Customize how lists and forms are displayed and managed.
- o **Notification Settings**: Manage notifications and their channels.
- Developer Settings: Set preferences for development tools.

4. Application Navigator:

- o Filter Function: Quickly find applications and modules by keyword.
- Favorites: Add frequently used items for quick access.
- o **History**: Return to recently accessed items.
- Hierarchy and Navigation: Manage and navigate through applications and modules.

Practical Tips

- Use the **System Settings** to tailor the UI to personal preferences and improve efficiency.
- Utilize the **Application Navigator**'s filter to manage long lists of applications and modules.
- Leverage Favorites and History tabs for faster navigation to commonly used items.

The chapter concludes with a demonstration in a personal ServiceNow instance, highlighting practical use of each UI component and feature discussed. This hands-on approach helps solidify understanding of how to effectively navigate and customize the ServiceNow interface.

ServiceNow Branding Overview

Introduction to Branding in ServiceNow

- **Overview**: This episode focuses on customizing the out-of-the-box ServiceNow user interface to align with your company's branding.
- **Objective**: Learn how to apply corporate branding elements such as logos, colors, and fonts to personalize the ServiceNow interface.

Lesson Recap

- **Branding Purpose**: Make the ServiceNow interface reflect your company's identity to enhance user comfort and speed up adoption.
- **Components**: Includes customization of logos, colors, fonts, and other visual elements.
- **Certification Relevance**: Limited terminology required for certification exams, but useful for practical application.

Guided Setup Overview

- **Guided Setup Wizards**: Step-by-step tools provided by ServiceNow to assist with various setup tasks.
- Types:
 - ITSM Guided Setup: Includes company branding, connectivity, foundational data, and other ITSM components.
 - ITOM Guided Setup: Focuses on IT Operations Management tasks such as configuring MID servers and cloud provisioning.

Branding Steps in Guided Setup

1. Accessing Guided Setup:

- Use the Application Navigator to search for "Guided Setup."
- Navigate to the ITSM Guided Setup module.

2. System Configuration:

- o Tasks:
 - Configure default settings like time zones and date formats.
 - Upload your company logo.
 - Customize the banner frame, browser tab text, background colors, and text separator colors.
- Demo: Change page header caption and browser tab title. Update other visual elements and save changes.

3. Welcome Page Customization:

- Purpose: Modify the login page with custom messages or alerts.
- o Process:

- Add new items or messages to the welcome page.
- Set display order and enter the message content.
- o **Demo**: Create a new welcome message and adjust its display order.

Final Notes

- **Branding Goals**: Personalize the ServiceNow interface to reflect your company's branding, enhancing user experience and adoption.
- Additional Tools:
 - o **Service Portal**: Customizable widget-based interface.
 - o **UI Builder**: Allows for advanced screen design and customization.
- **Guided Setup Summary**: Use guided setup wizards to efficiently apply branding and other configurations.

ServiceNow Lists and Filters

Introduction to ServiceNow Lists

- Overview: ServiceNow lists and list views display database table contents, essential for managing incidents, problems, tasks, etc.
- **Resource**: Jeff from servicenowsimple.com introduces the lesson, encourages subscription and mentions resource links in the description.

Accessing Lists in ServiceNow

- Application Navigator: Use links to access various lists (e.g., Incident).
- Dot List Command: Use table_name.list (e.g., incident.list, task.list) to open lists for specific tables.
- Tables of Tables: sys db object.list opens the list for all tables.

List Interface Overview

- Title Bar: Contains the list control menu with icons and functions for list management.
- Data Rows/Columns: Represents records and attributes from the table.

List Control Menu

- View: Select and save different views with specific filters and sorting.
- Filter: Create and apply saved filters to display specific records.
- **Group By**: Group data by any column to see records categorized.
- Show: Adjust the number of records displayed per page.
- Refresh: Reloads the list.
- Favorites: Add lists to favorites for quick access with specific settings.

List Header Tools

- Personalized List Tool: Customize columns (add, remove, reorder) without affecting other users.
- Filter Icon: Opens the Condition Builder for advanced filtering.
- **Column Search**: Search within specific columns with wildcard options.
- Breadcrumbs: Indicate applied filters and allow navigation or removal of filters.

Column Labels and Context Menus

- Column Labels: Derived from database field labels; clicking toggles sorting.
- Column Context Menu: Options like visual task boards, charts, export, update records.

Field Context Menu

• Options: Includes "Show matching," "Filter out," "Copy URL," "Copy Sys ID," "Assign tag."

Record Selection and Preview

• Checkboxes: Select multiple records for bulk actions.

- Actions on Selected Rows: Execute actions on selected records.
- Information Icon: Provides a quick preview of the record.

Detail View Access

- Linked Column: First column usually links to the record's detail form.
- Reference Data: Fields may link to details from other tables (e.g., Caller).

Forms in ServiceNow

Lesson Overview

- **Topic**: Forms in Servicenow.
- **Forms Definition**: Interfaces for viewing, changing, or creating single records in Servicenow.

Examples of Forms

- Incident Record Form: Example shown for an existing record.
- User Record Form: Example shown for an existing user and creating a new user record.

Form Components

- **Header Bar**: Displays record type, data table, and record name.
- Fields: Main section with various data types (string, Boolean, choice, reference).
 - o Reference Fields: Pull values from other tables.
 - o List Fields: Populate multiple values.
 - o **Journal Fields**: Notes visible to different users (e.g., work notes vs. additional comments).

Field Dependencies

• **Dynamic Field Behavior**: Fields may appear or disappear based on other field values (e.g., on hold reason).

Saving Changes

- **Submit vs. Update**: Save changes and close the form.
- Save Menu: Save changes but keep the form open.
- Unsaved Changes Warning: Notification if navigating away with unsaved changes.

Creating Records from Templates

- **Templates**: Automatically populate fields when creating a new record.
- Template Bar: Toggle on/off to access and create templates.
 - Example: Hardware incident template.

Form Sections

- **Sections**: Group and organize fields, displayed as tabs or collapsible containers.
- User Preferences: Option to organize sections as tabs via user menu.

Related Lists and Formatters

- Related Lists: Display lists of related records (e.g., user roles).
- **Formatters**: Special elements that display additional record-related information (e.g., activity history).

Form Views

• **Purpose**: Different views for different users (e.g., admin vs. self-service user).

- **Switching Views**: Use the form context menu to select different views.
- Form Personalization: Users can tweak displayed fields for their own view.

Attachments

Manage Attachments: Attach files to records (e.g., screenshots).

Form Templates

- Purpose: Auto-populate fields based on templates.
- Creating Templates: Via the template bar on the form.

Creating and Editing Form Views

- Form Design Tool: Drag and drop interface for creating views.
- Form Layout Tool: Older method for adding/removing fields in a traditional manner.

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.
- o Companies get URLs for their ServiceNow instances (e.g., Production, Test, Development).
- o 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.
- o Contextual Help: Access knowledge-base articles and help tools.
- o **Application Scope Picker**: Admin tool for managing application access.
- o **Global Search**: Search across the entire platform.
- o **Contextual App Pill**: Shows current location within the platform.
- Favourites: Save frequently accessed screens or applications.
- Admin Menu: Admin-specific tools.
- o Workspaces: Single screens with multiple widgets for specific tasks.
- o **History**: Track recent screens or actions.
- o **Favourites**: Mark important screens or applications for easy access.
- All Menu: Access all applications, including custom ones.

ServiceNow Application Offerings

Workflows:

- o **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.
 - o Filters: Apply and save filters to customize list views.
 - o **Condition Builder**: Build sophisticated filters using AND/OR conditions.
 - o **Personalized List**: Customize the display of list fields for individual users.
 - o 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.
 - o **Show Pie Chart**: Visualize data in a pie chart.
 - o **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.
 - o **Insert and Stay**: Create a new record based on an existing one.
 - Export Record: Export record data.
 - o **Custom Views**: Create and switch between different views for specific needs.
 - o **Personalize Form**: Adjust fields and layout for personal preferences.
 - o 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.
 - o **Edit**: Modify article content (if permissions allow).
 - o Rate: Provide feedback on article usefulness.
 - o **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:
 - o **Source Data**: The original data to be imported.
 - o **Staging Table**: Temporary table created by ServiceNow.
 - o **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'
 - o Access: Use Application Navigator or filter navigator ('sys data source.list').
- Create a New Data Source:
 - o **Action**: Click "New" to open the form for creating a data source.
 - o **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).
 - o **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:
 - o **Access**: Use 'sys_data_source.list' in the Application Navigator.
 - o **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.
 - o **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.
 - o **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:

- o 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:

- o 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:

- o Coalesce field used to prevent duplicate records.
- o 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

o Shows 5 field maps created.

• Transform Maps Table:

Table: CIS_transform_map

o 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.
 - o **Approvals:** Manage approval processes manually or automatically.
 - o 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:
 - o **User Presence:** View and update records simultaneously with others.
 - o **Real-Time Editing:** See updates as they happen.

Visual Task Boards

- **Purpose:** Provide a graphical, drag-and-drop interface to manage tasks.
- Components:
 - o Cards: Represent tasks.
 - o Lanes: Group tasks by attributes (e.g., category).
 - o **Quick Panel:** For filtering and user assignment.
- Types of Boards:
 - o **Guided Boards:** Created from lists with predefined attributes.
 - o 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:
 - o **sys_report**: Stores records for each report.
 - sys_report_source: Stores reusable queries for reports.
 - o **sys_auto_report**: Manages scheduling and emailing of reports.
 - o **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.
 - o **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.
 - o table: Primary table for report data.
 - field_name: Field used for grouping data.
 - o **filter**: Conditions to filter data for the report.
 - o **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:

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

Report Creation Process

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

Scheduling Reports

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

Sharing Reports

- Table: sys report users groups
- Options:
 - o 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:
 - o Create, manage, schedule, and share reports effectively.
 - o Add reports to dashboards for better data visualization.
- Call to Action: Like, subscribe, and provide feedback.