**Module 1 - ServiceNow Platform and Development Fundamentals**

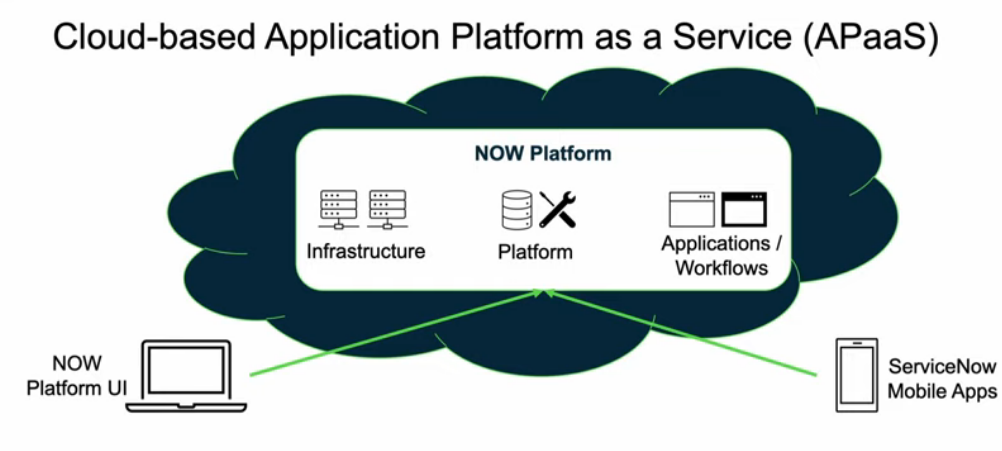
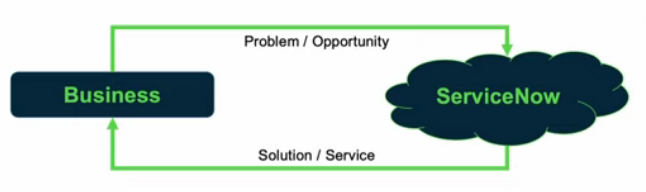
(Understanding Document)

**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 (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS).
  + **Infrastructure**: Provides cloud-based infrastructure and compute resources.
  + **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**:
  + **Backups**: Four weekly full backups and six days of differential backups.
  + **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.
  + **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**:
  + **User**: Person with access to the instance.
  + **Group**: Set of users with common functions and access needs.
  + **Role**: Collection of permissions; can be assigned to users or groups.
* **Authentication**:
  + **Local Database Authentication**: Default method.
  + **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.
   * **User Menu**: Access profile settings, impersonate users, elevate roles, or log out.
   * **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.
   * **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**:
   * **Profile**: Modify personal settings like email and time zone.
   * **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.
   * **Help Tool**: Contextual help and documentation access.
3. **System Settings**:
   * **General Settings**: Configure UI compactness, shortcuts, home page, date/time format, and time zone.
   * **Theme Settings**: Customize color schemes for different instances.
   * **Accessibility Settings**: Adjust for accessibility needs.
   * **List and Form Settings**: Customize how lists and forms are displayed and managed.
   * **Notification Settings**: Manage notifications and their channels.
   * **Developer Settings**: Set preferences for development tools.
4. **Application Navigator**:
   * **Filter Function**: Quickly find applications and modules by keyword.
   * **Favorites**: Add frequently used items for quick access.
   * **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**:
   * **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.
   * **Process**:
     + Add new items or messages to the welcome page.
     + Set display order and enter the message content.
   * **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**:
  + **Service Portal**: Customizable widget-based interface.
  + **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).
  + **Reference Fields**: Pull values from other tables.
  + **List Fields**: Populate multiple values.
  + **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.
  + 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.

**End of Module - 1**

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