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**Cognizant Digital Nurture 3.0** – Week-1 Understanding Document

**What is ServiceNow?**

1. Fred Luddy is the founder of ServiceNow.
2. It is a Cloud-Based Application Platform as a Service (APaaS).
3. It solves large enterprise face with traditional IT delivery by providing a robust, simple to use, cloud-based environment in which businesspeople can solve the business problems themselves.

**ServiceNow Platform Overview.**

1. Now Platform is an APaaS.
2. It is cloud based.
3. ServiceNow provides and supports the infrastructure computer resources.
4. It provides a platform upon which you can develop your own solutions.
5. It comes with 4 types of workflows: IT, Employee, Customer, Creator.
6. Its architecture consists of Enterprise Cloud, Availability and Redundancy, Back-ups & Security, Domain Separation.
7. It is accessible via Now Platform UI, Mobile Apps and Service Portal.
8. It has a Role-based Access. User, Group, Role.

**ServiceNow User Interface Overview**

1. Platform UI Basics: The ServiceNow User Interface (UI) consists of three main elements: the Banner Frame (top), Application Navigator (left sidebar), and Content Frame (main workspace).
2. Banner Frame Overview: The Banner Frame includes the ServiceNow logo (home button), user menu, system settings, and tools like global search and Connect Chat.
3. User Menu Functions: The user menu allows access to personal profile settings, user impersonation (for admins), role elevation, and logout.
4. System Settings: Users can customize general settings, theme, accessibility options, and developer tools through the system settings menu in the Banner Frame.
5. Application Navigator: Located on the left, the Application Navigator is the primary tool for accessing applications and modules within ServiceNow.
6. Navigation Filter: The Navigation Filter helps quickly find applications and modules by filtering results as you type.
7. Application Navigator Tabs: The Navigator has tabs for All Applications, Favorites, and History, making it easier to access frequently used or recently viewed items.
8. Global Search: The Global Search tool allows users to search the entire ServiceNow instance for records, modules, or information based on keywords.

**ServiceNow Branding Overview**

1. Branding in ServiceNow involves using company-specific colours, fonts, and logos to create a familiar user experience.
2. Guided setup wizards in ServiceNow simplify the process of applying company branding across the platform.
3. The lesson covers configuring system settings like time zones, logos, and banner text, as well as setting up the welcome page.
4. ITSM and ITOM guided setup modules are used to configure the company's look and feel, among other settings.
5. Additional personalization options include ServiceNow Portal and UI Builder, though not covered in detail.

**ServiceNow Lists and Filters**

1. ServiceNow Lists: Lists display data from database tables, including incidents, problems, tasks, etc., with a list view available for every table.
2. Accessing Lists: Lists can be accessed via the Application Navigator, using the dot list command (e.g., `task.list`), or by exploring the `sys\_db\_object.list` table for all tables.
3. List View Interface: Includes a title bar with options like the list control menu, which allows for saving and selecting views, applying filters, and grouping data.
4. Filters and Views: Users can create and apply saved filters and views to customize the display of list data, with the option to save these settings for broader use.
5. Grouping and Paging: Lists can be grouped by columns, and users can set the number of records displayed per page, with paging controls for navigation.
6. Personalization and Filtering: The list view can be personalized with column adjustments and sorting. The condition builder tool allows for complex filtering with multiple columns.
7. Activity Stream: If the table tracks activity, an activity stream icon shows a history of actions related to the list.
8. Column Tools: Columns can be sorted, and additional options include visual task boards, charts, and export functions.
9. Context Menus: Right-click menus provide options for filtering, copying URLs or sys IDs, tagging records, and more.
10. Multi-Record Actions: Checkboxes enable the selection of multiple records for batch actions, and quick previews of records can be accessed directly from the list view.

**Forms in ServiceNow**

1. **Forms Definition**: Forms are used to view, change, or add data to records in ServiceNow, similar to HTML forms.
2. **Form Structure**: Each form includes:
3. **Header Bar**: Displays record type and data table.
4. **Main Section**: Contains fields for record attributes.
5. **Additional Sections**: Group fields, related lists, and formatters.
6. **String Fields**: Simple input fields.
7. **Boolean Fields**: Checkboxes.
8. **Choice Fields**: Drop-down lists.
9. **Reference Fields**: Values pulled from other tables.
10. **Field Dependencies**: Fields can change visibility based on other fields' values, managed by UI policies.
11. **Saving Changes**: Changes need to be manually saved using "Submit," "Update," or "Save." Unsaved changes prompt warnings when navigating away.
12. **Record Creation**: New records can be created by copying existing ones using "Insert" or "Insert and Stay" options.
13. **Form Views**: Different views can be created and saved to display forms differently based on user needs. Users can personalize views, affecting only their sessions.
14. **Templates**: Templates auto-populate fields for new records to save time. They can be created and managed from the template bar.
15. **Form Design Tools**: Two tools for designing and editing form views:
16. **Form Design Tool**: Drag-and-drop interface, more sophisticated.
17. **Form Layout Tool**: Traditional method for adding/removing fields.

**A Hands-on ServiceNow Tool Demo**

1. **Access and Instances**: ServiceNow is a cloud-based platform offering IT services, including compute resources, scaling, security, and database management. Companies receive URLs to access their instances, which include Production, Test, and Development environments.
2. **User Interface**: The main interface is called the Next Experience UI, which includes navigation options like the user menu, notifications, contextual help, application scope picker, global search, and workspaces.
3. **Applications and Workflows**: ServiceNow includes a wide range of applications divided into four primary workflows: IT, Employee, Customer, and Creator workflows. Each workflow contains various applications catering to different needs.
4. **Navigation and Lists**: Users interact with lists and forms to manage records. Lists display multiple records and can be filtered and sorted, while forms display single records for detailed view and modification.
5. **Customization and Search**: The platform allows for extensive customization of views, filters, and search functionalities. Users can create favourites, use condition builders, and apply filters to manage and locate data effectively.
6. **Certification and Training**: ServiceNow offers various certifications and training options for users to enhance their skills and knowledge of the platform.
7. **Knowledge Base**: ServiceNow includes a knowledge base for publishing articles and documentation to help users solve problems and find information efficiently.

**Introduction to Importing Data in ServiceNow**

* 1. ServiceNow components like data sources, import sets, transform maps, field maps, and data import scheduling.
  2. Importing data typically involves a source data entity and a target entity.
  3. ServiceNow introduces an intermediary entity called an import set table (or staging table) between the source and target.
  4. The staging table is automatically created by ServiceNow when an import starts and does not require manual creation.
  5. The process involves three main components: the source data, the staging table, and the target data store.

**Creating a Data Source in ServiceNow**

* 1. Data Source Definition: A data source specifies how to connect to the source of data, what data to import, and how to name the staging table (import set table) that temporarily holds the data.
  2. Table for Data Sources: Data sources are stored in the sys\_data\_source table in ServiceNow. Users can view and manage these records using the application navigator.
  3. Creating a Data Source: To create a data source, click "New" in the data source list, fill in the name, and set parameters for the staging table, such as its label and table name.
  4. Types of Data Sources: ServiceNow supports various data source types, including file (e.g., CSV, Excel), JDBC databases (e.g., Oracle, SQL Server), LDAP, and custom scripts.
  5. File Data Source Setup: For a file-based data source, specify the file format (e.g., Excel), sheet number, and retrieval method (e.g., attachment).
  6. JDBC Data Source Setup: For JDBC databases, provide database connection details, including type (e.g., MySQL, Oracle), server name, port, and credentials.
  7. Import Data Configuration: Define what data to import by selecting either all rows from a table or a specific SQL query. Configure parameters based on the data source type.
  8. Attaching the File: Attach the data file (e.g., Excel) to the data source record and configure the file's header row, which defines fields for the staging table.

**Understanding Import Sets in ServiceNow**

* 1. **Data Source Creation**: Previously, a data source was created to define the connection and data to be imported. The staging table's name and label were also specified in the data source record.
  2. **Testing the Connection**: After setting up the data source, it's tested to ensure ServiceNow creates the staging table and loads data into it.
  3. **Staging Table Creation**: ServiceNow checks if the staging table exists. If not, it creates the table according to the parameters and loads data from the data source.
  4. **Loading Data**: The transcript details a test run where an Excel file with five rows is used. ServiceNow creates the staging table, loads the data, and confirms successful import.
  5. **Reviewing Staging Table**: After the import, the staging table contains the imported records. The layout of the table is reviewed to confirm that columns and data are as expected.
  6. **Multiple Imports**: Running the import again adds more records to the staging table. Each import is tracked by an entry in the import set table, which records the details of the import process.
  7. **Import Set Table**: The import set table (sys\_import\_set) is used to manage records by import run, showing which records were imported in each run.
  8. **Data Management**: The staging table now has records from multiple import runs. Each record in the staging table links back to its respective import set.

**ServiceNow Transform Maps & Field Maps**

* 1. Field Maps: Defines how data is mapped from fields in the staging table to fields in the target table. Each field mapping is recorded as a field map in ServiceNow.
  2. Transform Maps: Serve as a grouping mechanism for field maps. Each transform map organizes field maps into a single unit for import purposes.
  3. Custom Table: We can customize the tables.
  4. Creating Transform Maps: Start by creating a transform map record specifying the source (staging table) and target (final table).
  5. Field Mapping Process: Use mapping assist in ServiceNow to automatically or manually create field map records that define how fields from the staging table map to the target table.
  6. Coalesce Field: Used to prevent duplicate records by identifying a unique key or field for matching existing records during import.
  7. Final Steps: After creating field maps and transform maps, test the import process to ensure data moves correctly from the source to the target table.

**ServiceNow Incident Management Tutorial and Task Administration**

* 1. Purpose: ServiceNow aims to make work tasks efficient with a primary focus on task management through the task table, a core component of the platform.
  2. Task Table: Tasks in ServiceNow are records in the task table, which include attributes like description, status, due date, and assignee. The task table is extended by specific tables such as change requests, incidents, and problems.
  3. Hierarchical Design: Task records are not created directly in the task table; instead, records are created in extended tables, which then manage the task records.
  4. Business Value: Task management in ServiceNow enables efficient task handling through assignment rules, approvals, SLAs, and workflows. This includes automating task assignments and monitoring task inactivity.
  5. Assignment Rules: These rules automatically assign tasks based on predefined conditions. They are managed in the assignment rule table and are processed in execution order.
  6. User and Group Management: Tasks can be assigned to users or groups. Assignment rules can be used to automate this process, and users can belong to multiple groups or be part of group hierarchies.
  7. User Collaboration: ServiceNow includes features for real-time collaboration, such as user presence indicators and real-time editing, which help multiple stakeholders work on tasks simultaneously.
  8. Visual Task Boards: Provides a graphical way to view and manage tasks. Includes guided, flexible, and freeform boards to categorize and manage tasks visually.
  9. Types of Boards:
* Guided Boards: Created from lists and use predefined values for lanes.
* Flexible Boards: Created from lists but use non-predefined attributes for lanes.
* Freeform Boards: Personalized boards for managing tasks without ties to existing records.

**ServiceNow Reporting Tutorial**

1. Introduction to Reporting in ServiceNow: The tutorial emphasizes a data-driven approach to learning ServiceNow, starting with understanding the underlying data model and reporting functionalities.
2. Key Database Tables:

* sys\_report: Stores records for each report, including title, source type, and associated fields.
* report\_source: Holds saved queries for data retrieval.
* scheduled\_email\_of\_reports: Manages report scheduling and emailing.
* report\_users\_and\_groups: Handles report sharing with users or groups.
* dashboard: Allows adding reports to dashboards for combined data views.

1. Common Report Fields:

* sys\_id: Unique identifier for each report.
* title: Name of the report.
* source\_type: Indicates if the data source is a table or data source record.
* table: Specifies the primary database table for the report data.
* field\_name: Defines the field within the table for grouping data.
* filter: Contains conditions for narrowing down report data.
* type: Determines the visualization type (e.g., pie chart, bar chart).

1. Creating Reports:

* Reports can be created via the reports application, ServiceNow Studio, or from an existing list view.
* The process involves setting up the report’s title, source type, data table, visualization type, and grouping.

1. Scheduling Reports:

* Reports can be scheduled to execute and email on a recurring basis using the sys\_auto\_report table.
* Fields include scheduling frequency, time, recipient users/groups, and email content.

1. Sharing Reports:

* Reports can be shared with individual users, groups, or globally via the sys\_report\_users\_groups table.

1. Adding Reports to Dashboards:

* Reports can be added to dashboards by selecting the report and choosing to add it to a specific dashboard and tab.

**What is Low Code No Code Development?**

1. **Cast of Characters:**

* **Savvy Business Person:** Knows business processes and seeks to enhance productivity and cut costs.
* **IT Superstar:** Highly skilled in tech with extensive training and certifications, but often struggles with communication and complexity.
* **The Wall:** Represents the barriers between business needs and IT solutions, causing frustration and inefficiencies.

2. **Traditional Development Challenges:**

* Business ideas require extensive IT resources, including coding and design, leading to a frustrating back-and-forth process between business and IT.
* Iterative development approaches help but still face limitations.

3. **Introduction to Low Code No Code (LCNC):**

* LCNC simplifies technology use by removing technical barriers, allowing business users to build and manage solutions without deep coding knowledge.
* Tools like ServiceNow’s App Engine Studio and UI Builder, and other platforms like Microsoft PowerApps, Zoho, and Salesforce, provide intuitive interfaces and automation.

3. **Benefits of LCNC:**

* Enhanced agility, faster time to market, reduced costs, and increased automation.

4. **Limitations:**

* Simplification can reduce flexibility and options, and the underlying code is still present.

5. **Career Implications:**

* Business professionals should explore and learn technical skills, seek opportunities for process improvement, and use LCNC tools creatively.
* IT professionals should focus on supporting business users and be open to the potential of their roles evolving or being reduced due to LCNC solutions.