Cognizant Digital Nurture 3.0 | Deep-skilling program

Week 1 Report

Name: Bharath Rajashekar

USN: 1DT21CG008

College: Dayananda Sagar Academy of Technology and Management

Superset ID: 5099403

1) What is ServiceNow?

ServiceNow is a software company founded in 2003 in Santa Clara, California, by Fred Luddy. It provides a cloud-based platform that enables businesspeople to solve IT-related business problems efficiently, bypassing traditional IT service delivery issues.

1. **Who is ServiceNow?**
    - **Employees**: Over 17,000 globally, recognized as a great place to work.
    - **Customers**: Targets mid to large enterprises like AT&T, Coca-Cola, Microsoft, and more.
    - **Leadership**: CEO Bill McDermott, formerly CEO of SAP, and founder Fred Luddy, who started ServiceNow after the bankruptcy of Peregrine Systems.
2. **When is ServiceNow?**
    - Founded in 2003 as GlideSoft, renamed to ServiceNow in 2006.
    - Went public in 2012 under the ticker NOW.
    - Achievements include being named the #1 Most Innovative Company by Forbes in 2018.
3. **Why ServiceNow?**
    - Fred Luddy founded ServiceNow to address the inefficiencies and frustrations between IT departments and business operations. He envisioned a platform where IT services were designed to empower businesspeople to solve problems themselves, eliminating the traditional barriers and frustrations associated with IT.
4. **How does ServiceNow work?**
    - **NOW Platform**: A cloud-based Application Platform as a Service (APaaS) that provides the necessary infrastructure, security, redundancy, and applications to support business IT needs. It allows businesses to connect via PCs or mobile devices and includes a wide range of pre-built applications and the ability to create custom workflows.
5. **Where is ServiceNow?**
    - Based in Santa Clara, California, with offices and data centers across the globe, including North America, Europe, Asia Pacific, and more.

Cognizant Digital Nurture 3.0 | Deep-skilling program

2) ServiceNow Platform Overview

1. **Introduction & Background:**
    - **Fred Luddy** founded ServiceNow in 2004 to enable business users to solve their own problems with intuitive technology.
    - ServiceNow is designed as a cloud-based **Application Platform as a Service (aPaaS)**.
2. **ServiceNow Platform Overview:**
    - Combines infrastructure, platform, and a suite of applications.
    - Built on a **single common database** and data model, not tied to a specific business function.
    - **Multi-instance architecture** ensures each client has their own instance, improving control and security.
3. **Key ServiceNow Features:**
    - **Applications & Workflows:**
        - Four main categories: IT, Employee, Customer, and Creator workflows.
    - **Redundancy & Backups:**
        - Global data centers with redundancy, failover, and regular backups (4 full weekly, 6 daily differentials).
    - **Domain Separation:**
        - Allows for dividing tasks into domains for better security management.
4. **User Interface Types:**
    - **Now Platform UI:** Main interface for desktops/laptops.
    - **ServiceNow Mobile Apps:** Three apps for different functions available on app stores.

3) ServiceNow User Interface Overview

1. **Banner Frame**:
    - Contains the logo, global search bar, and user settings.
    - Allows access to system settings and user preferences.
2. **Application Navigator**:
    - Located on the left side of the UI.
    - Enables navigation through applications and modules.
    - Can be customized with favorites for quick access.
3. **Content Frame**:
    - Central area of the UI where the main application content is displayed.
    - Changes dynamically based on navigation selections.

4. **Global Search**:
    - A powerful tool to search for records, articles, and documentation across the platform.
    - Filters results to improve efficiency.
5. **Connect Chat**:
    - A tool for real-time collaboration and communication within the ServiceNow platform.
    - Useful for connecting with colleagues and seeking help.

Important Tools

- **System Settings**: Allows users to configure personal preferences.
- **Contextual Help**: Provides quick access to help and documentation relevant to the current task.

Conclusion

Grasping the user interface components and their functionality is essential for effective navigation and use of the ServiceNow platform. Regular practice and exploration will reinforce your understanding.

4) ServiceNow Branding Concepts

1. **Importance of Branding**:
    - Enhances user comfort and adoption.
    - Reflects the company's identity and values.
2. **Customization Options**:
    - Ability to change logos, colors, and other UI elements.
    - Ensures a cohesive look and feel aligned with corporate branding.
3. **Guided Setup Wizards**:
    - Simplifies the branding process for users.
    - Provides step-by-step instructions for implementing branding changes.
4. **Hands-On Demonstration**:
    - Practical showcase of branding features in ServiceNow.
    - Real-time application of customization options.

5) Introduction to ServiceNow Lists and Filters:

- ServiceNow uses lists to display contents from database tables.
- Lists are integral to navigating through incidents, tasks, problems, etc.
- The interface is consistent across the platform, providing tools to sort, filter, and analyze data.

1) **Accessing Lists**:
   - Use the Application Navigator or the dot list command to access specific tables (e.g., incident.list).
   - If you don't know the table name, use sys_db_object.list to view a table of tables.
2) **List View Interface**:
   - The interface is divided into the title bar, list header, and data rows.
   - The title bar includes the list control menu, search tools, and paging controls.
   - The list header contains column names and context menus for further customization.
3) **Customizing Lists**:
   - Use the list control menu to save views, apply filters, group data, and adjust the number of records per page.
   - Personalize lists using the gear icon to add, remove, or reorder columns.
   - Apply filters using the condition builder or column search fields.
4) **Advanced Features**:
   - Utilize breadcrumbs to understand and navigate applied filters.
   - Sort columns by clicking on their labels; use the column context menu for advanced options like charts or exporting data.

Tips:

- The dot list command is crucial for accessing lists quickly.
- Experiment with filters and breadcrumbs to get comfortable with the interface.

6) Forms in ServiceNow

1. **Introduction to Forms:**
   - Forms in ServiceNow are essential for interacting with individual records, either by viewing existing records or creating new ones. These forms are a central element in ServiceNow, enabling users to add, view, or modify data in the system's database.
2. **Structure and Layout:**
   - Every form follows a standardized layout, which includes a header bar with tools, a main section with fields displaying record attributes, and additional sections for related lists and formatters. This standardization helps users navigate and use forms consistently across different tables.
3. **Fields and Data Types:**
   - Forms display various field types based on the data types defined in the database, such as string fields, Boolean fields, choice fields, and reference fields. Reference fields allow users to link records between different tables, enhancing the relational aspect of the database.
4. **UI Policies:**
   - UI policies in ServiceNow allow for dynamic behavior on forms, such as showing or hiding fields based on the value of another field. This feature helps in creating a more interactive and context-sensitive user experience.

5. **Saving and Updating Records:**
    - Users must manually save or submit changes made on a form, as ServiceNow doesn't automatically save them. Options like "Submit," "Update," and "Save" determine how and when the data is committed to the database.
6. **Form Views and Personalization:**
    - ServiceNow allows users to create and switch between different views of the same form to suit different roles or tasks. Users can also personalize their form views by selecting which fields to display, enhancing their experience without affecting other users.
7. **Attachments and Templates:**
    - The platform provides the ability to manage attachments, enabling users to attach files directly to records. Templates in ServiceNow are tools to automatically populate fields with predefined data, streamlining the data entry process.

7) A Hands-on ServiceNow Tool Demo

ServiceNow is a cloud-based platform designed to provide IT services and manage various business processes. It offers a suite of applications that support IT functions, employee needs, customer services, and application development. Here's a summary of what the video covers:

1. **Introduction to ServiceNow**:
    - ServiceNow is a cloud-based platform that offers IT services, similar to a cloud-based IT department.
    - It handles compute resources, scaling, security, redundancy, failover, database management, and data backups.
2. **Logging In**:
    - Companies are given one or more URLs to access their ServiceNow instances.
    - Users need an account with assigned roles to manage their privileges and access.
3. **User Interface**:
    - **Next Experience UI**: The primary interface where most work is done.
    - **Other UIs**: Include mobile apps, Service Portal, and Employee Center.
4. **Navigation and Features**:
    - **User Menu**: For user-specific settings and preferences.
    - **Notifications**: For system alerts and updates.
    - **Contextual Help**: Provides help articles based on current tasks.
    - **Global Search**: Allows searching across the entire platform.
    - **Contextual App Pill**: Shows your current location within the platform.
    - **Favorites**: Lets you bookmark important screens.
    - **History**: Tracks and provides access to recently visited screens.
    - **All Menu**: Access to all applications and modules.

5. **Application 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 developers to build and enhance applications.
6. **Applications**:
    - ServiceNow provides a wide range of applications out of the box, including self-service, asset management, knowledge articles, predictive intelligence, and more.
    - Additional applications can be added from the ServiceNow Store.
7. **Training and Certification**:
    - ServiceNow offers various certification options for enhancing careers and training employees.
8. **Certification and Application Areas**: ServiceNow offers certifications tailored to specific applications within their platform. You can choose certifications based on the particular application area you are interested in.
9. **Lists and Forms**:
    - **Lists**: Display multiple records from one or more database tables. Features include various views, filters, grouping, pagination, and actions on selected rows. Lists also support personalization and context menus for sorting and filtering data.
    - **Forms**: Show details for a single record. Forms can include sections, related lists, and various tools for modifying records. They also support personalization for different user needs.
10. **Knowledge Application**:
    - **Knowledge Bases**: Serve as libraries for important articles or documentation, helping users access help and information. Knowledge is organized into knowledge bases, and users can create, publish, and manage articles within these bases.

8) Introduction to Importing Data in ServiceNow

1. **Overview**:
    - key components of the import process including data sources, import sets, transform maps, field maps, and data import scheduling.
2. **Key Terminology**:
    - **Source Data Entity**: The original data that needs to be imported.
    - **Target Entity**: The destination within ServiceNow where the data will be loaded.
    - **Staging Table**: An intermediary table created by ServiceNow (also called an import set table) that temporarily holds the data between the source and target entities. This table is automatically managed by ServiceNow during the import process.
3. **Import Process**:
    - **Source Data**: The data you want to import.
    - **Staging Table**: Servicenow creates this automatically to facilitate the import.

- **Target Data Store**: The final destination in ServiceNow where the data is stored after import.

9) Creating a Data Source in ServiceNow

1. **Overview**:
   - **Data Source**: A record in ServiceNow that specifies the parameters needed to connect to and pull data from a source.
   - **Purpose**: To define how ServiceNow will access the data, what data to import, and how to name the staging table for temporary data storage.
2. **Process**:
   - **Access Data Source Table**:
     - Navigate to the Data Source table using the filter navigator: sys_data_source.list.
     - Alternatively, go to System Import Sets > Administration > Data Sources.
   - **Creating a Data Source**:
     - Click "New" to start creating a new data source record.
     - **Name**: Assign a name (e.g., "test import").
     - **Label**: Set a label for the staging table (e.g., "test import").
     - **Type**: Select the data source type (e.g., File, JDBC, LDAP, etc.).
       - For **File**: Specify the file format (CSV, Excel, etc.), and choose the file retrieval method (e.g., attachment).
       - For **JDBC**: Provide connection details such as database type (MySQL, Oracle, SQL Server), database name, port, and authentication credentials.
   - **File Data Source**:
     - Select the file format (e.g., Excel).
     - Specify the sheet number and header row if applicable.
     - Attach the file to the data source.
3. **Final Steps**:
   - After configuring the data source, submit the form.
   - Attach the data file if using a file-based source.
   - Save or submit the data source to establish the connection parameters.

10) Understanding Import Sets in ServiceNow

1. **Introduction to Import Sets**:
   - The video focuses on import sets, which are staging tables created by ServiceNow as part of the data import process.
   - Import sets serve as temporary storage for data before it is moved to the target tables.
2. **Creating a Data Source**:

- The presenter refers to a previous step where a data source record was created. This record specifies the source of the data and parameters for the staging table.

3. **Testing and Creating the Staging Table**:
   - ServiceNow checks for the existence of the staging table during an import run. If it doesn't exist, ServiceNow creates it based on the parameters defined in the data source.
   - Data is then loaded into this staging table from the specified source.
4. **Running an Import**:
   - To test the data source, the presenter shows how to run an import to load data into the staging table.
   - After running the import, ServiceNow creates the staging table if it doesn't exist and populates it with the data.
5. **Viewing and Managing the Staging Table**:
   - The presenter demonstrates how to view the contents and structure of the staging table.
   - The staging table will have columns based on the data source's header row.
6. **Handling Multiple Imports**:
   - When running multiple imports, data is appended to the staging table. Each import run is recorded in the sys_import_set table, which tracks different import sets and their respective records.
7. **Import Set Table (sys_import_set)**:
   - The sys_import_set table holds records of each import run, linking them to the staging table data.
   - This table helps manage and organize data by import set, allowing for better tracking and management.
8. **Next Steps**:
   - After the data is in the staging table, the next step is to define how this data should be moved to the target table in ServiceNow, which will be covered in a subsequent video.

11) ServiceNow Transform Maps and Field Maps:

1. **Data Import Overview**:
   - The process involves creating a data source, setting up a staging table, and eventually moving data from the staging table to the target table in ServiceNow.
2. **Field Maps**:
   - Field maps define how each field in the staging table maps to a field in the target table.
   - Each field mapping is stored as a record in the CIS_transform_entry table (labelled as "Field Map").
3. **Transform Maps**:
   - Transform maps group field maps together for a complete import process.
   - Stored in the CIS_transform_map table (labelled as "Transform Map").
4. **Creating a Transform Map**:
   - Create a transform map by specifying the source (staging table) and the target (destination table).

- After creating the transform map, you can use tools like Mapping Assistant to define field mappings.

5. **Coalesce Field**:
   - The "coalesce" option helps in identifying unique records to avoid duplicates during import.
   - It is useful for matching records in the target table with the imported data.
6. **Demo and Verification**:
   - The video demonstrates creating a transform map, defining field mappings, and setting up coalesce fields.
   - It shows how to verify records in the CIS_transform_entry and CIS_transform_map tables.
7. **Next Steps**:
   - Test the import process from beginning to end to ensure data is correctly moved.
   - Consider scheduling imports if needed.

12) ServiceNow Incident Management Tutorial and Task Administration

1. **Introduction to ServiceNow Tasks**:
   - **Tasks Definition**: In ServiceNow, a task is a record representing work that needs to be done, like fixing a printer or installing software.
   - **Task Table**: Tasks are stored in a table named task, which has common attributes like description, status, due date, and assignee.
2. **Types of Tasks**:
   - **Change Requests, Incidents, and Problems**: These are examples of task types that extend the task table. Each type inherits common attributes but adds specific ones as needed.
3. **Task Assignment**:
   - **Assignment Rules**: Automatically assign tasks to users or groups based on conditions. These rules are stored in the assignment_rule table and can be prioritized using execution order.
   - **User and Group Tables**: Users and groups must be defined in their respective tables. Tasks can be assigned to either individual users or groups.
4. **Creating and Testing Assignment Rules**:
   - **Example**: An assignment rule is created for hardware incidents, automatically assigning them to a specific user and group.
5. **Task Management Tools**:
   - **Service Desk**: Provides views for tasks assigned to you or your group.
   - **Collaboration Tools**: Include user presence and real-time editing to facilitate teamwork on tasks.
   - **Activity Stream**: Keeps track of changes and notes on tasks.

6. **Visual Task Boards**:

- **Components**: Include cards (tasks) and lanes (groupings). Boards can be used to visualize tasks, identify bottlenecks, and assign tasks.
- **Types of Boards**:
  - **Guided Boards**: Created from a list and use predefined values for lanes.
  - **Flexible Boards**: Use attributes without predefined values.
  - **Freeform Boards**: Customizable and flexible.

13) ServiceNow Reporting Tutorial

1. **ServiceNow Reporting Overview**:
   - ServiceNow reporting starts with the database tables that support the reporting functionality.
   - Reports are stored in the sys_report table, which includes details like title, table, type, and other attributes.
2. **Supporting Tables**:
   - **Report Source Table**: Stores saved queries for data retrieval.
   - **Scheduled Email of Reports Table (sys_auto_report)**: Manages automatic report execution and emailing.
   - **Report Users and Groups Table**: Handles sharing reports with users or groups.
   - **Dashboard Table**: Allows reports to be added to dashboards for broader display.
3. **Creating Reports**:
   - Reports can be created using:
     - **Reports Application**: Via the "Create New" module.
     - **ServiceNow Studio**: For working within an application scope.
     - **Existing List View**: Create reports directly from existing data views.
   - Key fields in the sys_report table include sys_id, title, source_type, table, filter, and type.
4. **Report Types**:
   - ServiceNow provides over 23 types of reports including lists, bar charts, pie charts, heat maps, and more.
   - Each type is suitable for different visualization needs.
5. **Scheduling Reports**:
   - Use the sys_auto_report table to schedule reports for automatic emailing.
   - Fields include report reference, user and group fields, email addresses, recurrence schedule, time, subject, and message body.
6. **Sharing Reports**:
   - The sys_report_users_groups table allows sharing reports with individual users or groups.
   - Reports can be shared directly through the UI, giving others access to view or run them as needed.

14) What is Low Code No Code Development?

Introduction:

- Low code/no code development is introduced as an innovative approach to software creation, aiming to simplify the process and remove barriers between business needs and technological solutions.

Traditional Software Development Challenges:

- Traditional development involves complex coding, multiple iterations, and back-and-forth communication between business and IT departments.
- Business needs are often communicated through requirements that IT transforms into a system, but this can lead to dissatisfaction due to misaligned expectations and iterative changes.

Low Code No Code Solution:

- **Low Code No Code**: An approach that uses intuitive, user-friendly tools to create applications with minimal coding.
- **Main Idea**: Empower business users (not just IT professionals) to build and manage applications themselves.
- **Benefits**:
    - **Reduced Complexity**: Simplifies tasks like server setup, database management, and workflow automation.
    - **Faster Development**: Accelerates time to market by streamlining development processes.
    - **Lower Costs**: Reduces the need for extensive coding expertise and long development cycles.
    - **Increased Automation**: Facilitates easier automation of tasks and workflows.

Tools and Platforms:

- **ServiceNow**: Examples include App Engine Studio for guided application creation, UI Builder for drag-and-drop interfaces, and Flow Designer for automating tasks with natural language.
- **Other Examples**: Microsoft PowerApps, Zoho, Appian, and Salesforce also offer low code/no code capabilities.

Considerations:

- **Constraints**: Simplified tools may lack flexibility and offer fewer customization options compared to traditional coding.
- **Underlying Code**: While the process is less code-intensive for users, the underlying code still exists, written by others.

Career Opportunities and Advice:

- **For Business Users**: Take advantage of low code/no code tools to innovate and improve business processes independently. Learn basic technical skills and explore ways to simplify or automate tasks.
- **For IT Professionals**: Embrace the low code/no code trend as an opportunity to focus on more complex tasks and support business users. Consider it a way to enhance your role rather than replace it.

Conclusion:

- Low code/no code development represents a shift towards making technology more accessible to non-technical users while still providing powerful tools for application development.