Week- 1 Understanding Document

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What is ServiceNow?

ServiceNow is an APaaS which stands for application platform as a service which provides us with services that are readily available over the cloud and which helps the employee of an organisation to work the way they want to, not how the software dictates them to work.

It helps to solve problems that enterprises face regularly including,

1. **Service Management-** This includes managing the incidents, problems and changes. It has many features like analytics, insights and others that impacts speed and delivery of services.

2. **HR Management-** This include leave management, timesheet management, employee document management and new onboarding management.

3. **Finance and Operation Management-** This includes managing operations related to finance and automating the financial process.

What are the different types of ServiceNow release?

1. Feature Release
2. Patch Release
3. Hot Fix

ServiceNow Platform Architecture?

The ServiceNow Platform consists of the the following layers,

1. **User Interface (UI) Layer:**

1. **Portal and Dashboards:** The UI layer consists of portals, dashboards, and user interfaces that provide a seamless experience for end-users. It includes Service Portals, Service Catalogs, and customized dashboards that users interact with.
2. **Forms and Lists:** Users interact with records through forms (for single records) and lists (for multiple records). The UI is customizable using UI policies, UI actions, and client scripts.
3. **UI Actions and Scripts:** This layer also allows the use of client-side scripting to enhance the user experience by customizing forms, lists, and workflows according to business logic.

2. **Application Layer**

1. **Applications and Modules:** ServiceNow is built on applications and modules that represent different functionalities like Incident Management, Problem Management, Change Management, etc. These are grouped into modules for easier navigation and use.

2. **Business Rules and Workflows:** The application layer includes business rules and workflows that enforce business logic and automate processes. Business rules run on the server side and are triggered based on specific conditions, while workflows define the sequence of tasks and approvals for automating business processes.
3. **Service Catalog and Request Management:** This component manages the service offerings and requests. It allows users to submit and track requests for various services provided by the IT department or other business units.

3. **Integration Layer**

   APIs and Web Services: ServiceNow supports REST and SOAP APIs for integrating with other systems. These APIs allow for inbound and outbound communication, enabling ServiceNow to interact with third-party applications and services.

4. **Data Layer**
   1. **Tables and Databases:** ServiceNow uses a relational database to store data, with all records stored in tables. These tables can be customized to fit specific business needs, and new tables can be created as needed. ServiceNow's database schema is highly flexible and supports custom fields, relationships, and dependencies.

   2. **CMDB (Configuration Management Database):** The CMDB is a key component in the ServiceNow platform, storing configuration items (CIs) and their relationships. It serves as the foundation for various ITIL processes, such as Incident, Problem, and Change Management.

5. **Processing Layer**
   1. **Mid Server:** The Mid Server is an on-premise component that facilitates communication between ServiceNow and on-premises resources. It acts as a bridge for integrations that require access to internal networks, such as LDAP, JDBC, or file systems.
   2. **Schedulers and Job Management:** ServiceNow includes a scheduler for managing background jobs, which are tasks that run asynchronously. These jobs handle tasks like data import/export, report generation, and other automated processes.
   3. **Notifications and Alerts:** The platform provides a robust notification engine that can send alerts via email, SMS, or other channels based on specific triggers or conditions.

What are the different types of data Representation in ServiceNow?

   1. **Record-** A record is a row in a spreadsheet. Every data in ServiceNow is a row in a table.

   2. **List View-** A list view is a view which shows multiple records in one page but shows limited fields at a time.

   3. **Form View-** A form view displays one record per page and offers more control and shows multiple fields at a time.

ServiceNow Search and Filters?

ServiceNow provides robust search and filtering capabilities that allow users to quickly find and interact with the data they need. These features are crucial for navigating large datasets, refining search results, and managing records effectively.

1. **Global Search**

1. **Global Search Bar:** The global search bar is located at the top of the ServiceNow interface and allows users to search across the entire platform. It searches through records, knowledge articles, catalog items, and other content types based on the user's permissions.
2. **Search Scope:** Users can limit the scope of the global search by selecting specific categories or modules to search within, such as Incidents, Changes, or Knowledge Articles. This helps narrow down the results to more relevant entries.
3. **Search Results:** The search results are displayed in a categorized format, showing relevant records from different tables and applications. Users can click on the results to navigate directly to the records.

2. **Search in Lists**

1. **Column Search:** When viewing a list of records, users can search within specific columns by typing keywords or values into the search field at the top of the column. This method allows for precise filtering of records based on the content of a particular field, such as Incident Number, Assigned To, or Priority.
2. **Condition Builder:** For more complex searches, the condition builder provides a way to create detailed search queries. Users can define multiple conditions, such as "Priority is High AND State is Open," to filter the list according to specific criteria.
3. **Wildcards and Operators:** ServiceNow supports the use of wildcards (e.g., * for any character) and operators (e.g., =, !=, >), enabling users to perform more flexible searches.

3. **Filters**

1. **Creating Filters:** Filters allow users to display only the records that meet specific criteria. Users can create filters by selecting conditions in the filter criteria builder at the top of a list view. For example, a filter could be created to show only incidents assigned to a particular user or incidents that are in a "Resolved" state.
2. **Saving Filters:** Users can save frequently used filters for easy access. Saved filters appear in the filter navigator, allowing users to apply them with a single click. This feature is particularly useful for users who regularly need to view specific subsets of data.

What is UI Policy and Data Policy in ServiceNow?

UI Policy are scripts or operation that runs on the client side and works in a form. With this we can set a field as mandatory, read-only or show/hide.

Data Policy are scripts or operations which run on the server side and can only make a field mandatory or read-only.

What is Update Set in ServiceNow?

It is a group of configuration changes or business rules which can be moved from one instance to another. Capture all changes in an unit and move to other instance.

Items we can capture:
1. Business Rule
2. Client Script
3. UI Policy
4. UI Action
5. Notifications
6. Form Configuration

Items we cannot capture:
1. Records
2. Users
3. Group
4. CMDB Records
5. System Properties

What are the different views in ServiceNow?

1. Form Views: These are the most common types of views in ServiceNow. A form view defines how a single record is displayed. It includes the fields, sections, and related lists that are visible when a user opens a record from the list view.

2. List Views: These views define how multiple records are displayed in a list. A list view includes the columns (fields) that appear, the order of those columns, and any groupings or aggregations applied to the list.

3. Related List Views: These views are used for related lists, which appear as part of a form view. Related lists show related records from other tables, such as all tasks associated with a particular change request.

4. Mobile Views: These are optimized views for mobile devices, ensuring that users can interact with records effectively on smaller screens. Mobile views often include fewer fields and simplified layouts.

What is user administration and access control in ServiceNow?

The user administration consists of,

1. **User:** People having account in ServiceNow. They can be part of various roles and can have some role associated with them.
2. **Group:** Collection of users which have same role. Roles can be assigned to a specific group and a group can be a part of a parent group.
3. **Roles:** Collection of permission to give a certain level of access to ServiceNow. Roles are asssigned to various groups. One role can be a collection of other roles as well.

Access Control List

Defines to how much extent can a user interact with a row in a table. To create or edit access control list we need to elevate role of the user. Highest level of security can be applied on table, record or field.

Importing Data in ServiceNow?

Import sets allows data from various source to be mapped to the data present in ServiceNow existing table. Roles needed for doing this is either admin or import_admin.

Components of Import Sets:
1. **Data Source-** Stores data from various data sources.
2. **Load Data-** It is the place where we load data from various data source.
3. **Import Set Table-** It is the staging area for records which are imported from a data source.
4. **Transform Map-** It is used to create a relationship between the fields present in import set table and the fields present in the targetted table.
5. **Transform-** Once mapping is done we can transfer the data to the target table using this function.