

# ServiceNow Understanding Document

## Week 2:

ServiceNow is a cloud-based platform designed to automate IT operations management (ITOM), IT service management (ITSM), and business process automation across various industries. It provides a centralized platform that integrates multiple applications and functionalities, improving service delivery, automating workflows, and enhancing operational efficiencies.

The **ServiceNow platform architecture** is composed of several layers:

- **Application Layer:** Contains modules like Incident Management, Problem Management, and Change Management. These applications are built on ServiceNow's own development platform.
- **Database Layer:** ServiceNow uses MySQL as its relational database to store all records, including tasks, configuration items (CIs), user data, and more.
- **Integration Layer:** Allows integration with external systems like LDAP, third-party applications, or other enterprise solutions via web services and APIs.
- **User Interface Layer:** This layer handles how users interact with the platform, such as through forms, lists, dashboards, or the Service Portal.

The architecture is built for scalability and high availability, ensuring that organizations can rely on it for mission-critical operations.

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## Customizing the User Interface and Branding

The user interface (UI) of ServiceNow is highly customizable, allowing businesses to tailor it to their branding and user experience needs. The platform offers multiple ways to alter the look and feel of the interface, such as:

- **Themes and Logos:** ServiceNow enables administrators to upload custom logos and change color schemes to align with organizational branding guidelines.
- **UI Pages and Scripts:** Administrators can create or modify UI pages using Jelly (ServiceNow's proprietary scripting language) or AngularJS to control the visual elements of the platform.

- **Service Portal Customization:** ServiceNow's Service Portal allows businesses to create responsive, mobile-friendly portals for end-users. These can be further customized using HTML, CSS, and AngularJS to meet specific user requirements.

**UI Policies** and **Client Scripts** can also be used to dynamically control the visibility and behavior of fields based on user inputs or predefined conditions.

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## List, Filters, and Forms Management

ServiceNow provides robust tools for managing data presentation through **Lists, Filters, and Forms**:

- **Lists:** These display multiple records from a database table. Administrators can configure list layouts by adjusting the displayed columns, sorting, and grouping records.
- **Filters:** Filters help users sort through vast amounts of data by applying specific criteria (such as date ranges, statuses, or assignment groups). Saved filters can be reused to automate routine tasks.
- **Forms:** Forms in ServiceNow display a single record and allow users to view or edit fields. Administrators can customize forms to include specific fields relevant to a process, and apply form-specific **UI Policies** to automate field behavior (e.g., making a field mandatory).

These elements provide an intuitive way for users to interact with data, enhancing productivity and simplifying task management.

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## Task Management

Task Management in ServiceNow is one of the core capabilities, primarily revolving around:

- **Incident Management:** Tracks and resolves user-reported issues.
- **Problem Management:** Investigates root causes of recurring incidents.
- **Change Management:** Manages requests for changes in IT infrastructure or applications.

Administrators can use **workflows** to automate the lifecycle of tasks, from assignment to resolution. Tasks are created, assigned, and tracked through various states like "New," "In Progress," "On Hold," and "Resolved." Tasks can also be escalated or reassigned based on urgency or priority.

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## Notifications Configuration

**Notifications** play a critical role in keeping users informed about task progress, approvals, and system events. ServiceNow allows administrators to configure email notifications based on:

- **Conditions:** For example, when an incident is assigned to a group, a notification can be sent automatically.
- **Templates:** Administrators can create custom email templates to standardize notifications.
- **Subscription-Based Alerts:** Users can opt in or out of certain notifications based on preferences, improving flexibility in communication.

**Inbound email actions** can also be set up, allowing the system to interpret incoming emails as commands for creating or updating records automatically.

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## Knowledge Management Implementation

ServiceNow's **Knowledge Management** module helps organizations manage and distribute critical information across departments. Administrators can:

- **Create and Manage Knowledge Bases:** Different knowledge bases can be created for IT, HR, or other departments to store relevant articles and documentation.
- **Publishing Workflow:** Articles can go through an approval process before being published to ensure accuracy.
- **Search and Categorization:** Users can easily search for articles by category, tags, or keywords. Advanced indexing and tagging options help ensure content is easy to find.

By using **knowledge articles**, organizations can reduce the number of incoming service requests as users are empowered to resolve issues on their own through self-help content.

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## Service Catalog Creation and Management

The **Service Catalog** is a core element of ServiceNow's ITSM offerings, allowing organizations to offer standardized services to users. Administrators can create and manage service items like software requests, hardware procurement, or access requests through the Service Catalog.

- **Catalog Items:** Administrators can define various items such as request forms, workflows, and fulfillment tasks associated with specific service requests.
- **Workflows:** ServiceNow provides drag-and-drop tools to build complex workflows that automatically route approvals, send notifications, and complete fulfillment actions.
- **Approval Policies:** Some service requests may require managerial or departmental approvals. These can be configured within the catalog item.

This module ensures that services are consistently delivered in accordance with organizational standards.

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## Configuring Tables and Fields, Access Control Lists

ServiceNow uses a table-based structure to store data, and the **Table and Field Configuration** functionalities allow administrators to define how data is captured and stored.

- **Tables:** Administrators can create custom tables or extend existing ones to store information specific to their organization. Each table contains records, and each record is a collection of fields (e.g., text, date, choice).
- **Fields:** Fields define the type of data stored in a table, such as a string, integer, or date. ServiceNow offers various field types to cater to different data entry requirements.

**Access Control Lists (ACLs)** control who can view, create, update, or delete records. ACLs are highly customizable, enabling security policies based on user roles, conditions, or script-based evaluations.

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## Data Import and CMDB Management

ServiceNow provides **Data Import** capabilities to bring data from external sources into the platform. Administrators can:

- **Create Data Sources:** Data can be imported from CSV files, Excel spreadsheets, or other database sources.
- **Map Fields:** Data fields from the external source are mapped to corresponding fields in ServiceNow tables.
- **Transformation Maps:** These maps allow for advanced data manipulation, ensuring that imported data is properly formatted and validated before it's stored.

The **Configuration Management Database (CMDB)** is a crucial aspect of IT operations, storing information about hardware, software, networks, and other IT assets. The CMDB helps track dependencies between assets and ensures accurate impact analysis during changes or incidents.

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## Integration and Update Sets

ServiceNow allows for integration with external systems and applications via:

- **Web Services (SOAP/REST):** APIs that enable two-way data transfer between ServiceNow and external systems.

- **IntegrationHub:** A low-code platform for building integrations that simplify workflows across applications.

**Update Sets** allow administrators to capture configuration changes (like UI customizations, workflows, or scripts) and migrate them from one instance to another. This is particularly useful for promoting changes from a development instance to a production environment.

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## Events and Platform Statistics

ServiceNow is event-driven, meaning it can generate **events** in response to certain conditions, such as the creation of a task or a change in a field's value. Administrators can create custom events to automate specific actions.

**Platform Statistics** provide insights into the performance of the ServiceNow instance. This includes metrics like database response times, script execution durations, and overall system health, helping administrators ensure optimal performance.

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## Conclusion

ServiceNow Administration provides a comprehensive set of tools and functionalities for managing IT operations and business workflows. By mastering areas like task management, data import, access control, and CMDB, along with integrating other systems, ServiceNow administrators can streamline operations, enhance user experience, and maintain robust, scalable service delivery.