Cognizant WEEK 2:

Platform Overview and Architecture:

ServiceNow is a cloud-based platform designed to automate and streamline IT service management (ITSM) and various business processes. Here's an overview of its platform and architecture:

Platform Overview

1. **Core Functionality:**
    - **IT Service Management (ITSM):** Includes incident management, problem management, change management, and more.
    - **IT Operations Management (ITOM):** Focuses on operational aspects, including event management, discovery, and cloud management.
    - **IT Business Management (ITBM):** Covers project and portfolio management, financial management, and resource management.
    - **Customer Service Management (CSM):** Enhances customer support and service experiences.
    - **HR Service Delivery (HRSD):** Automates HR processes and employee service requests.
    - **Security Operations (SecOps):** Manages security incidents and vulnerabilities.
2. **Service Portal:**
    - Provides a user-friendly interface for accessing services, submitting requests, and tracking incidents. It includes dashboards, widgets, and custom pages tailored to user needs.
3. **Applications and Modules:**
    - ServiceNow offers a variety of built-in applications and modules for different business needs, such as asset management, change management, and knowledge management. Custom applications can also be developed and integrated.
4. **Integration Capabilities:**
    - ServiceNow supports integration with other systems and applications through APIs, web services, and integration connectors, allowing for seamless data exchange and process automation.
5. **User Interface:**

- The platform features a responsive, intuitive user interface that adapts to different devices, including desktops and mobile devices.

Architecture Overview

1. **ServiceNow Instance:**
    - **Multi-Tenant Architecture:** Each customer's data and configurations are isolated in their own instance, ensuring security and privacy.
    - **Data Storage:** All data is stored in the cloud, managed by ServiceNow, and includes structured data (tables) and unstructured data (attachments, knowledge base articles).
2. **ServiceNow Database:**
    - **Tables:** Data is organized in tables, each containing records and fields. Tables are used to store and manage information related to incidents, changes, users, etc.
    - **Schema:** The database schema includes predefined tables and fields, with support for custom tables and fields.
3. **Application Server:**
    - **Server-Side Logic:** Handles business rules, server scripts, and workflows that execute on the server side. This includes data processing and interaction with the database.
    - **REST and SOAP APIs:** Provide mechanisms for external systems to interact with ServiceNow, enabling integration and data exchange.
4. **Client-Side Components:**
    - **Client Scripts:** Run on the user's browser to handle form interactions, validations, and dynamic content updates.
    - **UI Policies:** Control field behavior and form layout based on user actions or conditions.
5. **ServiceNow Platform Components:**
    - **Orchestration:** Automates tasks and processes across systems, including server provisioning and software deployments.
    - **Performance Analytics:** Provides advanced reporting and analytics capabilities, offering insights into system performance and business metrics.
    - **Service Catalog:** A centralized location for users to request services and access self-service options.
6. **Security Model:**

- **Authentication and Authorization:** Supports various authentication methods (e.g., single sign-on) and defines user roles and permissions to control access to data and functionalities.
- **Access Control:** Manages who can view, modify, or delete records based on defined roles and access control rules.

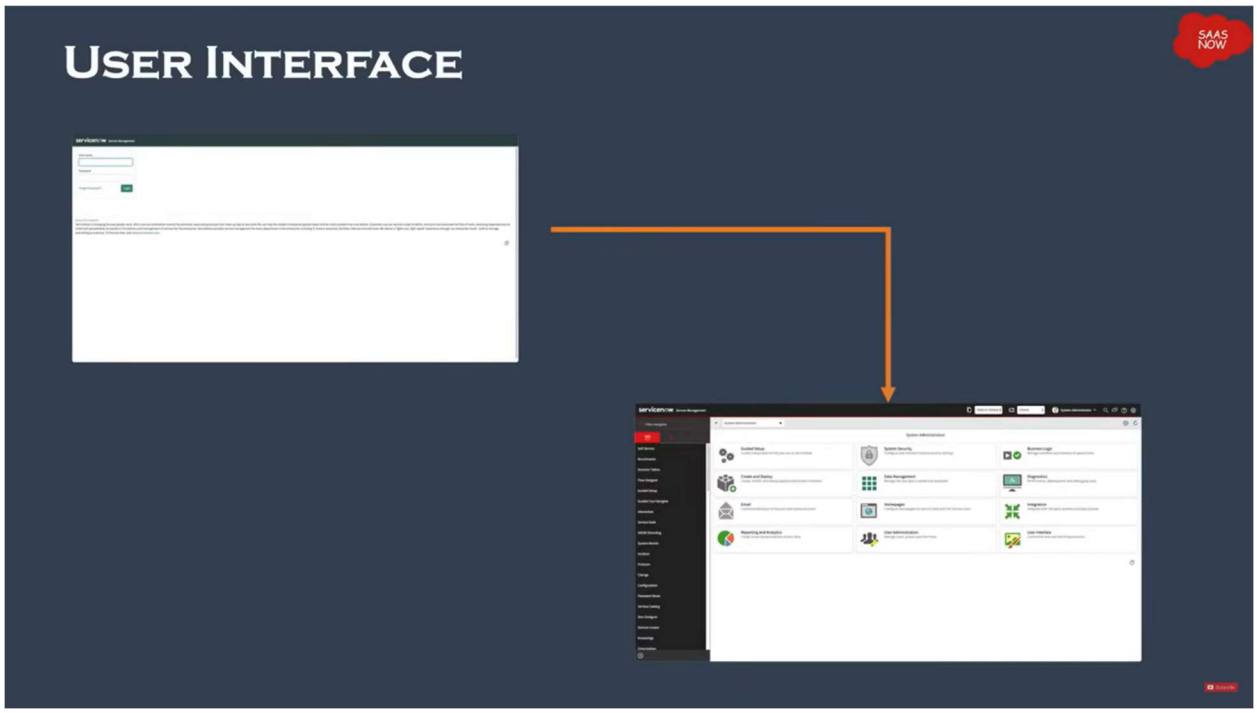
7. **Development and Customization:**
   - **Studio:** Provides a development environment for creating and customizing applications, including forms, workflows, and scripts.
   - **App Engine:** A low-code environment for building custom applications and automating workflows with minimal coding.
8. **Updates and Maintenance:**
   - **Release Management:** ServiceNow follows a regular release cycle, providing updates and enhancements to the platform while ensuring system stability and compatibility.

User Interface and Brading:

ServiceNow User Interface (UI) and Branding:

1. **Service Portal:** Offers a customizable interface where users can access services, submit requests, and view dashboards. It uses widgets and pages tailored to user needs.

2. **Forms and Lists:** Provide structured views for managing records with customizable layouts and field configurations.
3. **UI Themes:** Allows customization of colors, logos, and branding elements to align with organizational branding guidelines.
4. **Navigation:** Features a responsive navigation menu, including application menus and breadcrumbs for easy access to different modules.
5. **Widgets:** Customizable components on the Service Portal that display information or provide interactive functionality.
6. **Branding Editor:** A tool for modifying the visual appearance of the Service Portal, including header images, themes, and colors.
7. **Responsive Design:** Adapts to different devices, ensuring usability on desktops, tablets, and smartphones.
8. **Custom Pages:** Allows creation of bespoke pages and dashboards for specific use cases or user groups.
9. **Accessibility:** Supports accessibility standards to ensure the platform is usable by individuals with disabilities.
10. **User Personalization:** Users can personalize their own views and preferences for a tailored experience.



In ServiceNow, lists and filters are integral features that help users efficiently manage and view records.

Lists are used to display collections of records from a specific table, presenting data in a tabular format. Each list is customizable, allowing users to select which columns to display, organize them by dragging and dropping, and choose the layout that best suits their needs. Lists offer several functionalities, such as sorting records by column values, inline editing for quick updates, and context menus for additional actions like editing or deleting records. Users can also export list data to formats like CSV or Excel for offline analysis.

Filters are applied to narrow down the records shown in a list based on specific criteria. They allow users to define conditions, such as selecting records where a field value matches a particular criterion. Filters can be saved and reused, making it easier to access frequently used views. ServiceNow provides both basic filters, which are quick and easy to set up, and advanced filters, which offer more complex querying options. Advanced filters enable users to build more detailed criteria by combining multiple conditions with logical operators. Together, lists and filters enhance the ability to manage large volumes of data, ensuring that users can quickly find and interact with the records they need.

Knowledge Management:

Knowledge management in ServiceNow is a vital component that helps organizations efficiently manage and share knowledge across various departments. It involves creating, organizing, and distributing knowledge articles to improve decision-making and streamline support processes. In ServiceNow, knowledge management is integrated with other ITSM modules to ensure that information is easily accessible and relevant. The system allows users to submit, review, and publish knowledge articles, which can be categorized and tagged for better searchability. Additionally, ServiceNow's knowledge base can be configured to support different user roles, ensuring that sensitive information is restricted to authorized personnel. Through features like feedback loops and article ratings, the system continuously improves the quality of knowledge shared. By leveraging knowledge management, organizations can reduce ticket resolution times, enhance customer satisfaction, and maintain a centralized repository of valuable information that supports both operational efficiency and strategic decision-making.

Service Catalog:

The Service Catalog in ServiceNow is a centralized platform where users can request IT services and products, ranging from hardware and software to access requests and support services. It acts as a user-friendly interface that simplifies the request process by providing a well-organized, searchable list of available services. Each catalog item can be customized with forms, approvals, and workflows to ensure

that requests are handled efficiently and meet organizational standards. Service Catalogs can also be integrated with other modules like incident management and change management, facilitating seamless request fulfillment and tracking. By providing a structured and consistent way for users to request services, the Service Catalog helps improve user satisfaction, streamline service delivery, and ensure that requests are processed in a timely manner. Additionally, it offers analytics and reporting features that help organizations track request trends, service performance, and resource utilization, enabling continuous improvement of service offerings.

Access Control List:

In ServiceNow, an Access Control List (ACL) is a security feature that determines who can view, create, update, or delete records within the system. ACLs are essential for protecting data by enforcing role-based access controls and ensuring that users only have access to information relevant to their responsibilities. Each ACL rule is defined by a combination of conditions and scripts that specify which users or groups can perform certain actions on a given table or record. ACLs can be applied to different levels, such as table-level, field-level, or record-level, providing granular control over data access. When a user attempts to interact with a record, ServiceNow evaluates the applicable ACL rules to determine whether the user has the necessary permissions. This mechanism helps maintain data integrity, comply with security policies, and safeguard sensitive information by preventing unauthorized access. Properly configured ACLs are crucial for maintaining a secure and efficient environment in ServiceNow.

CMDB:

- **Centralized Repository:** Stores detailed information about all Configuration Items (CIs), including hardware, software, and network components.
- **Visibility and Control:** Provides a comprehensive view of the IT environment, helping manage and track CIs and their relationships.
- **Support for ITSM:** Integrates with other IT service management modules, such as incident, change, and problem management.
- **Impact Analysis:** Helps assess the impact of changes by mapping out dependencies and relationships between CIs.
- **Enhanced Decision-Making:** Offers data that supports informed decisions regarding IT operations and service delivery.
- **Configuration Management:** Records details like status, owner, and history of each CI to maintain accurate and up-to-date information.

- **Integration:** Ensures real-time updates and accuracy by integrating with various ServiceNow modules and processes.
- **Problem Resolution:** Aids in identifying the root cause of issues by providing insights into CI relationships and configurations.

Integration:

In ServiceNow, **integration** refers to the process of connecting ServiceNow with other systems, applications, or services to enable seamless data exchange and improve overall functionality. Here's a concise overview of key aspects of integration in ServiceNow:

- **Data Synchronization:** Ensures that information is consistently updated across different systems, minimizing data discrepancies and improving accuracy.
- **API Integration:** Utilizes REST and SOAP APIs to connect with external applications, allowing for real-time data access and manipulation.
- **IntegrationHub:** A platform within ServiceNow that facilitates the creation of integrations with external systems through connectors, spokes, and flow designer.
- **Service Connectors:** Pre-built connectors that enable integration with popular third-party applications and services, such as cloud platforms, email systems, and CRM tools.
- **Middleware:** Uses tools like Integration Brokers to manage data exchange and communication between ServiceNow and other systems, providing a scalable integration framework.
- **Web Services:** Supports web service integration for exchanging data between ServiceNow and external systems using standard protocols like HTTP/HTTPS.
- **Event Management:** Integrates with monitoring tools to process and correlate events, generating actionable insights and automating responses based on predefined rules.
- **Import and Export:** Facilitates data import and export using formats like CSV, XML, and JSON, enabling easy data transfer between ServiceNow and external systems.

Platform Stats:

ServiceNow provides a range of platform statistics that help monitor and analyze system performance, usage, and health. Here are some key platform statistics and metrics commonly tracked:

- **System Health:** Monitors the overall health of the ServiceNow instance, including server performance, uptime, and availability.
- **Usage Metrics:** Tracks the number of active users, session counts, and user activity to understand how the platform is being utilized.
- **Performance Metrics:** Measures response times, transaction speeds, and system load to ensure optimal performance and identify potential bottlenecks.
- **Incident and Request Statistics:** Provides data on the volume of incidents, service requests, and their resolution times to gauge support efficiency.
- **Change Management Metrics:** Tracks the number of changes, change success rates, and any incidents resulting from changes to evaluate change management effectiveness.
- **Service Catalog Usage:** Monitors the frequency and types of requests made through the service catalog to analyze service demand and usage patterns.
- **Data Integration Statistics:** Assesses the performance and success rates of integrations with external systems to ensure smooth data exchange and operation.
- **System Logs:** Captures detailed logs of system activities, including errors, warnings, and informational messages, to aid in troubleshooting and maintenance.