

DIGITAL NURTURE 3.0 SERVICENOW LEARNINGS

WEEK 2 : ServiceNow Administration Fundamentals

TOPICS COVERED

1.ServiceNow Architecture:

It is an –

- Application Platform as a Service
- Single Data Model
- Multi Instance
- High Availability Architecture Data Centers

It had Multi Instance Architecture such as different companys have different instances isolated from each other.

From Main Instance to Backup Instance there would be 4 weekly full backup and 6 days of differential daily backup.

Ways of interacting with ServiceNow:

- User interface
- Mobile interface
- Portal interface

Its authentication is supported by

- Local database
- SSO
- LDAP
- OAuth 2.0
- Digest Token
- Multi-Factor.

ROLE BASED ACCESS:

User: an individual that has been granted access to servicenow instance

Group: set of users who share a common purpose

Role : Collection of permissions in the now platform.

NOTE: ROLES WILL BE ASSIGNED TO A GROUP WITH PERMISSIONS.

Base System Roles:

- Admin
- Itil
- Approve_user
- Catalog_admin

2.User Interface:

There are versions of UI in servicenow where we can change the versions

Available versions are UI16,

The latest version of **ServiceNow's UI is Washington DC**, which was released in Q2 2024.

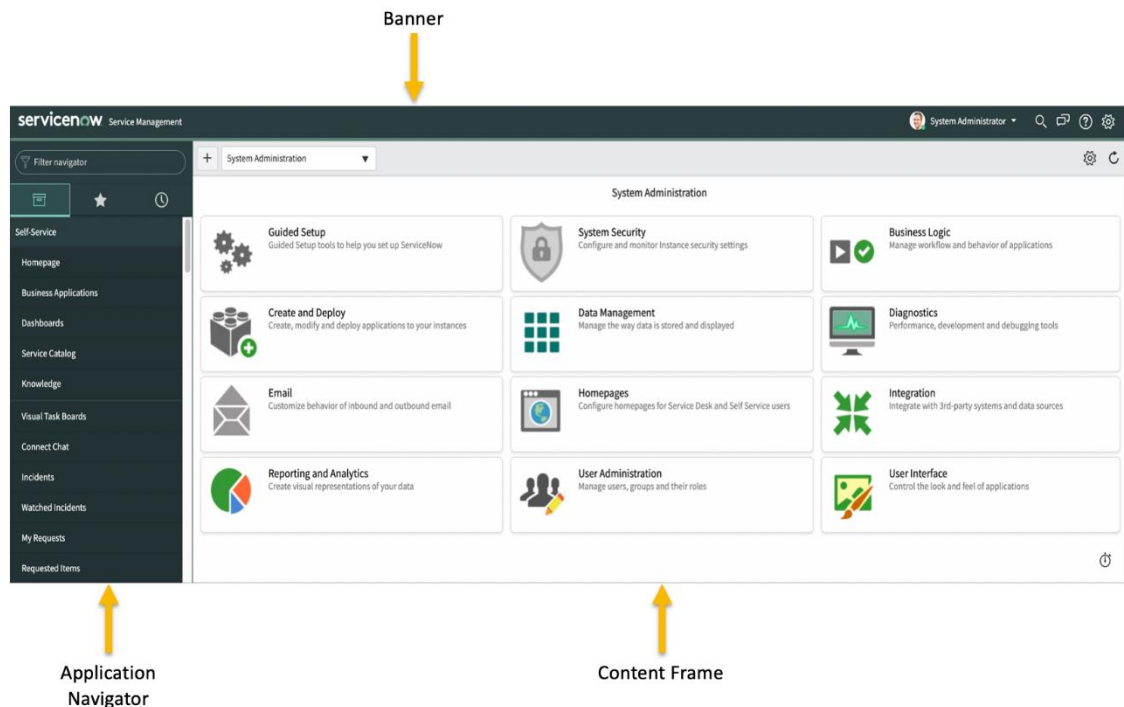
ServiceNow releases two new versions per year. The next release, **Xanadu**, is planned for late September 2024.

UI Elements:

Application Navigator

Content Frame

Banner Frame.



We can configure a welcome page in servicenow as:

- **Navigate to Service Portal:** Go to *Service Portal* > *Service Portals* in the application navigator.
- **Create/Select a Portal:** Either create a new portal or select an existing one to modify.
- **Create a Page:** Under *Service Portal* > *Pages*, create a new page for the welcome screen.
- **Add Widgets:** Add pre-built or custom widgets to the page, like text, images, or service catalogs.
- **Set the Welcome Message:** Use a text or HTML widget to display the welcome message.
- **Assign to Users/Roles:** Define which users or roles should see the welcome page.
- **Configure Navigation:** Ensure the portal links to this page upon login.
- **Publish:** Save and publish your changes for users to access the welcome page.

3.Lists and Filters :

In ServiceNow, **lists** display records from a table in rows and columns. For example, a list of *Incidents* shows records like "INC001," "INC002," each with details like priority and status.

Filters narrow down the records shown in a list. For instance, if you want to see only high-priority incidents, you apply a filter: *Priority = High*.

- **Title Bar:** Displays the name of the table being viewed (e.g., "Incidents").
- **Column Headers:** Names of fields, like "Number," "Priority," "State," etc.
- **Rows:** Each row represents a record in the table.
- **Search Bar:** Allows searching within the list.
- **Filter Conditions:** Defines criteria to display specific records.

Go to the filter Navigator where you type incident to get all the records of the incidents in the form of lists and records

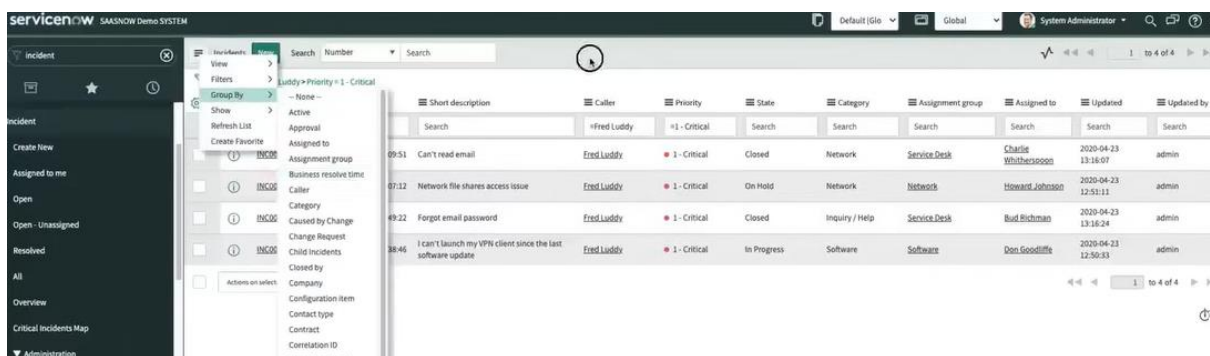
Where you can apply filters.

Can apply various filters on lists to narrow down records based on specific conditions :

1. **Value:** Specify the value to compare with the field, such as "High" for *Priority* or "Open" for *State*.
2. **Date Filters:** Filter by specific dates or relative periods (e.g., "Today," "Last 30 days").
3. **Boolean Filters:** True/False conditions, like "Active = True."
4. **Compound Filters:** Combine multiple conditions using "AND" or "OR" logic.

To group data by *State* and see how many records are in each:

1. Open the list (e.g., *Incidents*).
2. Right-click the **State** column header.
3. Select **Group by State**.
4. The list will group by state, and you'll see the count of records for each state in the group headers.



Next is whatever data that we have it can be converted in the form of reports that can be represented by:

Bar chart , Pie chart.

4.Forms:

Forms in ServiceNow display data from a table by showing each record's details field-by-field. For example, an *Incident* form shows fields like *Number*, *Short Description*, *Priority*, and *State*.

Each field is populated with data from the table's corresponding record.

an *Incident* record "INC001234" in ServiceNow. When you open the form for that incident, you see fields like:

- Number: INC001234
- Short Description: "Email not working"
- Priority: High
- State: Open

This form shows all the details from the *Incident* table for that specific record, letting you update or view the incident data.

Personalization of a Form:

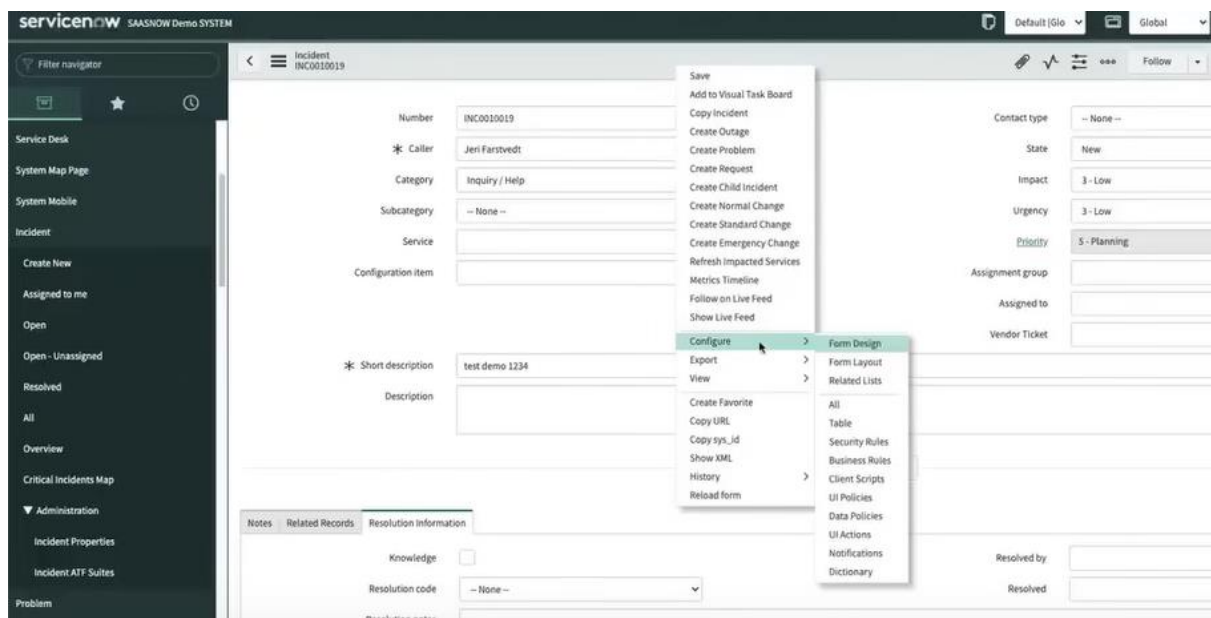
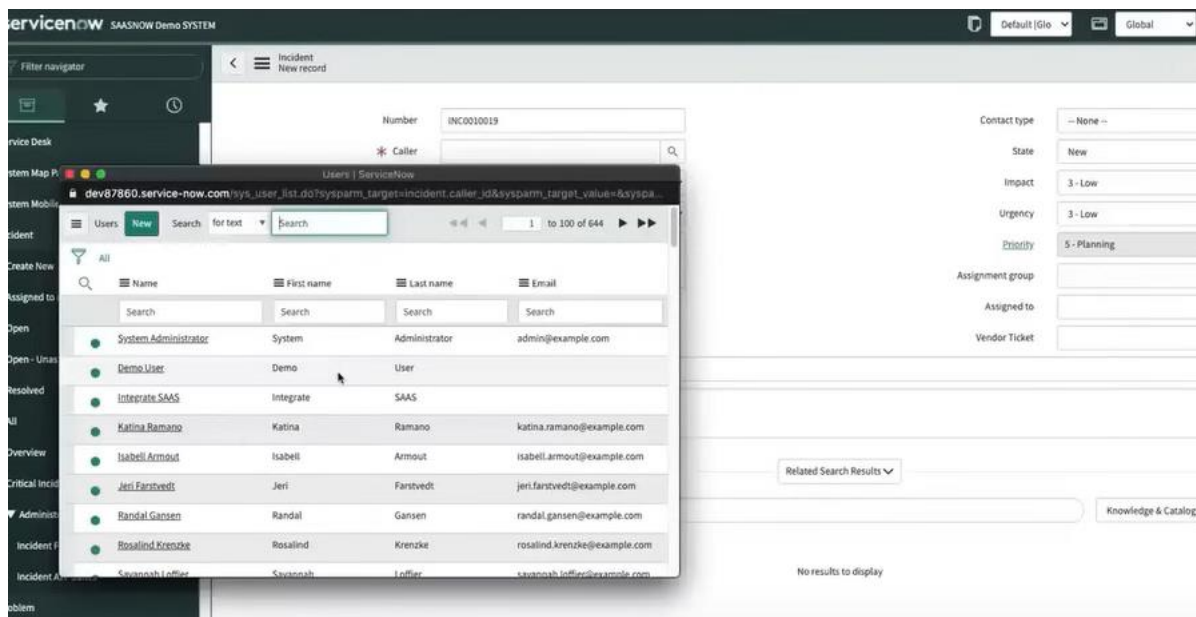
1. **Personalize Form Layout:** Click the gear icon and select *Form Layout* to add/remove/reorder fields.
2. **Personalize Field Display:** Use *Form Designer* to visually adjust field positions.
3. **UI Policies:** Configure dynamic behavior, like hiding fields based on conditions.
4. **Form Sections:** Add sections or split fields into different areas.

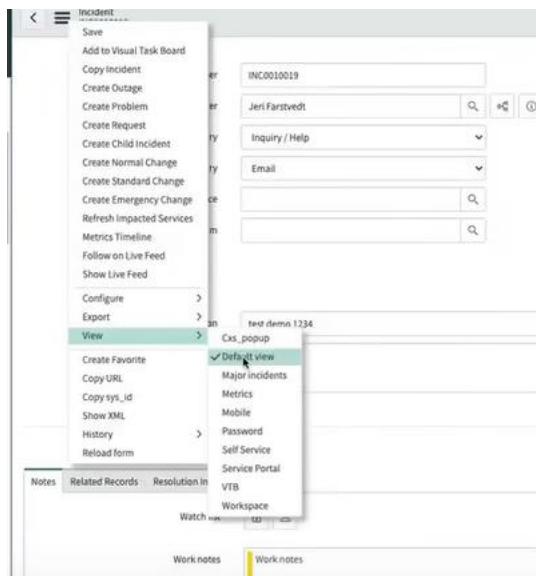
The screenshot displays a web-based form for managing a problem, identified by the number PRB0007601. The form is organized into several sections and includes a progress bar at the top with stages: New, Assess, Root Cause Analysis, Fix in Progress, Resolved, and Closed. The 'New' stage is currently active.

Form Fields and Values:

- Number:** PRB0007601
- First reported by:** (Empty field with search icon)
- Category:** Software
- Subcategory:** Email
- Business service:** (Empty field with search icon)
- Configuration item:** Email
- State:** New
- Impact:** 3 - Low
- Urgency:** 3 - Low
- Priority:** 5 - Planning
- Assignment group:** (Empty field with search icon)
- Assigned to:** Problem Coordinator A
- Problem statement:** Unable to send or receive emails.
- Description:** Unable to send or receive emails. Looks like issue is with the email server.

Below the main form fields, there is a 'Related Search Results' section and a 'Notes' section. The 'Notes' section includes tabs for 'Notes', 'Analysis Information', 'Resolution Information', and 'Other Information'. The 'Work notes list' and 'Work notes' areas are visible at the bottom.





Form Templates in ServiceNow allow users to quickly fill out forms with pre-defined values, speeding up data entry and ensuring consistency. Here's how they work:

1. **Create a Template:** Define a template with pre-set values for specific fields (e.g., *Priority = High, State = New* for incidents).
2. **Apply a Template:** Users can apply the template when filling out a form, automatically populating the fields with the template values.
3. **Custom Templates:** Different templates can be created for various scenarios or roles, such as for urgent issues or specific departments.

5 . Tasks :

A task is any record that can be completed or assigned by a user in ServiceNow.

Tracking All Tasks:

1. **Task Table:** ServiceNow centralizes tasks in tables (e.g., *Incident, Change, Task*) where each task record is tracked.
2. **Global Search:** Use the global search bar to find tasks across the platform.
3. **Dashboards and Reports:** Create dashboards and reports to monitor task statuses, workloads, and performance metrics.

Managing Tasks:

1. **Assign Tasks:** Assign tasks to users or groups, setting priorities and due dates.
2. **Task Status:** Update the status (e.g., *New, In Progress, Closed*) to reflect progress.
3. **Workflows:** Utilize workflows and automation to streamline task handling and approvals.

Collaborating on Tasks:

1. **Comments and Notes:** Use the activity stream to add comments and notes for collaboration.
 2. **Notifications:** Configure notifications to alert stakeholders about task updates or changes.
- **Related Records:** Link related records or tasks to ensure all relevant information is accessible.
 - **Submit Incident:** User reports "My computer is not working."
 - **Assign Task:** Incident is assigned to IT support.
 - **Diagnose and Fix:** IT technician diagnoses and repairs the issue.
 - **Update and Notify:** Technician updates the incident and notifies the user.

- **Close Incident:** Incident is resolved and closed.

A table is a collection of records in the database. Each record corresponds to a row in a table, and each field on a record corresponds to a column on that table. Applications use tables and records to manage data and processes. [More Info](#)

* Label

* Name

Columns Controls Application Access

Table Columns Search for text

Dictionary Entries

Fields of the Task Table:

Column label	Type	Reference	Max length	Default value	Display
Business resolve time	Integer	(empty)	40		false
Resolve time	Integer	(empty)	40		false
Caller	Reference	User	32	javascript:incident.getCaller();	false
Category	String	(empty)	40	inquiry	false
Caused by Change	Reference	Change Request	32		false
Child incidents	Integer	(empty)	40	0	false
Resolution code	String	(empty)	40		false

6 .Notifications :

How servicenow sends notificationsto users :

- Notification Triggers: Notifications are triggered by events or changes, such as record updates or specific conditions.
- Notification Types: ServiceNow can send notifications via email, SMS, or in-platform messages.

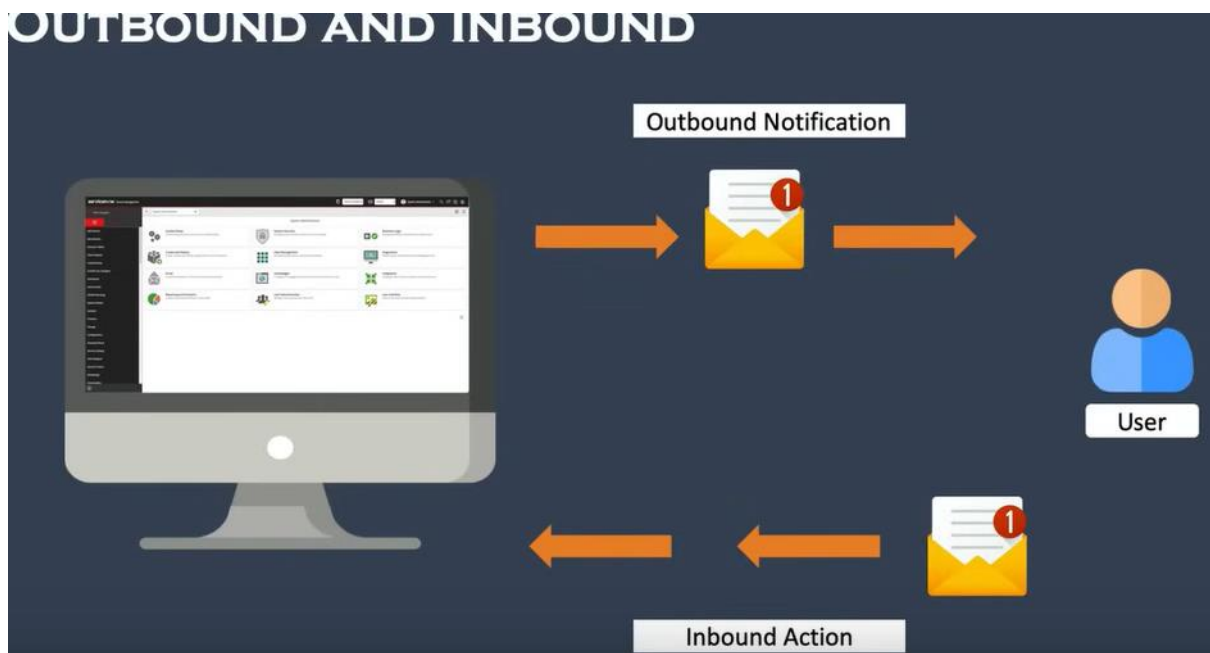
Managing User Notifications:

1. **Notification Preferences:** Users can set their preferences for receiving notifications through their profile settings.
2. **Notification Rules:** Admins can define rules for when notifications are sent (e.g., status changes).

Creating a New Notification:

1. **Navigate:** Go to *System Notification > Email > Notifications*.
2. **Create Notification:** Click *New* to start a new notification.
3. **Define Conditions:** Set the conditions for triggering the notification (e.g., when an incident is closed).
4. **Set Recipients:** Choose who should receive the notification (e.g., assigned user, group).
5. **Compose Message:** Write the email subject and body, including any dynamic content.

OUTBOUND AND INBOUND:



SAS Visual Analytics Demo System

system notification

Email Templates New Search Name Search

Name	Subject	Message	Updated
CAB Agenda Item about to be discussed	Agenda Item \$(task) is coming up for dis...		2016-07-22 02:40:08
CAB Change Request Delegate added	Please attend CAB Meeting \$(cab_meeting...		2016-07-24 17:50:21
CAB Meeting Attendee (Cal event)	Your attendance is requested in CAB \$(na...		2016-07-28 18:00:18
CAB Meeting Cancel (Cal event)	A CAB Meeting - \$(name), you were invite...		2017-06-29 03:20:48
CAB Meeting Delegate added	You have been assigned as a CAB Manager ...		2016-07-23 18:28:45
change.calendar.integration	SPECIAL CASE TEMPLATE -- Push changes in...	BEGIN/CALENDAR PRODD:/Service-new.co...	2013-04-12 16:23:11
change.calendar.integration.remove	SPECIAL CASE TEMPLATE -- Push changes in...	BEGIN/CALENDAR PRODD:/Service-new.co...	2013-04-12 16:22:55
change.ess.role	Change Request \$(number) comments added ...		2013-11-19 14:04:29
change.hill.approve.action.role	\$(sys_class_name) \$(number) has been \$(a...	Short Description: \$(short_description) ...	2005-08-18 07:57:50
change.hill.approve.role	\$(sysapproval.sys_class_name) \$(sysappro...	<div>Short Description: \$(sysapproval.s...	2011-05-13 15:19:58
change.hill.approve.reject	\$(sysapproval.sys_class_name) \$(sysappro...	Short Description: \$(sysapproval.short_d...	2005-08-18 07:56:41
change.hill.rejected.by.other	\$(sysapproval.sys_class_name) \$(sysappro...	Short Description: \$(sysapproval.short_d...	2010-08-09 14:04:59
change.hill.role	Change Request \$(number) notification -- ...		2013-11-19 14:05:06
change.task.hill.role	Change Task \$(number) notification -- \$(...		2013-11-19 14:05:12

System Settings

Notification Apply Conditions Switch to UI15

Schedule

Filter

Critical issues

Unsubscribe

6. Knowledge Management:

Knowledge Management helps organize, share, and manage information within an organization.

Benefits of Knowledge Management:

- Improved Efficiency:** Quick access to information reduces time spent searching for solutions.
- Consistent Solutions:** Standardized responses ensure consistent handling of issues

Creating a Knowledge Article on "How to Reset Your Password"

1. Create Article:

- Go to *Knowledge > Create New*.
- Choose the Knowledge Base "IT Support" for this article.

2. Fill in Details:

- **Title:** "How to Reset Your Password"
- **Short Description:** "Steps to reset your password if you've forgotten it."

3 . Review and Approval:

- Submit the article for review.
- A reviewer from the IT team checks the accuracy and completeness.

4. Publish:

- After approval, publish the article so that users can access it.

5 .Monitor and Update:

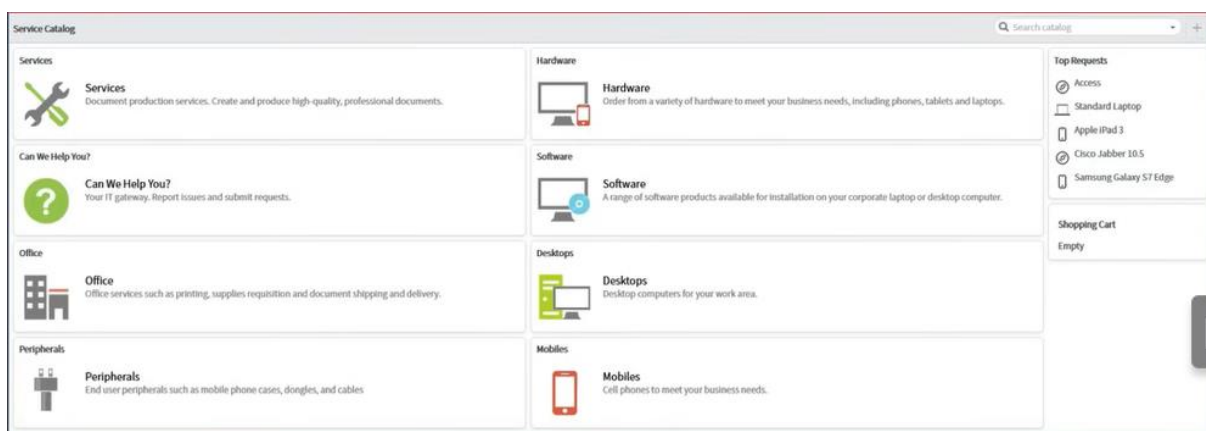
- Check user feedback and update the article if the password reset process changes or if users report issues.

8. Service Catalog :

A Service Catalog is a user-friendly menu that allows employees to request IT services, products, or support from a single place in ServiceNow.

Catalog Items and Categories:

- **Catalog Items:** Specific services or products users can request, like "Laptop Request" or "Software Installation."
- **Categories:** Groups that organize catalog items, like "Hardware," "Software," or "Access Requests."



BENEFITS OF SERVICE CATALOG

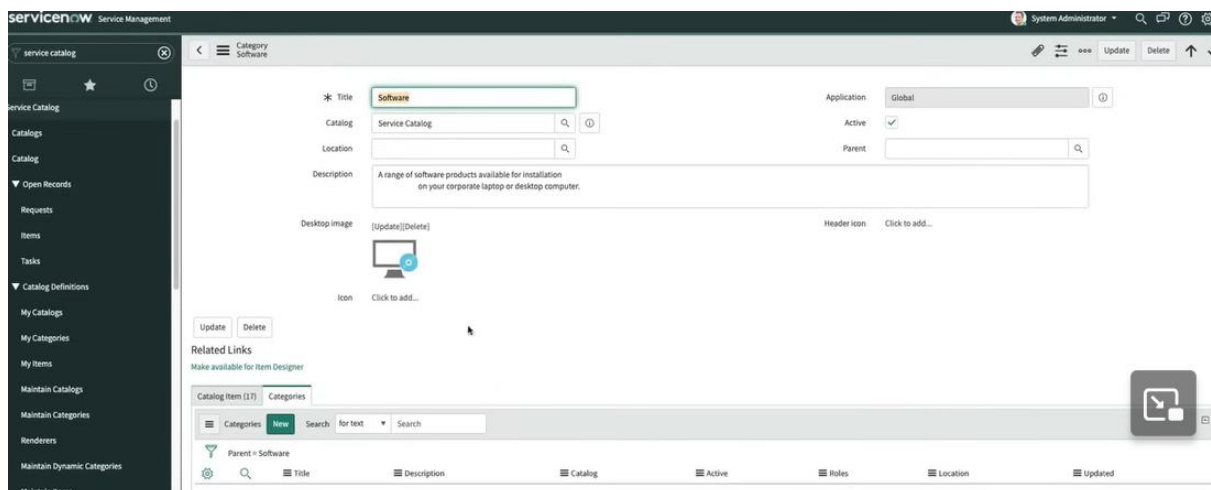
One stop shop to request different services provided by all the departments of Organization

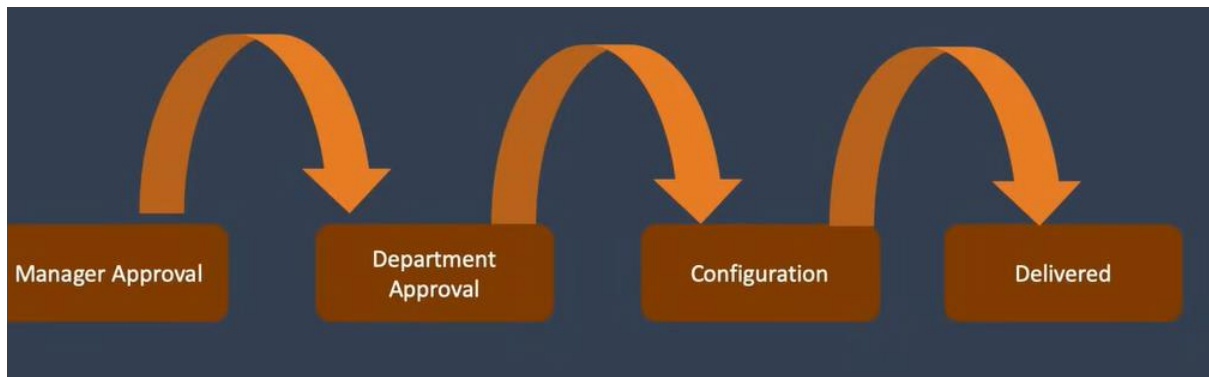
Categorized items help users to request the right Service

Multiple Catalogs can be created

Create Catalog Items:

1. **Navigate:** Go to *Service Catalog > Catalog Definitions > Maintain Items*.
2. **Create New Item:** Click *New* to start creating a catalog item.
3. **Define Details:** Enter details such as the item name, description, and price.
4. **Set Variables:** Add fields for users to fill out, like "Laptop Model" or "Software Version."
5. **Assign to Category:** Place the item in the appropriate category.
6. **Publish:** Save and publish the item so it's available in the catalog.





9. Tables and Fields :

Tables and Fields:

In ServiceNow, **tables** store data in a structured format. Each table consists of **fields** (columns) that hold specific pieces of information. For example, the *Incident* table might have fields like *Number*, *Short Description*, and *Priority*.

How Data is Stored:

Data is stored in records (rows) within tables. Each record represents an individual entry, such as a single incident, and contains values for each field.

Table Relationships:

Tables can be related to each other. For example, the *Incident* table might relate to the *User* table via a field like *Assigned To*, linking incidents to specific users.

Creating Custom Tables:

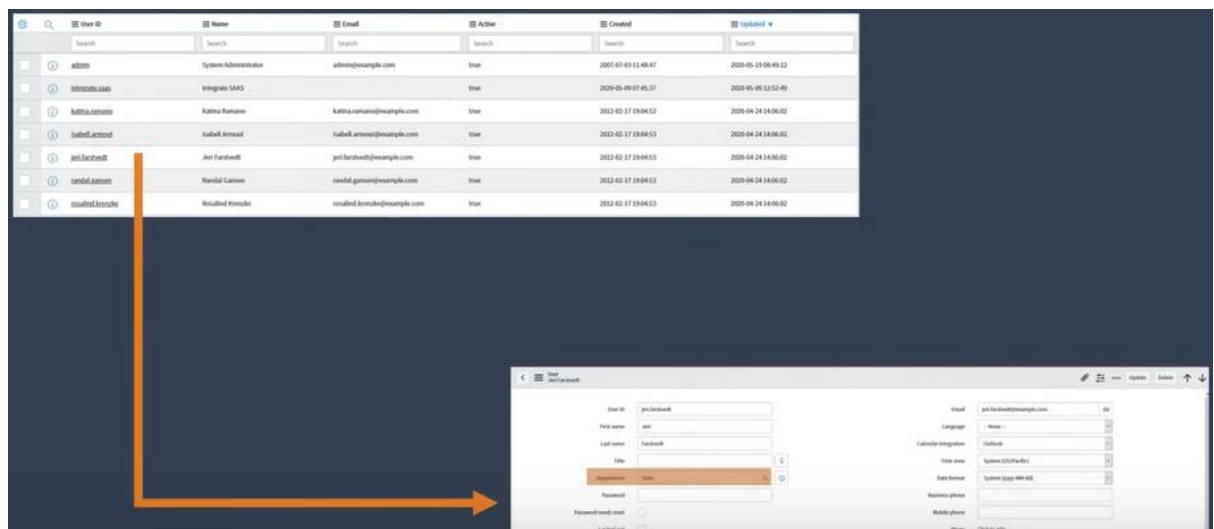
1. **Navigate:** Go to *System Definition > Tables*.
2. **Create New Table:** Click *New* to start a new table.
3. **Define Table:** Enter the table name (e.g., *Custom_Orders*), label, and other settings.

4. **Add Fields:** Define fields for the table (e.g., *Order Number*, *Customer Name*).
5. **Save and Configure:** Save the table, configure additional settings like relationships and access controls.

Example:

Imagine you create a custom table named *Event_Registration*. You add fields like *Event Name*, *Participant Name*, and *Registration Date*. Each record represents a single event registration entry, and you can relate this table to others, like an *Event* table, to track which event the registration is for.

Table :



	View ID	Name	Email	Active	Created	Updated
	Search	Search	Search	Search	Search	Search
	admin	System Administrator	admin@example.com	true	2007-03-13 14:48:47	2009-05-19 00:49:13
	integrator@demo	Integrator S&S		true	2009-09-09 07:45:37	2009-09-09 12:52:49
	kathira.kanmani	Kathira Kanmani	kathira.kanmani@example.com	true	2012-03-17 19:04:52	2009-04-24 14:06:02
	ksudhakarreddy	Ksudhakarreddy	ksudhakarreddy@example.com	true	2012-03-17 19:04:53	2009-04-24 14:06:02
	pratik.faridreddy	Pratik Faridreddy	pratik.faridreddy@example.com	true	2012-03-17 19:04:53	2009-04-24 14:06:02
	randul.ganesh	Randul Ganesh	randul.ganesh@example.com	true	2012-03-17 19:04:53	2009-04-24 14:06:02
	rsudhakarreddy	Rsudhakarreddy	rsudhakarreddy@example.com	true	2012-03-17 19:04:53	2009-04-24 14:06:02

User ID	First Name	Last Name	Email	Language	Calendar Integration	Time zone	Date format	Business phone	Mobile phone	Photo
pratik.faridreddy	Pratik	Faridreddy	pratik.faridreddy@example.com	en		System (UTC+05:30)	System (dd/mm/yyyy)			

Fields :

The screenshot shows the 'User Profile' form in ServiceNow for the user 'Jeri Farnsworth'. The form is divided into two main sections: 'Personal Information' on the left and 'System Information' on the right. The 'Personal Information' section includes fields for 'First name' (Jeri), 'Last name' (Farnsworth), 'Title' (empty), 'Department' (Sales), 'Password' (empty), 'Password needs reset' (checkbox), 'Locked out' (checkbox), 'Active' (checkbox, checked), 'Web service access only' (checkbox), and 'Internal integration user' (checkbox). The 'System Information' section includes fields for 'Email' (jeri.farnsworth@example.com), 'Language' (None), 'Calendar integration' (Outlook), 'Time zone' (System (US/Pacific)), 'Date format' (System (yyyy-MM-dd)), 'Business phone' (empty), 'Mobile phone' (empty), and 'Photo' (Click to add...). The form has a top navigation bar with 'User' and 'Jeri Farnsworth' tabs, and a bottom navigation bar with 'Update' and 'Delete' buttons.

9. Access Control Lists (ACLs) :

Access Control Lists (ACLs) in ServiceNow manage permissions and define who can access or modify records in a table.

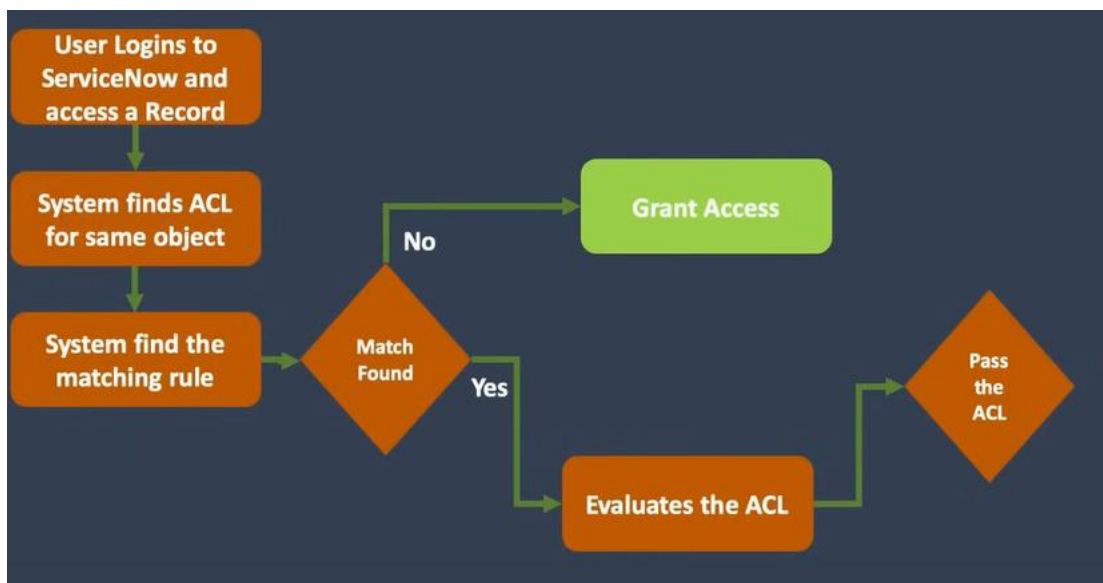
Creating New ACLs in Personal Developer Instance:

1. Navigate: Go to *System Security > Access Control (ACL)*.
2. Create New ACL: Click *New* to create a new ACL rule.
3. Define ACL Details:
 - Type: Choose the type (Table, Field, Record).
 - Table: Select the table (e.g., *Incident*).
 - Operation: Choose the operation (Read, Write, Create, Delete).
 - Condition: Set conditions for when this ACL applies (e.g., *current.user_id == user_id* for record-level).
4. Script (Optional): Add script conditions if needed for complex logic.
5. Save: Click *Submit* to save the ACL.

Example:

To restrict access to the *Priority* field in the *Incident* table so only users with the role *itil* can edit it:

1. **Navigate:** *System Security > Access Control (ACL)*.
2. **Create New ACL:** Set the type to *Field*, choose *Incident*, and select *Priority*.
3. **Define Operation:** Set the operation to *Write*.
4. **Condition:** Add a condition or script to check for the *itil* role.
5. **Save:** Click *Submit* to apply the ACL.



10.Data Import :

Data Import in ServiceNow involves bringing external data into the platform, which can be done through various methods:

1. **CMDB (Configuration Management Database):**
 - Purpose: Manages and tracks IT assets and configurations.
 - Data Import: Import data into the CMDB to populate it with information about hardware, software, and other

configuration items. This can be done using data sources, import sets, and transform maps.

Example of Importing Data:

1. CMDB Import:

- **Navigate:** *System Import Sets > Load Data.*
- **Select Data Source:** Choose the file or database to import.
- **Define Transform Map:** Map the data fields to the CMDB fields.
- **Load and Transform:** Import the data and apply the transform map to populate the CMDB.

2. Integration:

- **Navigate:** *System Web Services > REST.*
- **Create Integration:** Define REST APIs or integration connectors.
- **Configure Data:** Set up data mappings and authentication.

3. Update Sets:

- **Navigate:** *System Update Sets > Local Update Sets.*
- **Create Update Set:** Record changes in a development environment.
- **Export/Import:** Move the update set to a test or production instance.

4. Event Management:

- **Navigate:** *Event Management > Event Rules.*
- **Create Rule:** Define rules for importing and handling events.

- **Import Events:** Configure data sources to feed event data into ServiceNow.

WHAT I HAVE LEARNED DURING WEEK 2 IS :

- + Knowledge of servicenow platform features
- + Able to perform servicenow admin activities
- + Understand platform architecture