Week-1 Understanding Document

What is ServiceNow:

ServiceNow, founded by Fred Luddy in 2003, is a cloud-based Application Platform as a Service (APaaS) software company. The platform is designed to offer a robust, user-friendly environment, along with the necessary infrastructure, tools, software, and services, to address the challenges commonly faced by businesses with traditional IT delivery methods. It is the bridge between business users and IT issues, ServiceNow empowers business professionals to resolve problems independently, without the need for direct IT intervention.

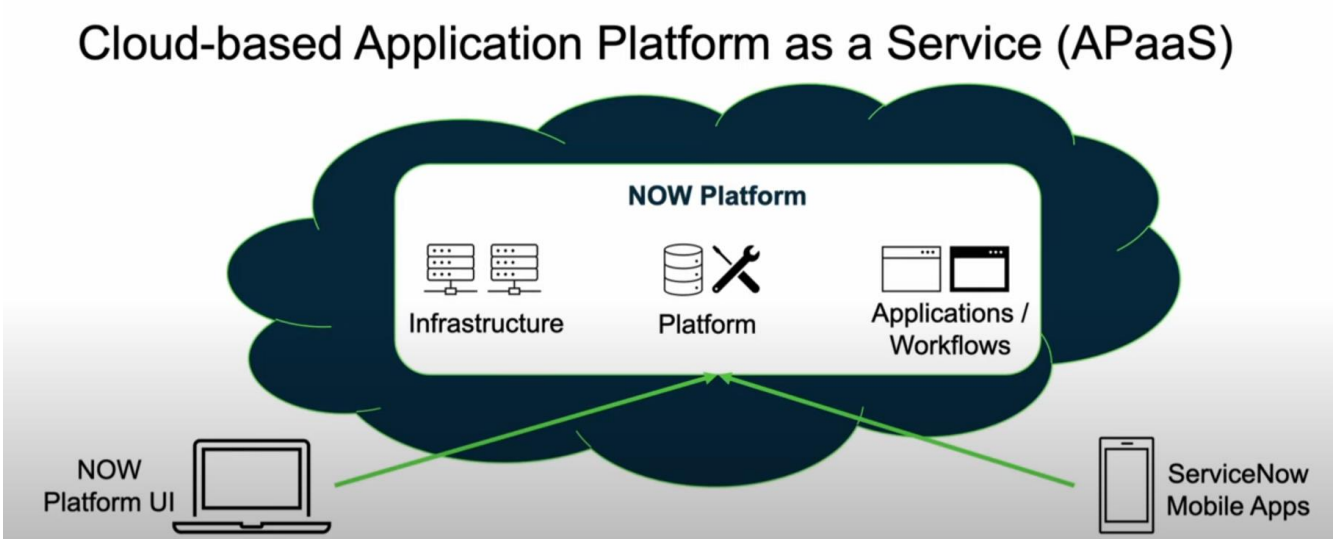
The ServiceNow platform consists of 3 main components:

1. Infrastructure
2. Platform
3. Application/Workflows

Infrastructure: ServiceNow's infrastructure is composed of various sub-functionalities, including Computing Resources(servers, ports, data centers), Security(security via multiple technologies), Service Level Agreements (SLAs)(redundancy, and failover capabilities), and Backups(four daily backups per week and six daily differential backups).

Platform: All applications within ServiceNow are supported by a single, common database, which is both robust and equipped with a comprehensive set of tables. The platform is highly customizable and can seamlessly integrate with other systems, ensuring flexibility and adaptability.

Applications/Workflow: ServiceNow provides prebuilt, ready-to-use applications categorized based on the workflow they support. These categories include IT Workflow, Employee Workflow, Customer Workflow, and Creator Workflow, each with its own set of sub-functionalities tailored to specific business needs.



ServiceNow Platform Overview:

Service Delivery Model: ServiceNow operates on an Application Platform as a Service (APaaS) delivery model, which uniquely combines the three traditional service delivery models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). This model encompasses all necessary infrastructure, platforms, services, operating systems, and more.

Software Architecture: ServiceNow's architecture is organized into domains that are based on different tasks, data sets, and other criteria. While all users have access to the global domain,only select users have access to specific domains and their associated records. The platform is built on a multi-instance architecture, meaning each user or organization has their own separate instance and database. Access within ServiceNow is role-based, with roles categorized into users, groups, and permissions. Users are typically assigned to one or more groups, and each group can be granted multiple roles, which are essentially collections of permissions. A person without any role assigned is referred to as a self-service user.

User Authentication: When a user attempts to log into ServiceNow, the platform validates their credentials and grants access according to their assigned roles. ServiceNow supports multiple authentication methods, including local database authentication, External Single Sign-On (SSO), and LDAP, among others.

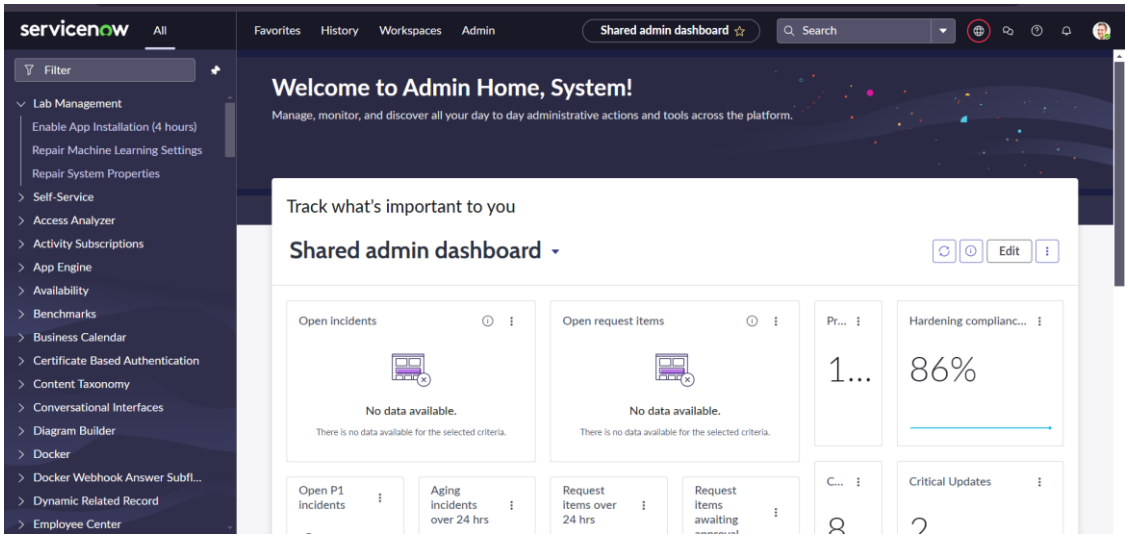
ServiceNow User Interface Overview:

ServiceNow UI has 3 main elements:

1) Banner frame on top
2) Application navigator on left
3) Content frame(remaining items on screen)

Banner Frame: The banner frame in ServiceNow is a central component of the interface, encompassing several important features. It includes the logo, which provides a shortcut to return to the main page. The System Administrator section allows users to manage their profile, impersonate another user, elevate roles for security purposes, and log out. The Tools section offers global search capabilities to find anything within the platform, connected chat for real-time communication with other users, and access to help resources. The Settings menu enables users to adjust general preferences, change themes, enable or disable forms, lists, and notifications, customize accessibility options, and modify developer settings. Additionally, users can access their favorites, review their history of recently accessed records or pages, navigate to various workspaces, and manage administrative functions directly from the banner frame.

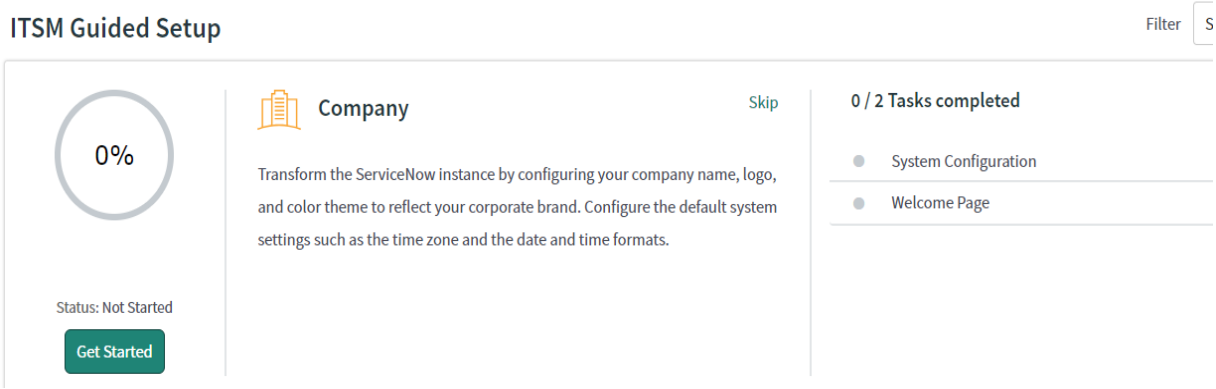
Application Navigator on Left: The Application Navigator on the left side of the interface is used to locate all the applications and modules within ServiceNow. It provides a filtering option to help users quickly find specific applications and modules according to their needs, streamlining navigation within the platform.



ServiceNow Branding Overview:

Branding plays a crucial role in accelerating user adoption, instilling confidence, and creating a comfortable user experience. It represents the identity of the company and can also be personalized to reflect specific organizational needs.

Guided Setup: Guided Setup assists users or system administrators in configuring various applications step by step. The setup process is divided into two main categories: IT Service Management (ITSM) and IT Operations Management (ITOM). ITSM covers the setup of the Configuration Management Database (CMDB), incident and problem/major incident management, and go-live procedures. ITOM, on the other hand, includes configurations for the MID Server, Discovery, Event Management, and more. Additional tools that can be utilized in the guided setup include the Service Portal and UI Builder.



Tailor the look of the page top banner - text / logo / color
Set the timezone, date, and time formats

Page header caption

My personal developer instance

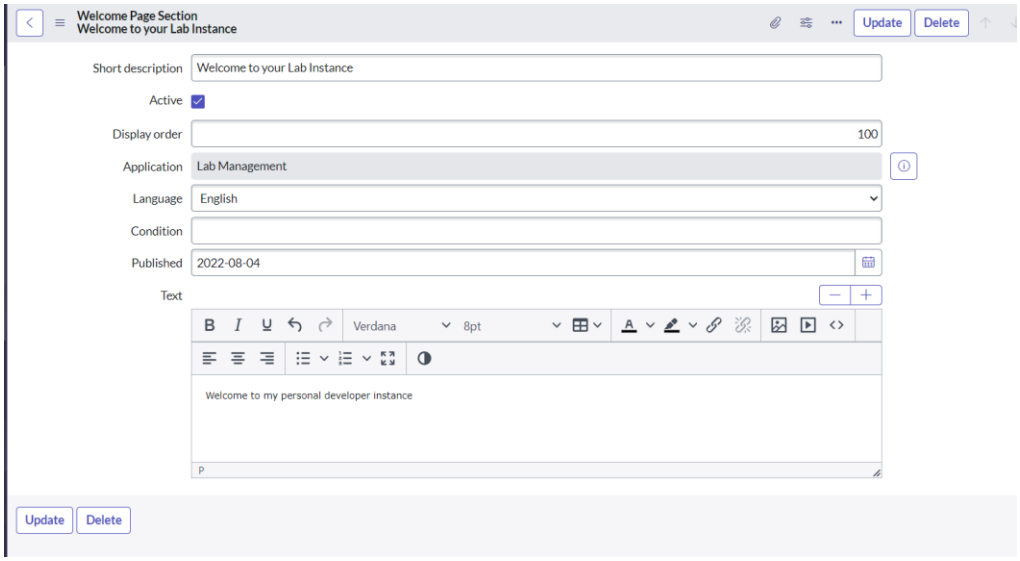
Browser tab title

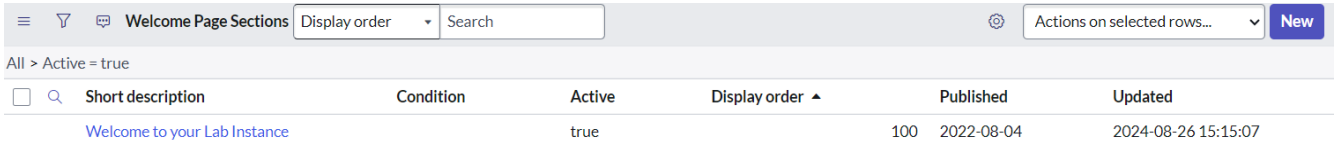
My personal developer instance

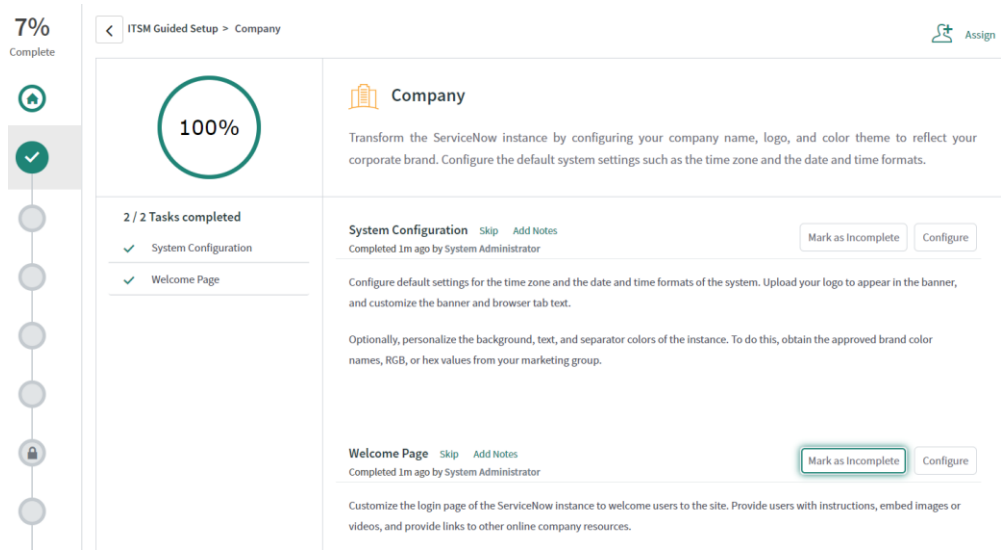
System timezone for all users unless overridden in the user's record

System (Etc/UTC) Configure available time zones

Banner image for UI16



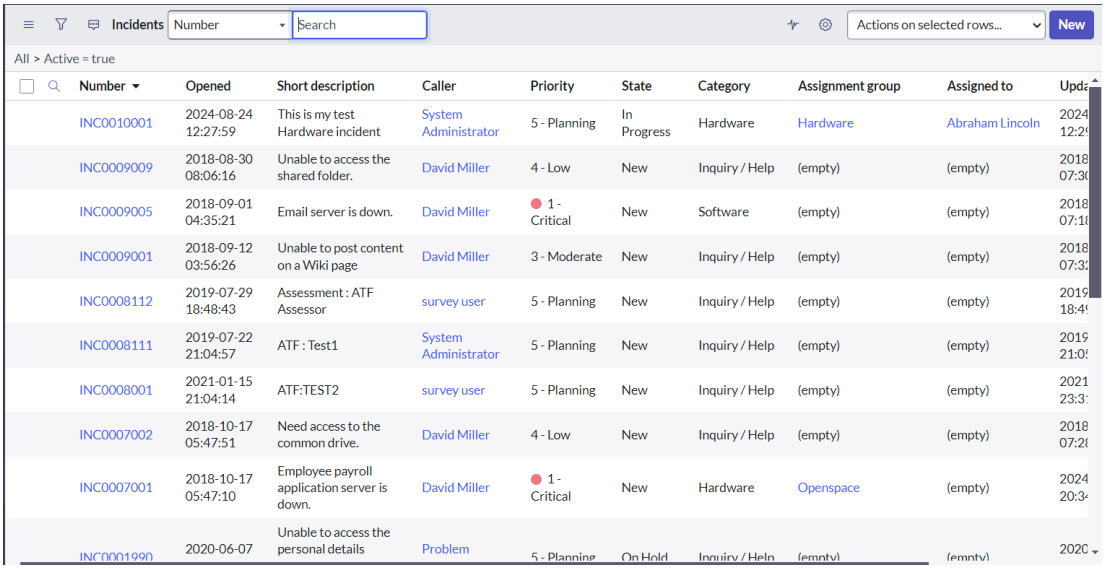


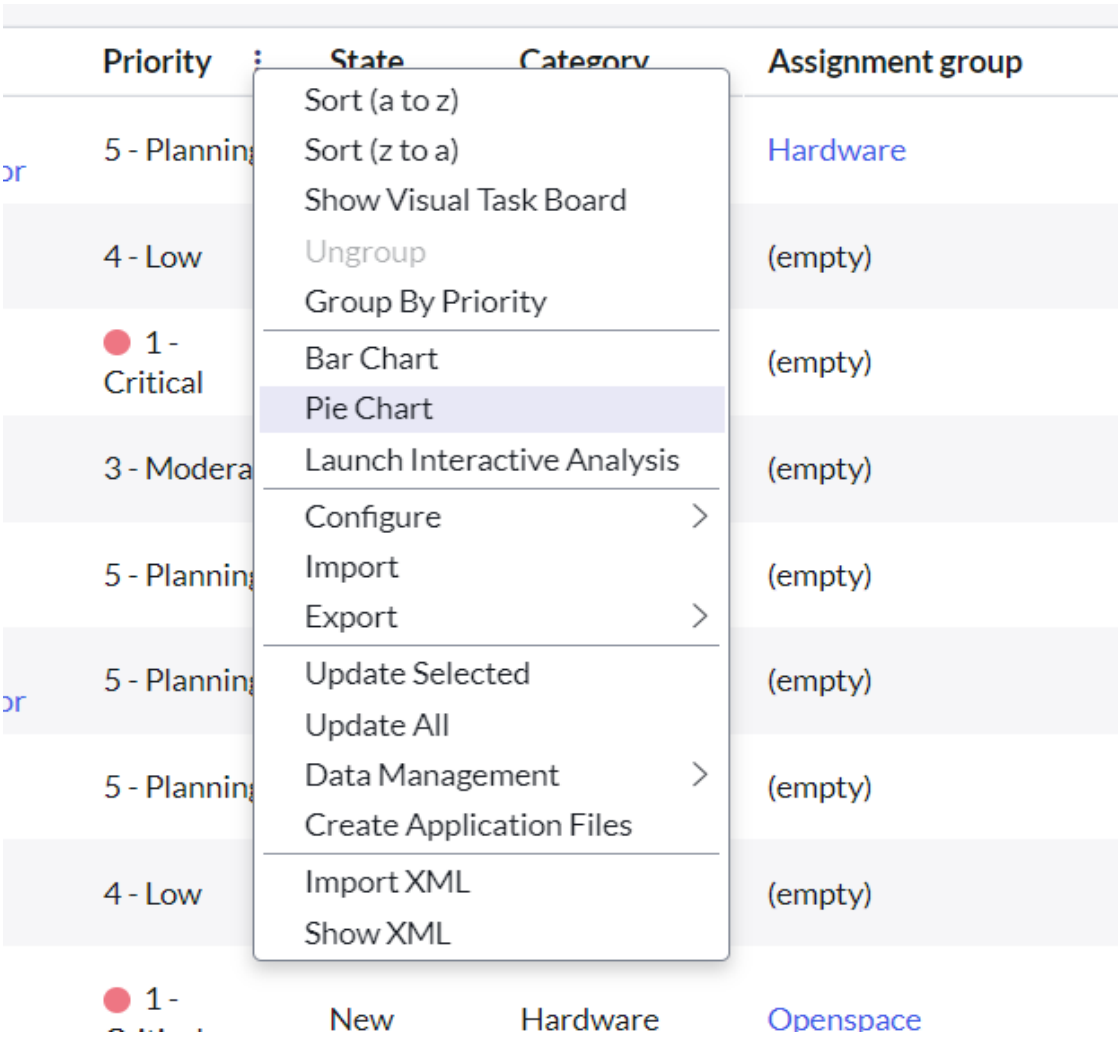


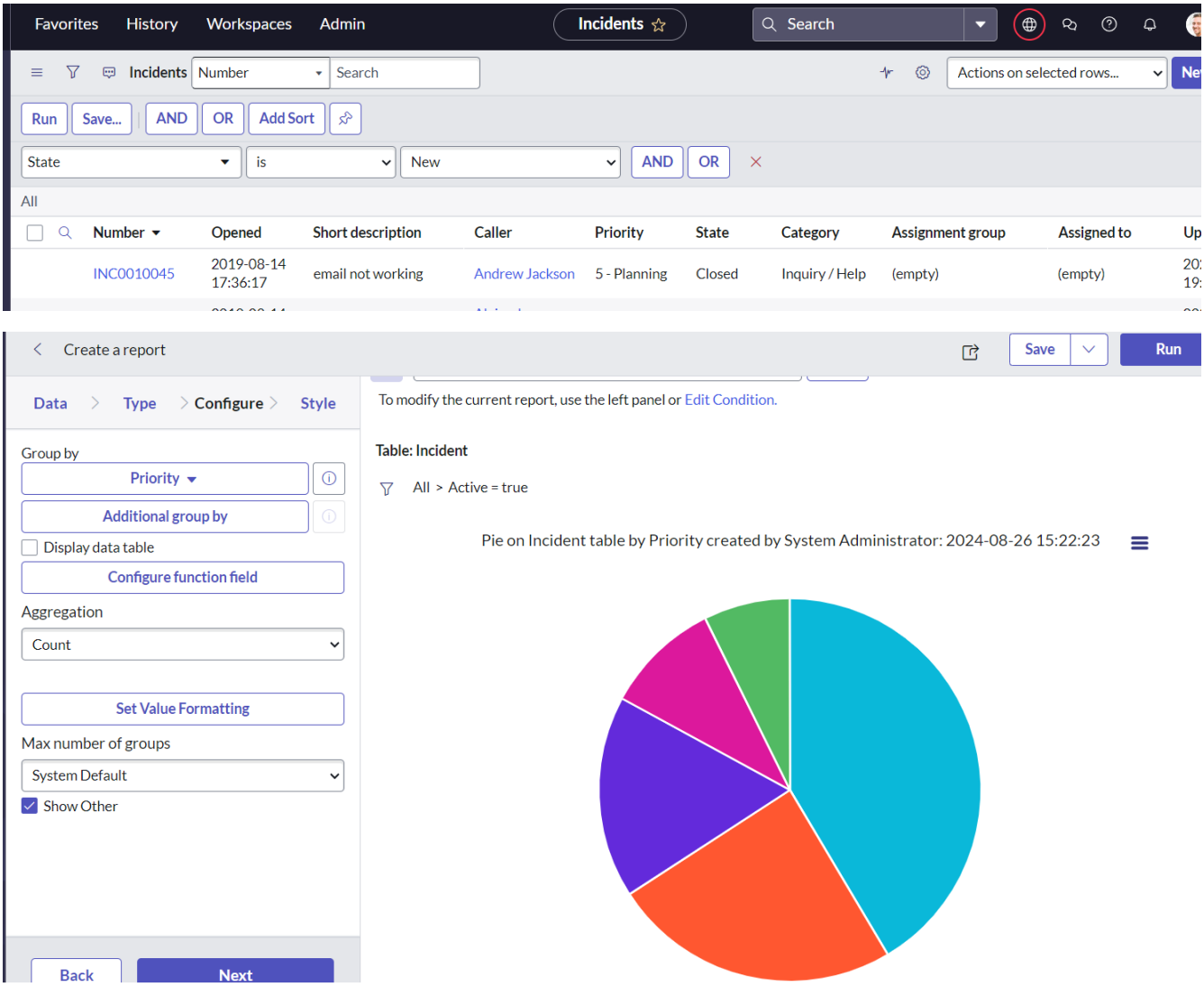
ServiceNow Lists and Filters:

List Interface (List View): The List Interface, or List View, is a user interface specifically designed to display records from database tables in a structured format. Each list resides within a table and includes various tools to sort, search, filter, and analyze data quickly and efficiently. Individual items in the list can also be viewed in detail. Users can access a list by typing the list name in the Application Navigator or by entering commands such as tablename.list or sys_tablename.list. If unfamiliar with these methods, typing sys_db_object.list in the Application Navigator will display all table names present in the database. In a list, each row represents a record, while each column corresponds to an attribute or field.

The list header includes a List Control menu with various properties, such as View, Filter, Group By, Show, Refresh List, and Create Favorite. Additional tools include a search bar for querying data (which supports wildcards like % and *), an activity stream for tracking all activities, and other features like a connection builder, breadcrumbs, and the ability to assign tags.


Incidents
Number
Search
Actions on selected rows...
New
All > Active = true
Number
Opened
Short description
Caller
Priority
State
Category
Assignment group
Assigned to
INC0010001 2024-08-24 12:27:59 This is my test Hardware incident System Administrator 5 - Planning In Progress Hardware Hardware Abraham Lincoln
INC0009009 2018-08-30 08:06:16 Unable to access the shared folder. David Miller 4 - Low New Inquiry / Help (empty) (empty)
INC0009005 2018-09-01 04:35:21 Email server is down. David Miller 1 - Critical New Software (empty) (empty)
INC0009001 2018-09-12 03:56:26 Unable to post content on a Wiki page David Miller 3 - Moderate New Inquiry / Help (empty) (empty)
INC0008112 2019-07-29 18:48:43 Assessment : ATF Assessor survey user 5 - Planning New Inquiry / Help (empty) (empty)
INC0008111 2019-07-22 21:04:57 ATF : Test1 System Administrator 5 - Planning New Inquiry / Help (empty) (empty)
INC0008001 2021-01-15 21:04:14 ATF:TEST2 survey user 5 - Planning New Inquiry / Help (empty) (empty)
INC0007002 2018-10-17 05:47:51 Need access to the common drive. David Miller 4 - Low New Inquiry / Help (empty) (empty)
INC0007001 2018-10-17 05:47:10 Employee payroll application server is down. David Miller 1 - Critical New Hardware Openspace (empty)
2020-06-07 Unable to access the personal details Problem


Priority
State
Category
Assignment group
Sort (a to z)
Sort (z to a)
Show Visual Task Board
Ungroup
Group By Priority
Bar Chart
Pie Chart
Launch Interactive Analysis
Configure
Import
Export
Update Selected
Update All
Data Management
Create Application Files
Import XML
Show XML
5 - Planning
Hardware
4 - Low
(empty)
1 - Critical
3 - Modera
5 - Planning
5 - Planning
5 - Planning
4 - Low
1 -
New
Hardware
Openspace



Forms in ServiceNow:

Form Interface: A form represents a single record that users can view and interact with. Forms can be accessed by opening a record from a list or by entering the record's ID in the global search. To view the form for a reference record, such as a department field, click on the 'Open Record' button in the preview. This action will reveal two additional fields: the list field, which provides tools to create one-to-many relationships between the record and the reference table, and the journal field, which allows users to enter notes into a record that can be viewed by specific users only.

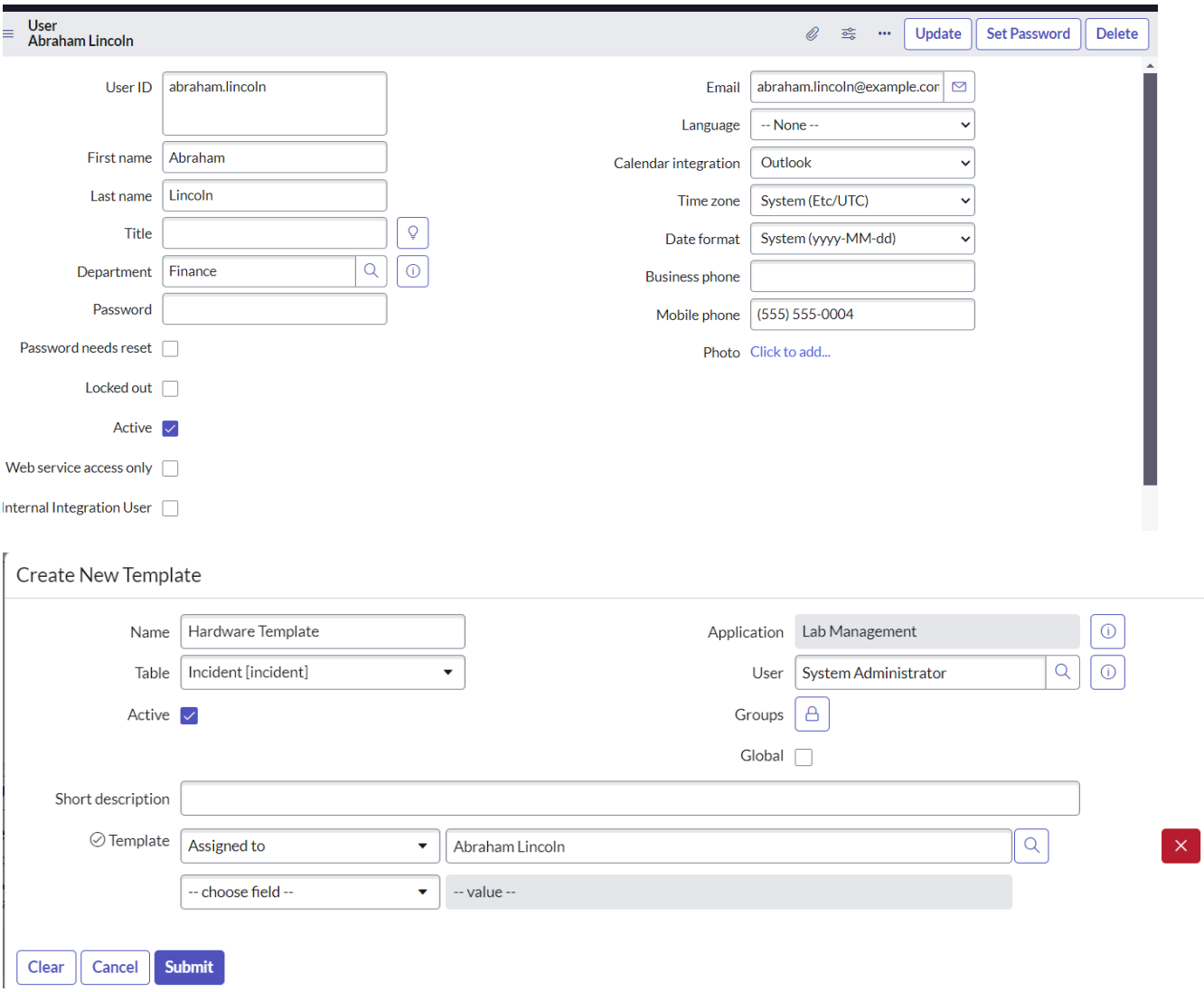
Users can copy a record and continue making changes, or, to permanently copy a record, they should update it. The 'Insert' option allows saving a copy and then returns the user to the list. The 'Insert and Stay' option enables users to copy the record while remaining on the same page, without being redirected to the list view.

Forms are organized into sections that arrange fields and other data. A special form element, known as a Form Related List, displays records from another table that are related to the user. Additionally, a

form formatter is a specialized form element that displays information not tied to a specific field in a record; it contains information only, without editable fields. Only users with certain admin-type roles can create and edit form views.

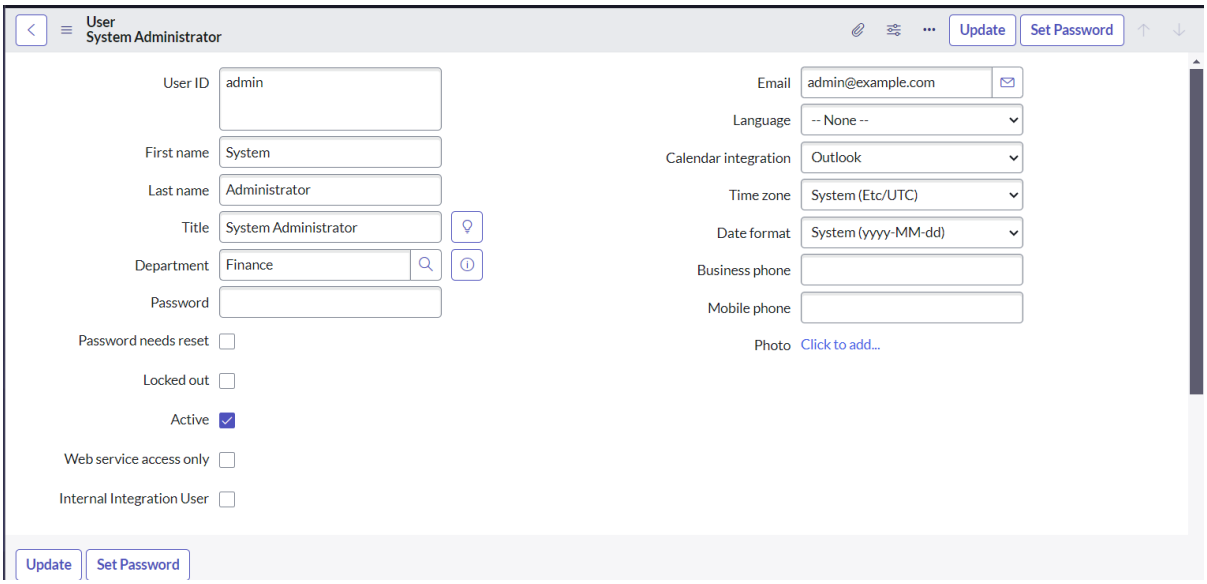
Template: Templates are used to streamline the process of creating new records by automatically populating certain form fields. When you create a template for a record with the same name as that record, it can be accessed through the list view by clicking on the three dots in the top-right corner and selecting "Toggle Template Bar." Alternatively, users can toggle the template bar on or off and create a template directly.

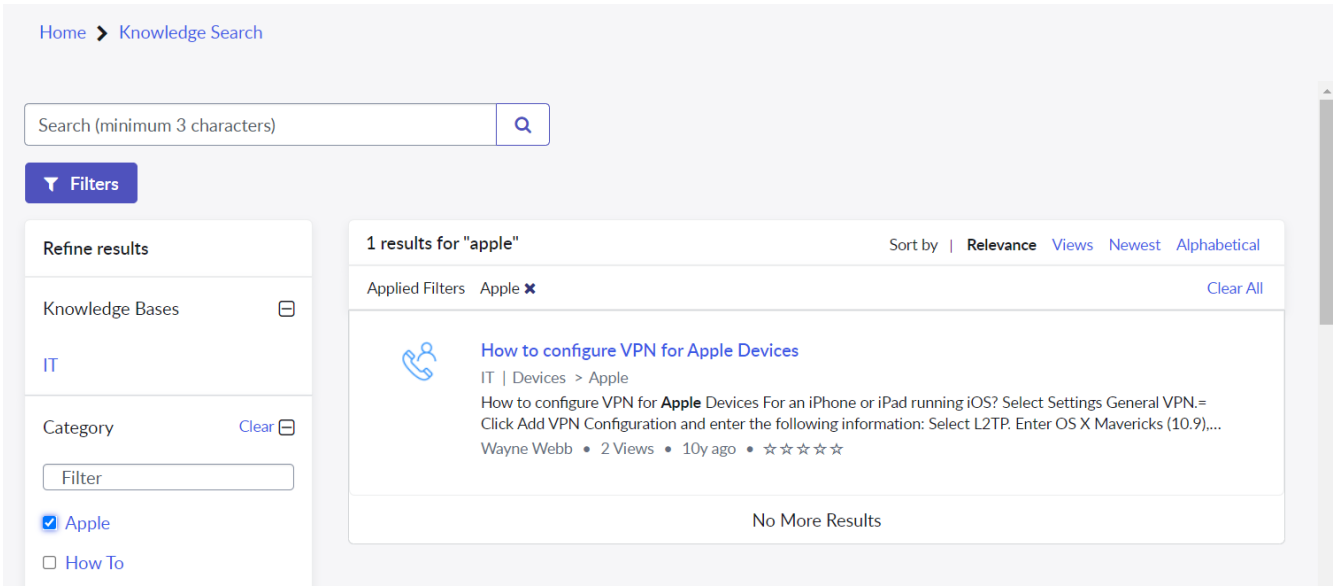
Templates offer features such as setting field values regardless of their visibility, and they can also include variables. Saving a template with the same name as the table will make it the default template, which will automatically be applied to every new record created by the user.

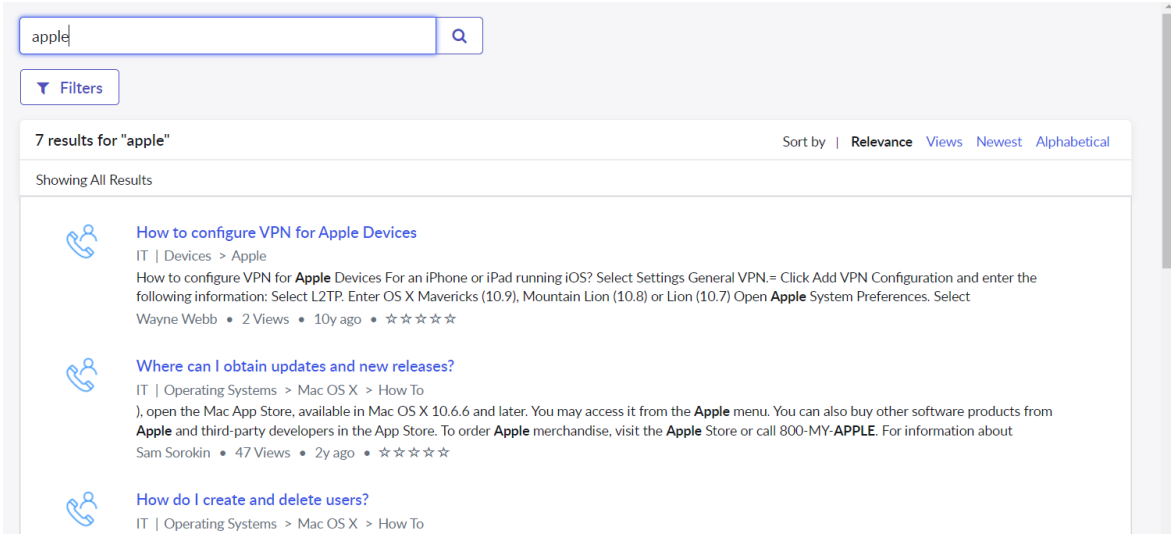


A Hands-on ServiceNow Tool Demo:

Knowledge Management: Knowledge bases serve as libraries of important articles and documentation that can be created or published to provide users with access to valuable information. These resources help users of all types better understand how to solve problems within the application, offering guidance and support for navigating various issues.







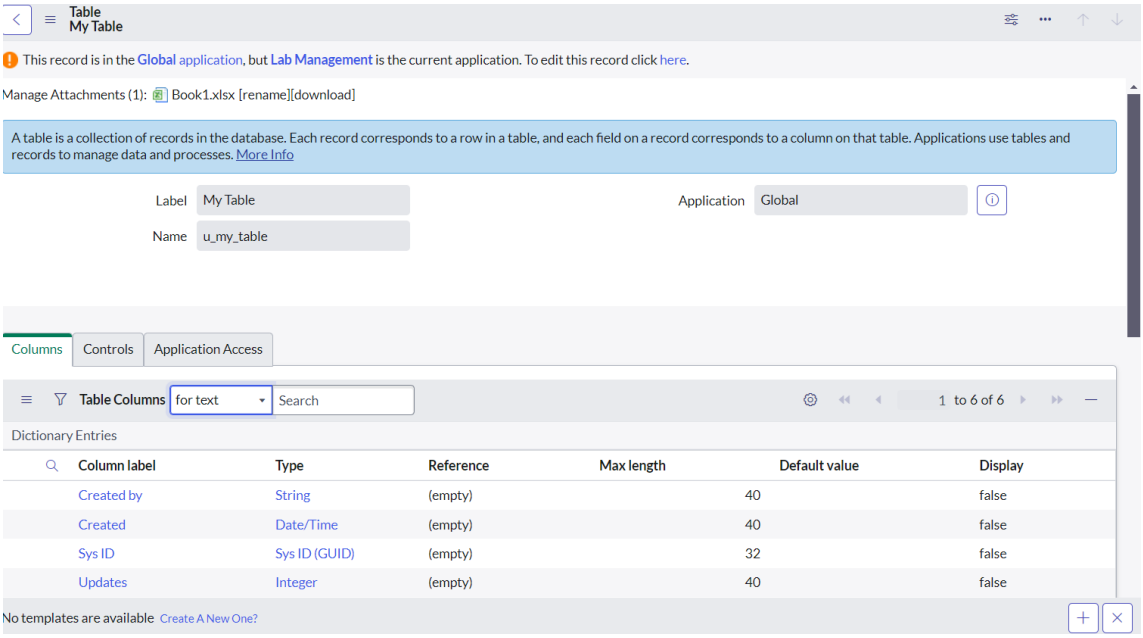
How to configure VPN for Apple Devices

Authored by Wayne Webb • 10y ago • 3 Views • ☆☆☆☆☆

How to configure VPN for Apple Devices

For an iPhone or iPad running iOS?

1. *Select* **Settings > General > VPN.**=
2. *Click* **Add VPN Configuration** and *enter* the **following information:**
3. 1. Select **L2TP.**
   2. Enter **Servicenow VPN** in the **Description** field.
   3. Enter **vpn-nu.vpn.servicenow.edu** in the **Server** field.
   4. Enter your **NetID** in the **Account** field.
   5. Enter your **NetID password** in the **Password** field.
   6. Enter **servicenow** (case sensitive) in the **Secret** field.



Introduction to Importing Data in ServiceNow:

Data Entities: There are 3 stages mainly

1) Source table
2) Staging/Import set table
3) Target table

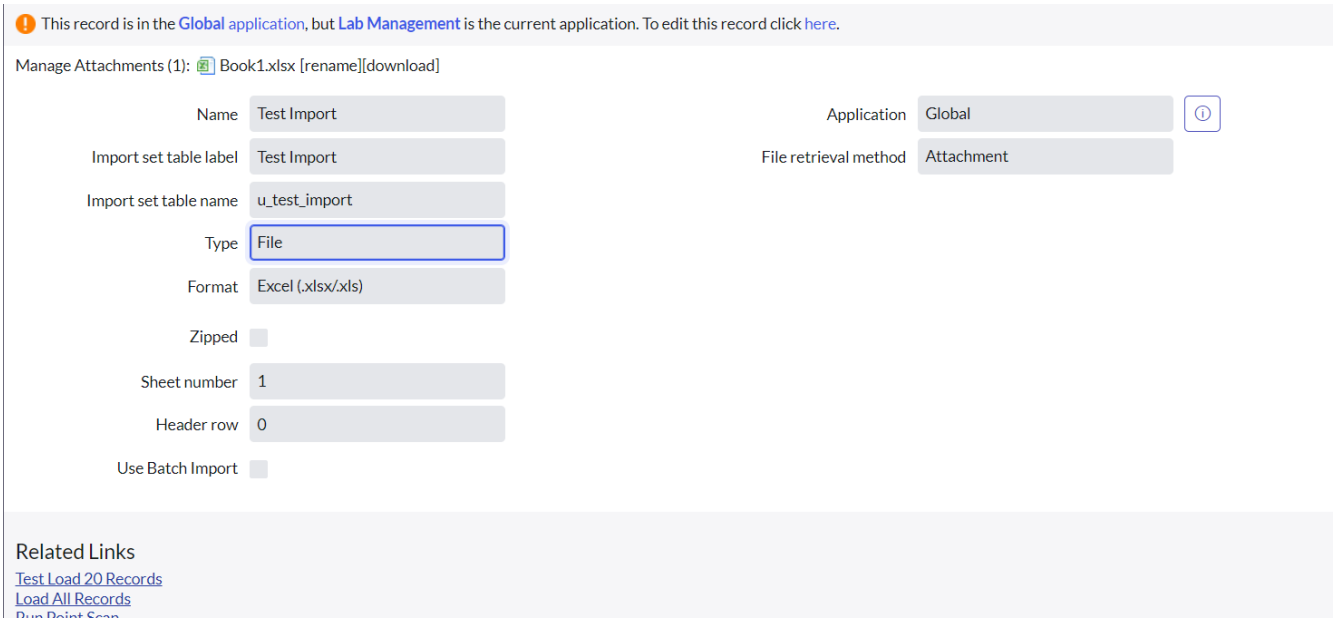
Source: The source refers to the entity containing data that is to be imported into ServiceNow.

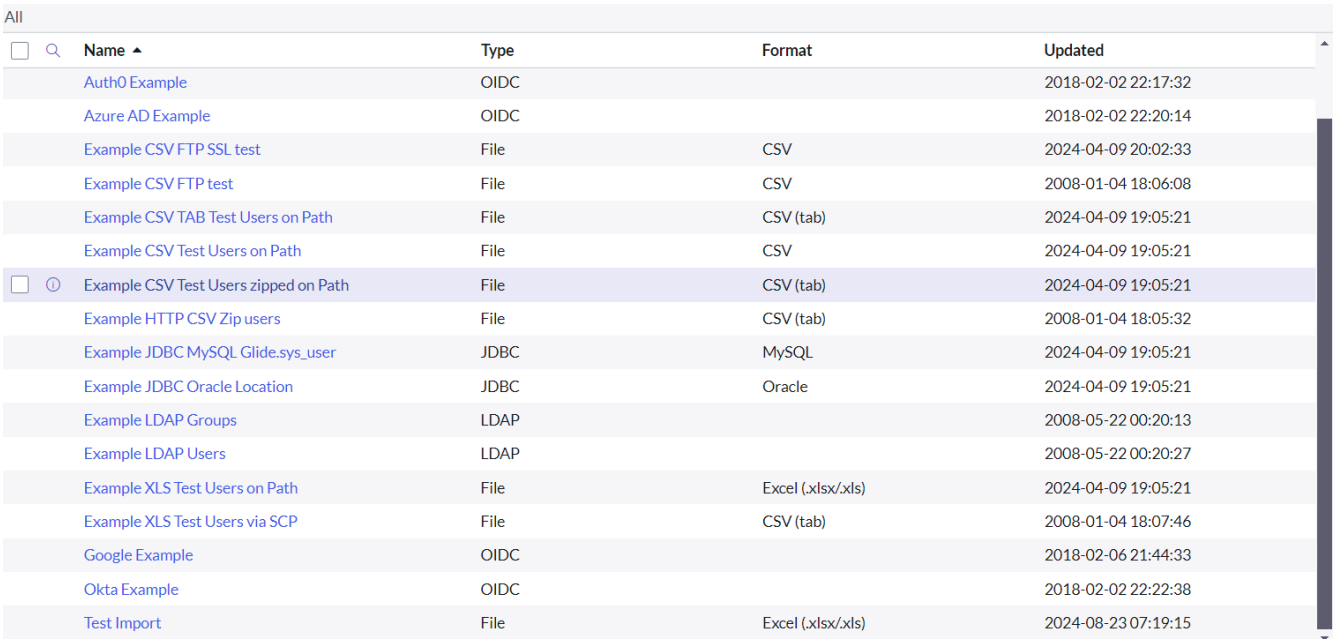
Staging/Import Set: A staging or import set is a table automatically created by ServiceNow as part of the import process. It is used to temporarily store data before it is processed and imported into the target table. This staging table enhances performance by managing the data import efficiently.

Target: The target is the ServiceNow table to which the data will be imported after being processed from the staging table.

Creating a Data Source in ServiceNow:

The data source is a record in a table that stores the parameters the platform needs. We can access it by writing sys_data_source.list in application navigator or else type system import set. in the application navigator. when we run it ServiceNow will internally create a field for each attribute.





Name	Type	Format	Updated
Auth0 Example	OIDC		2018-02-02 22:17:32
Azure AD Example	OIDC		2018-02-02 22:20:14
Example CSV FTP SSL test	File	CSV	2024-04-09 20:02:33
Example CSV FTP test	File	CSV	2008-01-04 18:06:08
Example CSV TAB Test Users on Path	File	CSV (tab)	2024-04-09 19:05:21
Example CSV Test Users on Path	File	CSV	2024-04-09 19:05:21
Example CSV Test Users zipped on Path	File	CSV (tab)	2024-04-09 19:05:21
Example HTTP CSV Zip users	File	CSV (tab)	2008-01-04 18:05:32
Example JDBC MySQL Glide.sys_user	JDBC	MySQL	2024-04-09 19:05:21
Example JDBC Oracle Location	JDBC	Oracle	2024-04-09 19:05:21
Example LDAP Groups	LDAP		2008-05-22 00:20:13
Example LDAP Users	LDAP		2008-05-22 00:20:27
Example XLS Test Users on Path	File	Excel (.xlsx/.xls)	2024-04-09 19:05:21
Example XLS Test Users via SCP	File	CSV (tab)	2008-01-04 18:07:46
Google Example	OIDC		2018-02-06 21:44:33
Okta Example	OIDC		2018-02-02 22:22:38
Test Import	File	Excel (.xlsx/.xls)	2024-08-23 07:19:15

Understanding Import Sets in ServiceNow:

When we run import for the first time ServiceNow will check if a staging table is already created for that table if it's not created then the staging table will make a new one based on the parameters we have given in the data source then it will pull data from loaded data and prepares itself to get loaded into target data. ServiceNow provides an out of box table that allows us to manage the data that is being loaded in our staging table i.e. import sets.

Progress

Name	ImportProcessor
State	Complete
Completion code	Success
Message	Processed: 4, inserts 4, updates 0, errors 0, empty and ignored 0, ignored errors 0 (0:00:00.113)

Next steps...

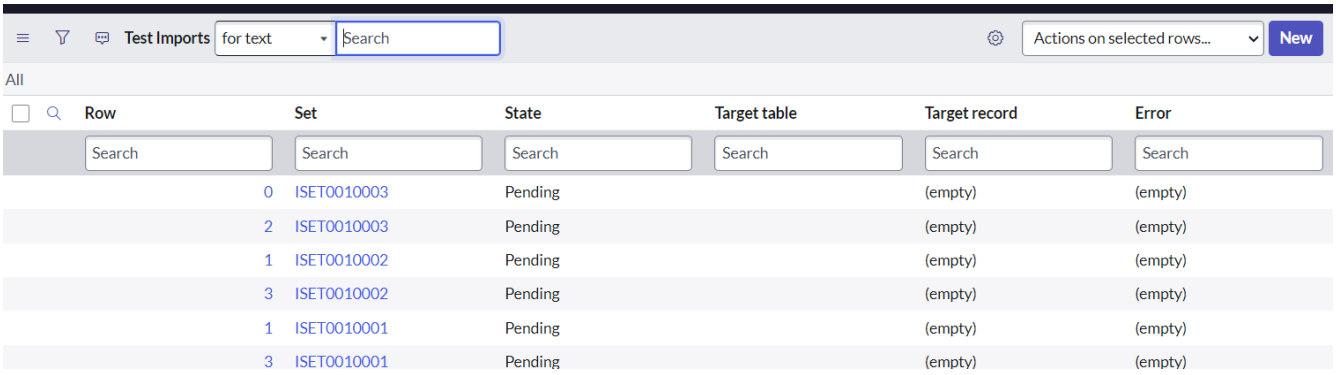
Import sets — Go to the import sets for this data load

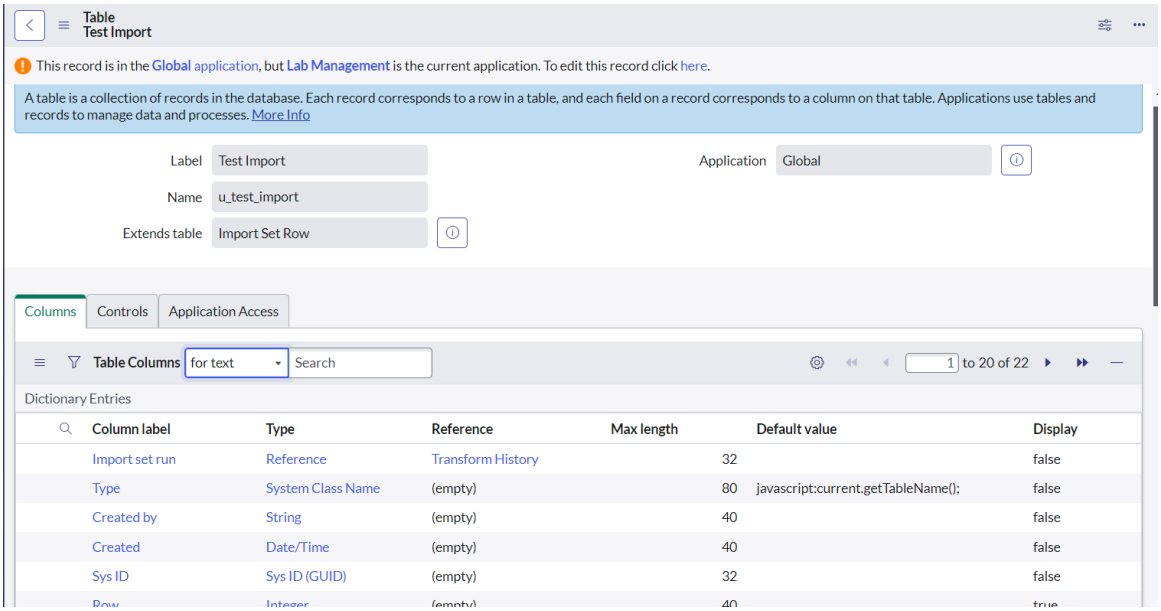
Loaded data — Go to the newly imported data inside the staging table: u_test_import

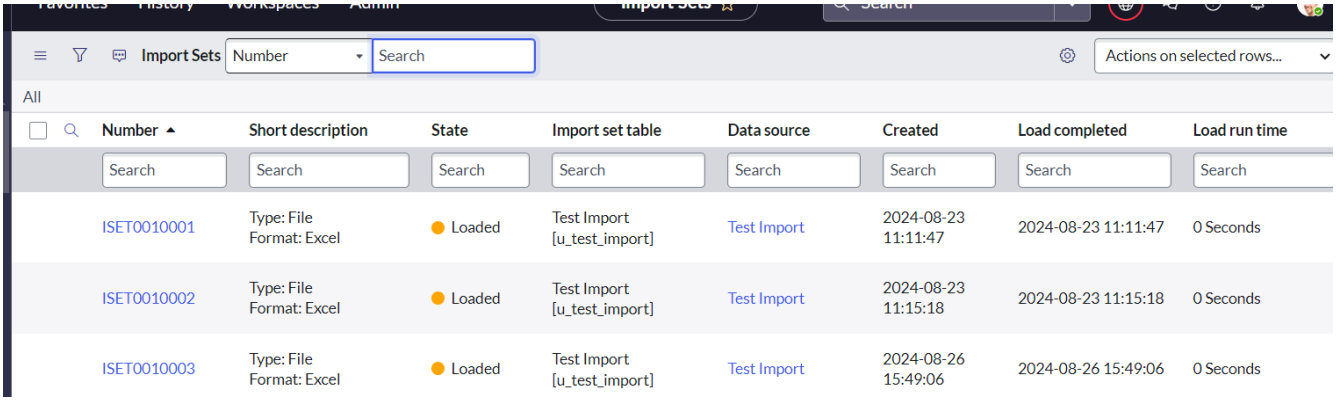
Create transform map — Create a transform map for the newly staged data

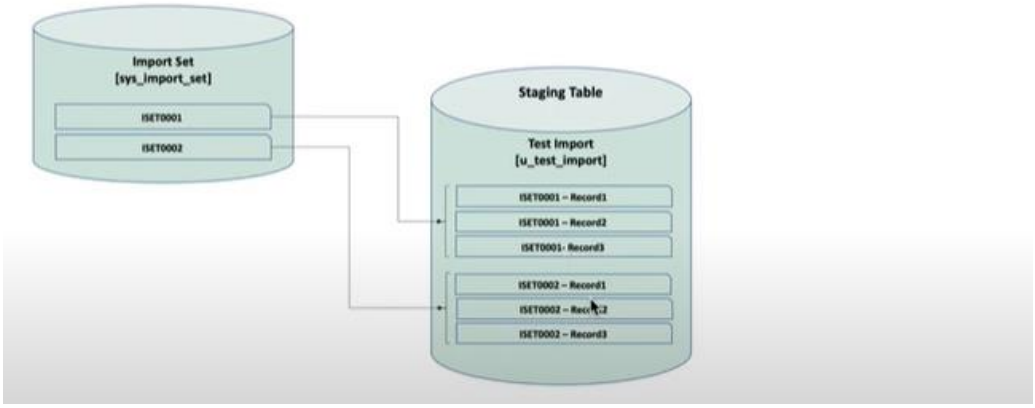
Run Transform — Transform a loaded import set using an existing transform map

Import log — View the import log









ServiceNow Transform Maps & Field Maps:

To convert data from staging table to target we need 2 additional fields.

1) Field map
2) Transform map

Field Map: A field map defines how data flows from the staging table to the target table. It specifies the mapping of fields between these tables. Field maps can be accessed by entering the sys_transform_entry.list in the Application Navigator.

Transform Map: A transform map acts as a grouping mechanism for field maps. It wraps the field-to-field mappings into a single unit, allowing for organized data transformation processes. Transform maps can be accessed by entering the sys_transform_map.list in the Application Navigator.

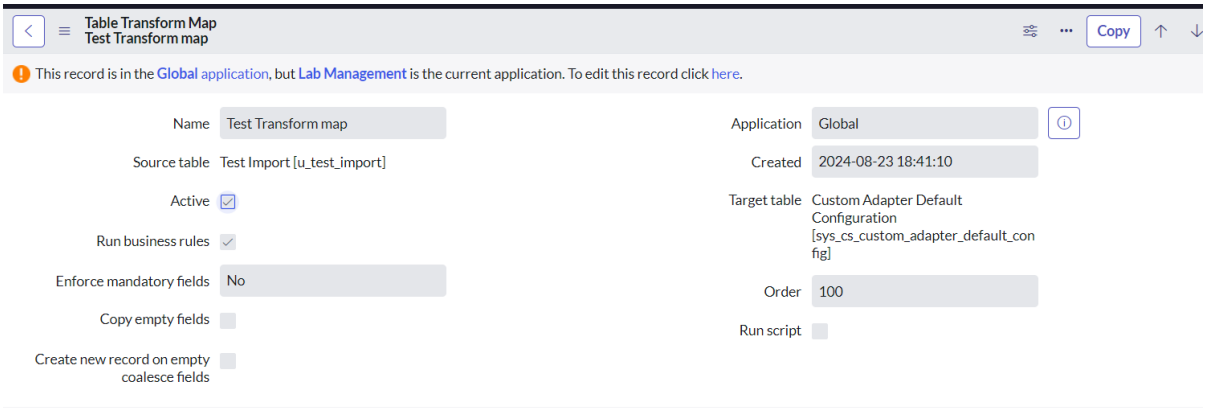
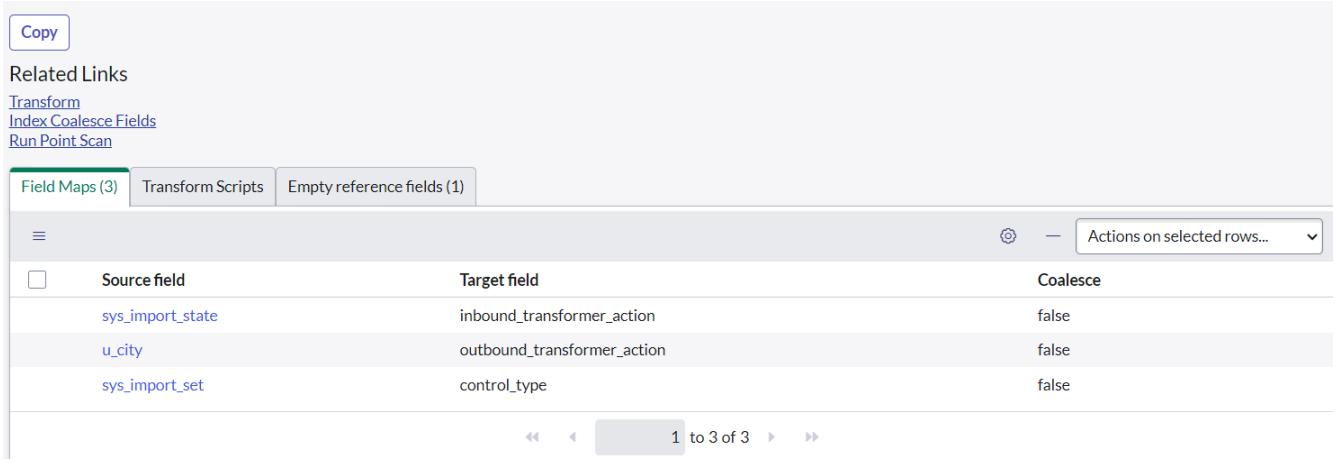
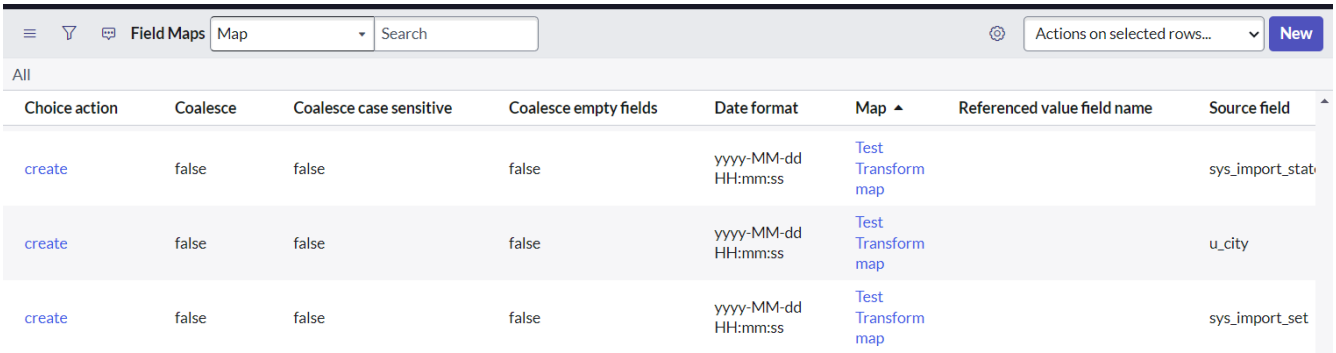
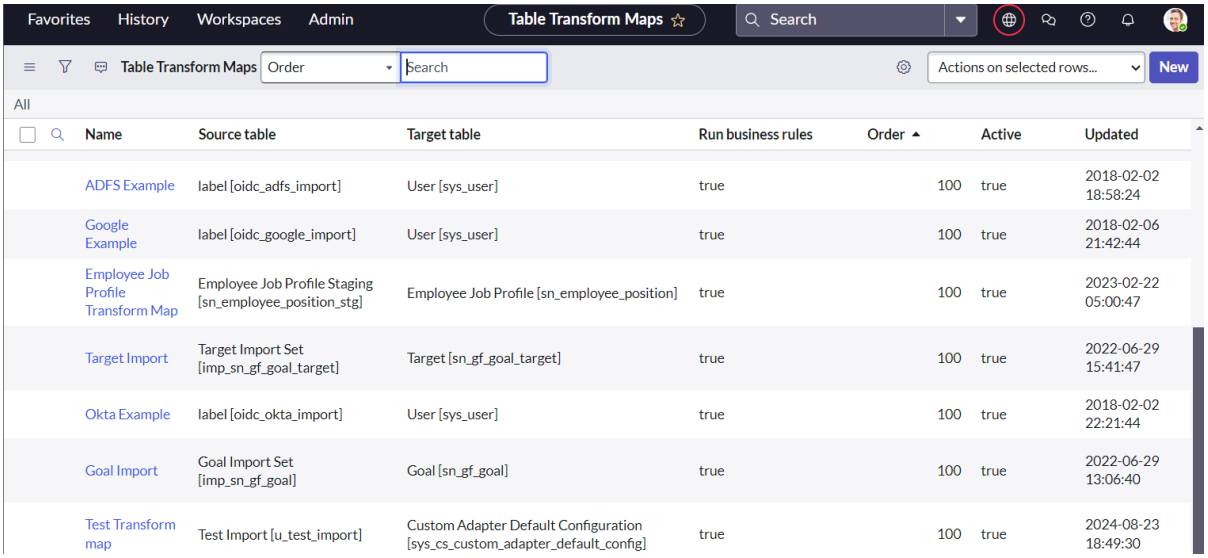


Table Transform Map
Test Transform map
Copy
This record is in the Global application, but Lab Management is the current application. To edit this record click here.
Name
Test Transform map
Source table
Test Import [u_test_import]
Active
Run business rules
Enforce mandatory fields
No
Copy empty fields
Create new record on empty coalesce fields
Application
Global
Created
2024-08-23 18:41:10
Target table
Custom Adapter Default Configuration [sys_cs_custom_adapter_default_config]
Order
100
Run script
Copy
Related Links
Transform
Index Coalesce Fields
Run Point Scan


Copy
Related Links
Transform
Index Coalesce Fields
Run Point Scan
Field Maps (3)
Transform Scripts
Empty reference fields (1)
Actions on selected rows...
Source field
Target field
Coalesce
sys_import_state
inbound_transformer_action
false
u_city
outbound_transformer_action
false
sys_import_set
control_type
false
1 to 3 of 3


Field Maps
Map
Search
Actions on selected rows...
New
All
Choice action
Coalesce
Coalesce case sensitive
Coalesce empty fields
Date format
Map
Referenced value field name
Source field
create
false
false
false
yyyy-MM-dd HH:mm:ss
Test Transform map
sys_import_stat
create
false
false
false
yyyy-MM-dd HH:mm:ss
Test Transform map
u_city
create
false
false
false
yyyy-MM-dd HH:mm:ss
Test Transform map
sys_import_set



Name	Source table	Target table	Run business rules	Order	Active	Updated
ADFS Example	label [oidc_adfs_import]	User [sys_user]	true	100	true	2018-02-02 18:58:24
Google Example	label [oidc_google_import]	User [sys_user]	true	100	true	2018-02-06 21:42:44
Employee Job Profile Transform Map	Employee Job Profile Staging [sn_employee_position_stg]	Employee Job Profile [sn_employee_position]	true	100	true	2023-02-22 05:00:47
Target Import	Target Import Set [imp_sn_gf_goal_target]	Target [sn_gf_goal_target]	true	100	true	2022-06-29 15:41:47
Okta Example	label [oidc_okta_import]	User [sys_user]	true	100	true	2018-02-02 22:21:44
Goal Import	Goal Import Set [imp_sn_gf_goal]	Goal [sn_gf_goal]	true	100	true	2022-06-29 13:06:40
Test Transform map	Test Import [u_test_import]	Custom Adapter Default Configuration [sys_cs_custom_adapter_default_config]	true	100	true	2024-08-23 18:49:30

ServiceNow Incident Management Tutorial and Task Administration:

A task is a piece of work that needs to be done. In ServiceNow each task I represented by a record in a database named task. The task has 3 main tables under it many of which are:

1) Change request
2) Incident
3) Problem

The main task table is created through these 3 First we created these which in turn creates the task table. The task table contains general attributes, and these 3 tables contain task-related specific attributes according to what task it is assigned to 1 out of 3. Task assignment can be done to an individual user or a group of users(or both). The task can also be done collaboratively with other users. User presence allows multiple users to view and update records simultaneously. Changes can be viewed in 2 ways one is the active viewer and another is real-time editing(pulse).

Task Management: Defining and managing tasks in ServiceNow allows one to take common work that needs to be done and build in a repeatable process to efficiently get it done. Service level agreements track the amount of time a task has been open to ensure they are completed within the allotted time. Assignment rules auto-assign tasks to users./groups.

Assignment Rules: An assignment rule is a record in the ServiceNow database that instructs the platform on how to automatically populate the "Assigned To" and "Assignment Group" fields when tasks are created. These rules allow tasks to be automatically assigned to a specific user or group based on predefined criteria. Assignment rules can be accessed by entering sys_rule_assignment.list in the Application Navigator.

Assignment Lookup Rules: Assignment lookup rules are specifically created for incident tasks and cannot be applied to other task tables. They are less powerful than general assignment rules, offering more limited functionality. Assignment lookup rules can be accessed by entering dl_u_assignment.list in the Application Navigator.

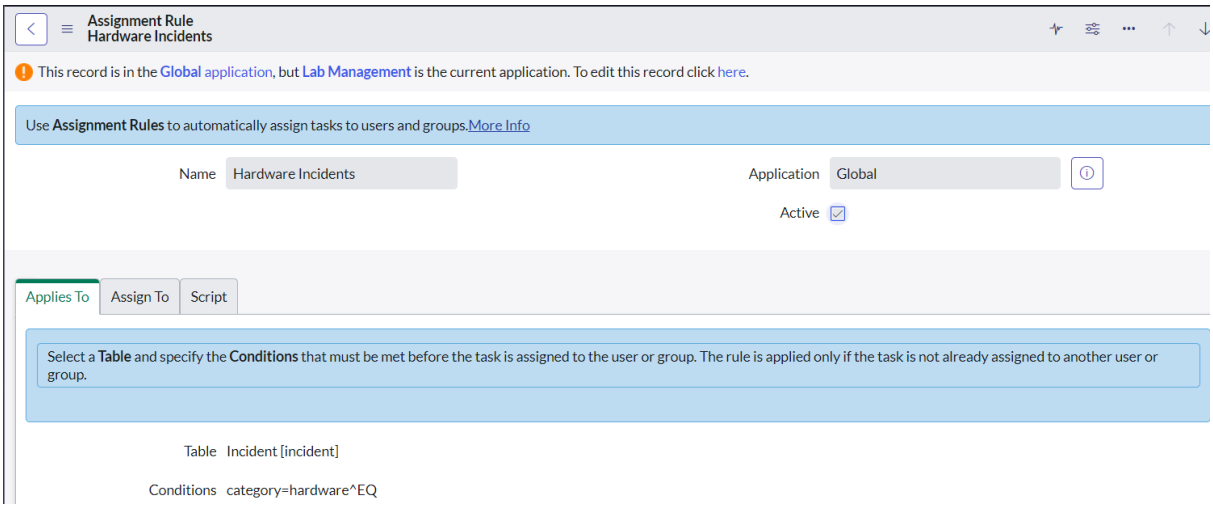
Visual Task Board: Visual Task Boards offer a graphical, drag-and-drop interface for viewing and managing tasks. They are particularly useful for identifying bottlenecks and visually organizing work. Tasks are represented by lanes and cards, where each lane categorizes tasks, and each card provides a brief description of a task. There are three main types of Visual Task Boards:

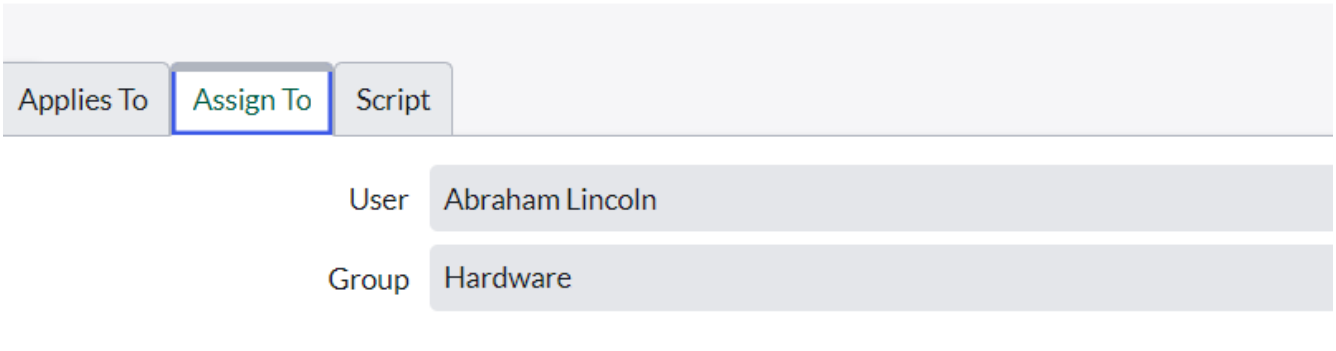
1) Guided
2) Flexible
3) Freedom

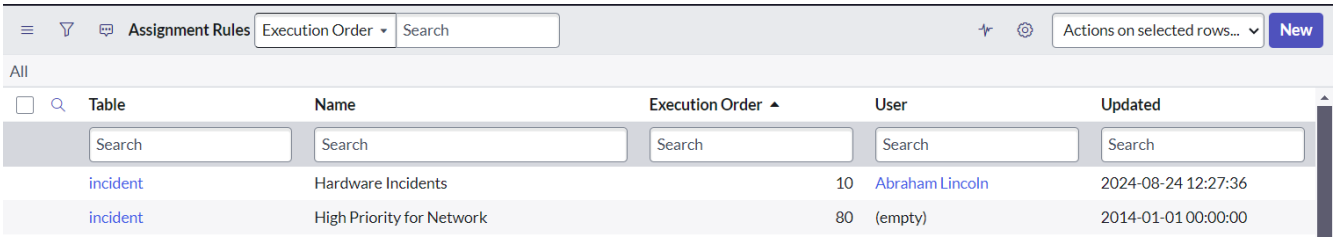
Guided: Guided boards come with a predefined set of values as lanes. When tasks (represented as cards) are moved between lanes, the task values automatically change according to the new lane.

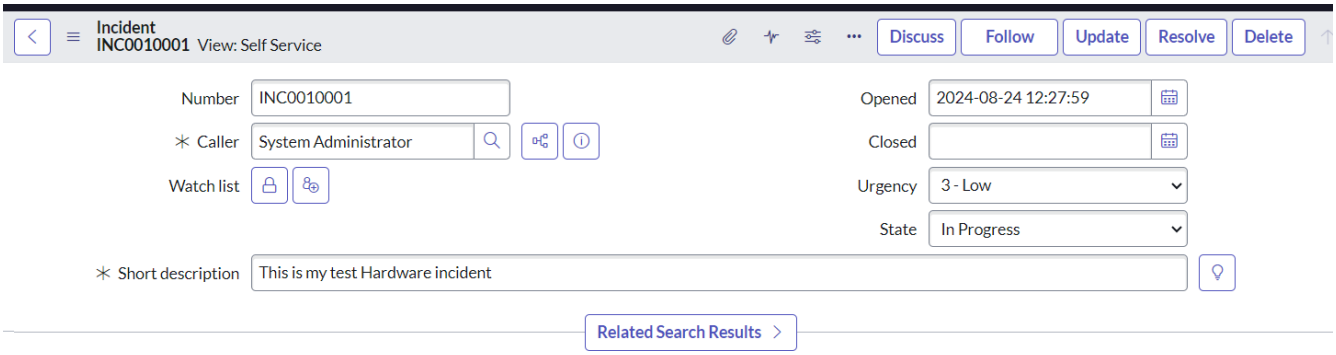
Flexible: Flexible boards do not have a predefined set of lanes, allowing users to create and arrange lanes as needed. Task values do not change when cards are moved between lanes, offering greater flexibility in task management.

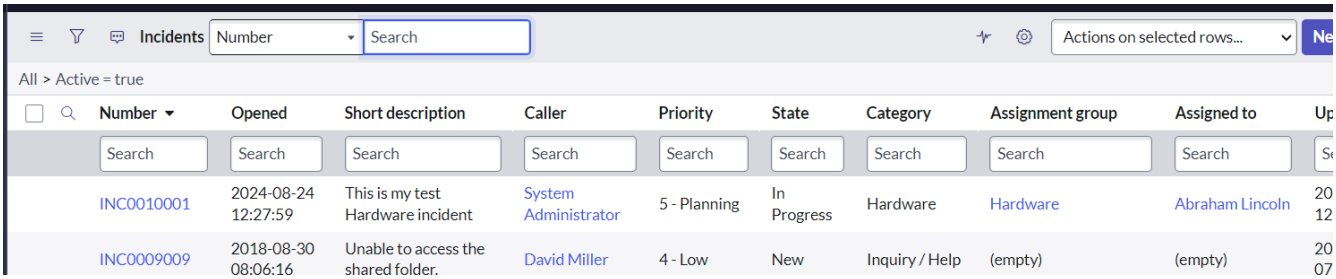
Freeform: Freeform boards are not created from a list and are mainly used for personalized work management. They are ideal for managing private tasks and organizing work according to the user's preferences without predefined constraints.

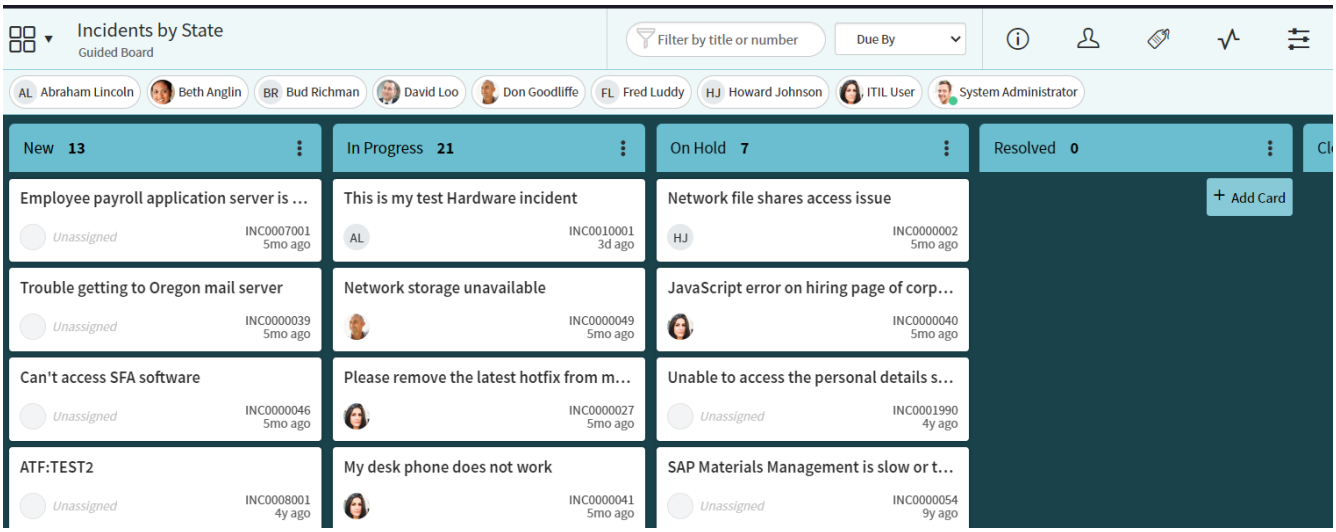












ServiceNow Reporting Tutorial:

ServiceNow reporting consists of 4 main parts for creating, scheduling,sharing, and displaying:

1) Report

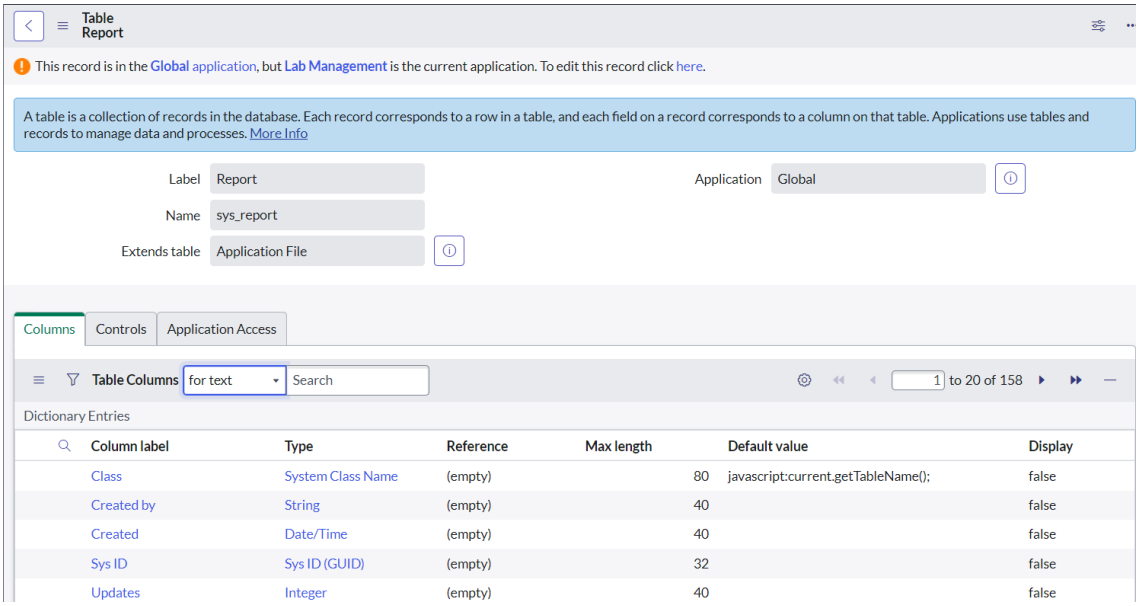
2) Report Source
3) Scheduled email of report
4) Report users and groups
5) Dashboard

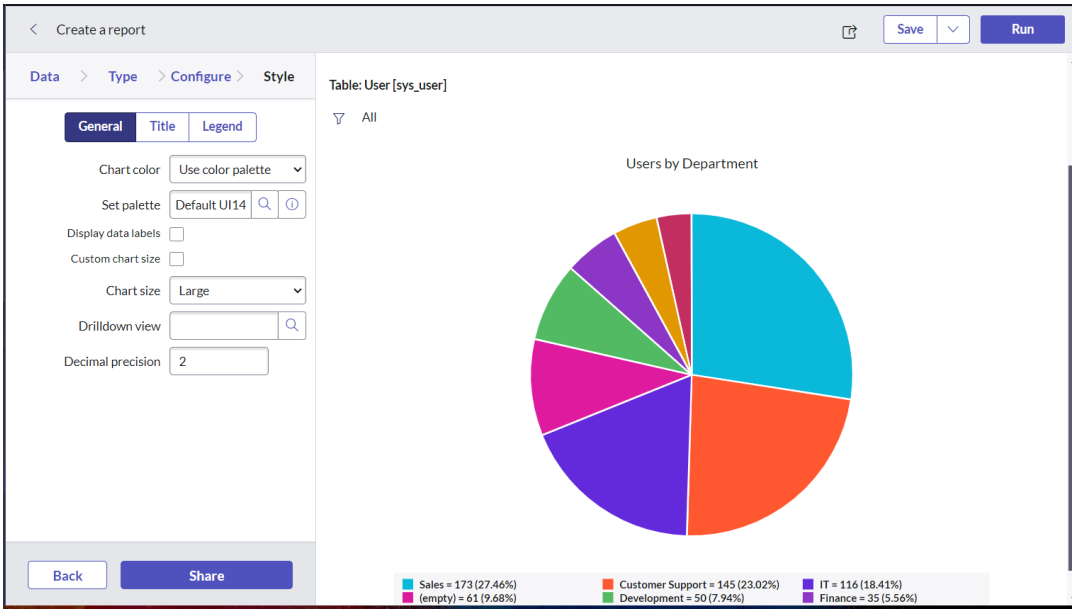
Report: The Report table in ServiceNow is a system table used to create and manage reports within the ServiceNow database. Reports can be accessed via the Application Navigator by entering sys_report.list, through ServiceNow Studio, or directly from an existing list view. Key fields in the Report table include System ID, Title, Source Type, Table, and Filter.

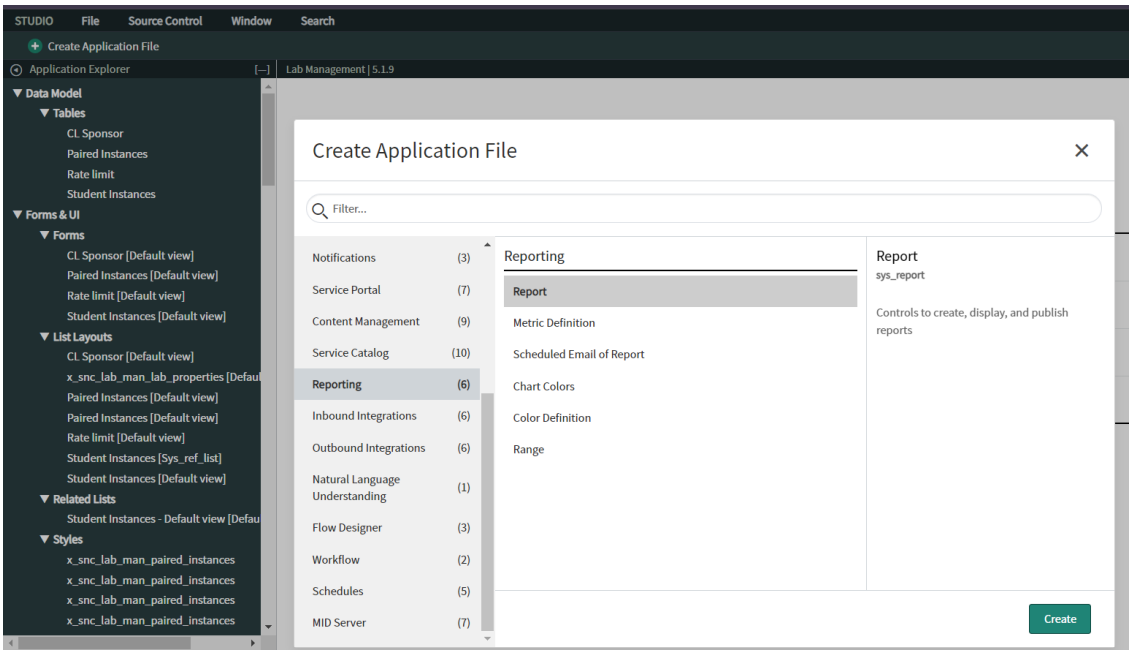
Report Source: The Report Source allows for storing and reusing saved queries to retrieve data from a source table and populate a report. When a report is scheduled, a record is inserted into the Scheduled Email of Report table. Report sources can be accessed by entering sysauto_report in the Application Navigator. Key fields in this table include Sys ID, Run Time, and others related to scheduling.

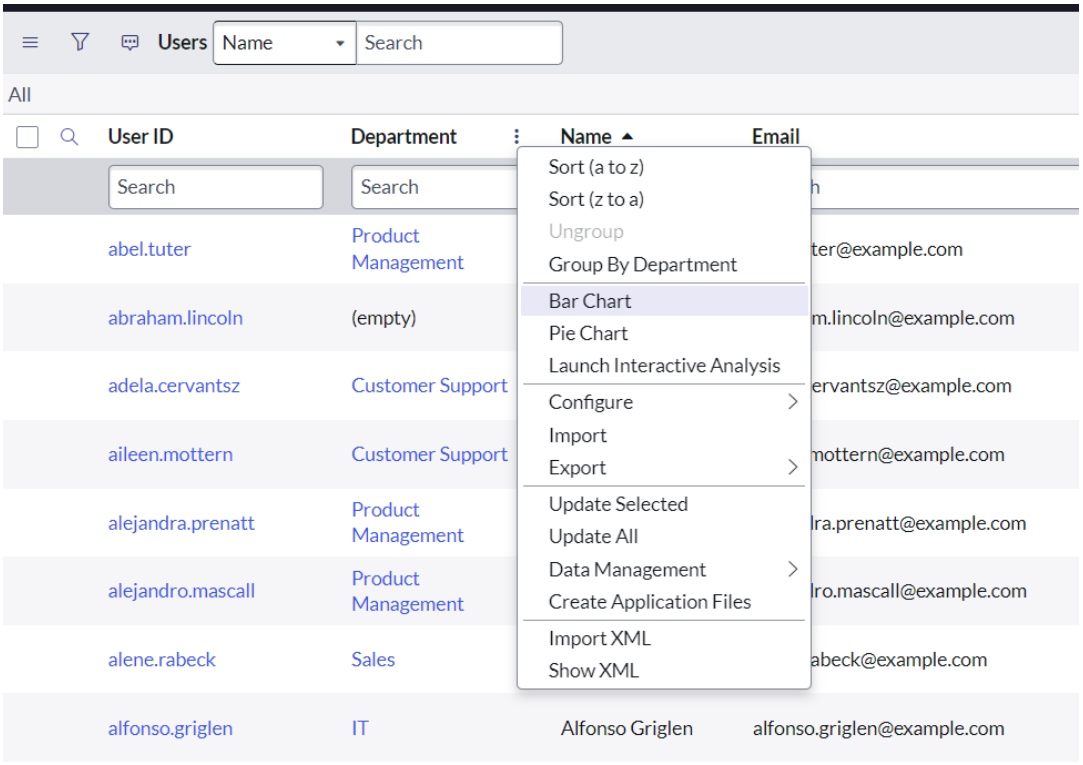
Report Users and Groups: Reports can be shared directly with users and groups through the Report Users & Groups table. This table can be accessed by entering the sys_report_users_groups.list in the Application Navigator. Important fields in this table include Sys ID, Report ID, Group ID, and User ID.

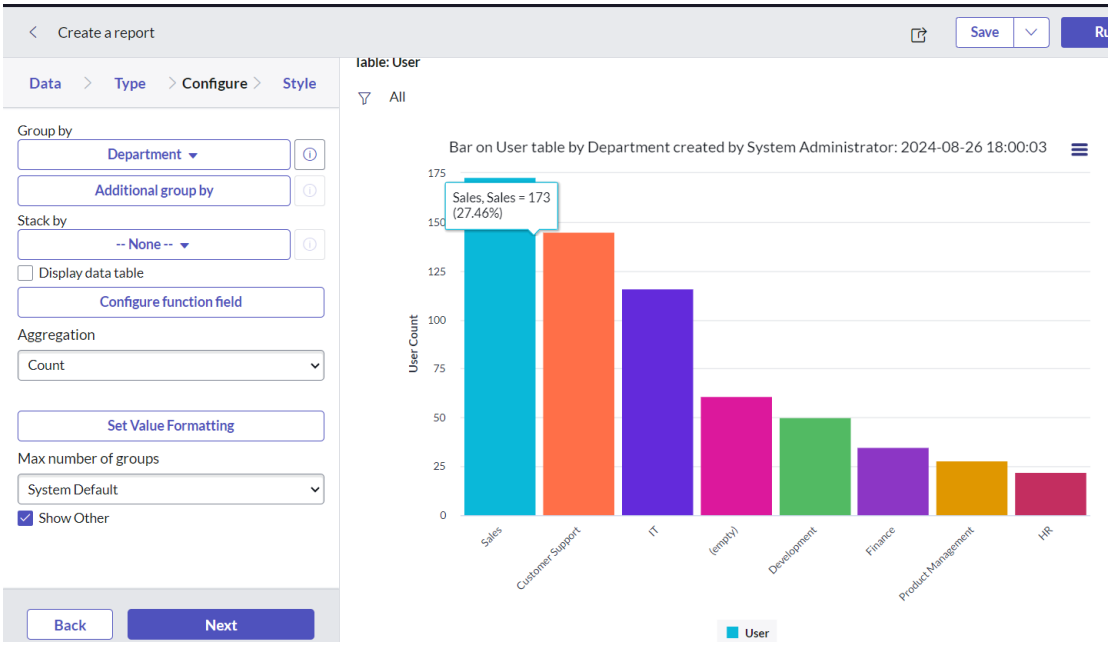
Dashboard: A dashboard is used to view a report along with other reports in a consolidated view. It can be accessed by entering ps_dashboards in the Application Navigator. Users can start a new dashboard and add reports to it directly from there.

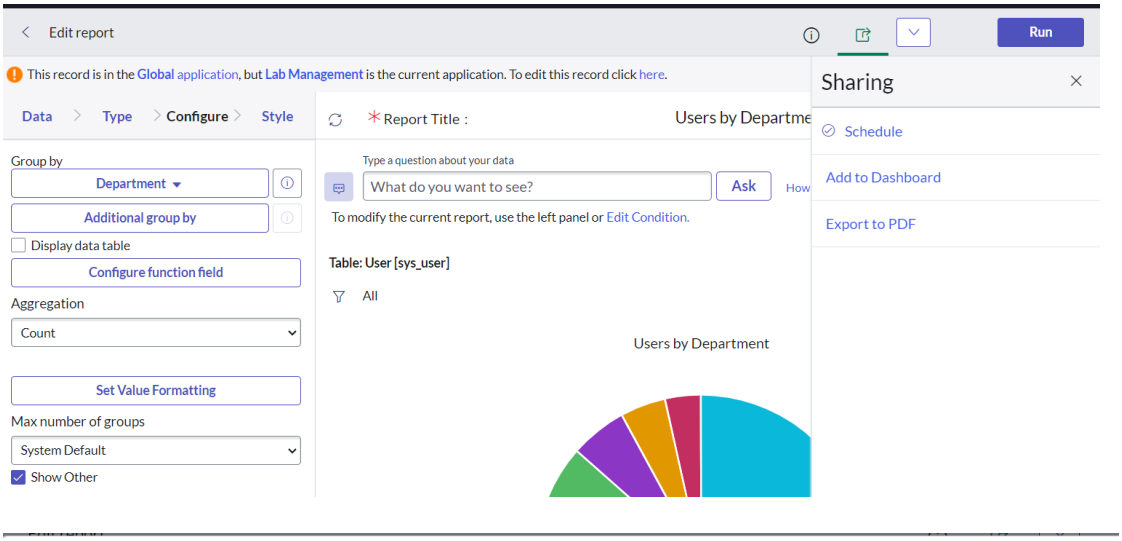


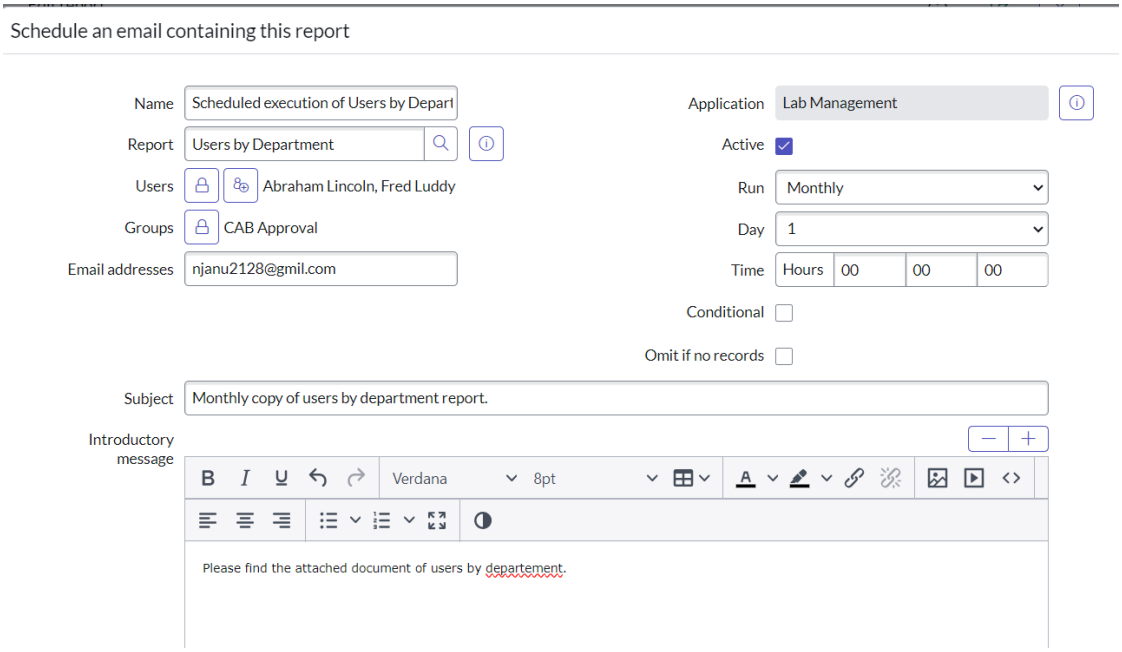

Create a report
Save
Run
Data
Type
Configure
Style
General
Title
Legend
Chart color
Use color palette
Set palette
Default UI14
Display data labels
Custom chart size
Chart size
Large
Drilldown view
Decimal precision
2
Back
Share
Table: User [sys_user]
All
Users by Department
Sales = 173 (27.46%)
(empty) = 61 (9.68%)
Customer Support = 145 (23.02%)
Development = 50 (7.94%)
IT = 116 (18.41%)
Finance = 35 (5.56%)


STUDIO
File
Source Control
Window
Search
Create Application File
Application Explorer
Lab Management | 5.1.9
Data Model
Tables
CL Sponsor
Paired Instances
Rate limit
Student Instances
Forms & UI
Forms
CL Sponsor [Default view]
Paired Instances [Default view]
Rate limit [Default view]
Student Instances [Default view]
List Layouts
CL Sponsor [Default view]
Related Lists
Styles
Create Application File
Filter...
Notifications (3)
Service Portal (7)
Content Management (9)
Service Catalog (10)
Reporting (6)
Inbound Integrations (6)
Outbound Integrations (6)
Natural Language Understanding (1)
Flow Designer (3)
Workflow (2)
Schedules (5)
MID Server (7)
Reporting
Report
Metric Definition
Scheduled Email of Report
Chart Colors
Color Definition
Range
Report
sys_report
Controls to create, display, and publish reports
Create


Users
Name
Search
All
User ID
Department
Name
Email
Search
Search
abel.tuter
Product Management
abraham.lincoln
(empty)
adela.cervantsz
Customer Support
aileen.mottern
Customer Support
alejandra.prenatt
Product Management
alejandro.mascall
Product Management
alene.rabeck
Sales
alfonso.griglen
IT
Alfonso Griglen
alfonso.griglen@example.com
Sort (a to z)
Sort (z to a)
Ungroup
Group By Department
Bar Chart
Pie Chart
Launch Interactive Analysis
Configure
Import
Export
Update Selected
Update All
Data Management
Create Application Files
Import XML
Show XML


Create a report
Save
Data
Type
Configure
Style
Group by
Department
Additional group by
Stack by
-- None --
Display data table
Configure function field
Aggregation
Count
Set Value Formatting
Max number of groups
System Default
Show Other
Back
Next
Table: User
All
Bar on User table by Department created by System Administrator: 2024-08-26 18:00:03
Sales, Sales = 173 (27.46%)
User Count
Sales
Customer Support
IT
(empty)
Development
Finance
Product Management
HR
User





What is Low Code No Code Development?:

Tools which are used in this are App Engine Studio(build tables, import spreadsheets, UI), Studio(deep digger into IDE, components), Now UI builder(create workspace & portal via drag and drop), Flow Designer (use NLP), CMDB(understand the entity of IT infrastructure).

Low code no code has its pros like improving agility via tools for creating IT services quickly, increased automation apps, lower costs, etc., and similarly, the cons are that it limits technical improvement and requires generalization which limits flexibility.

-N. Jahnavi