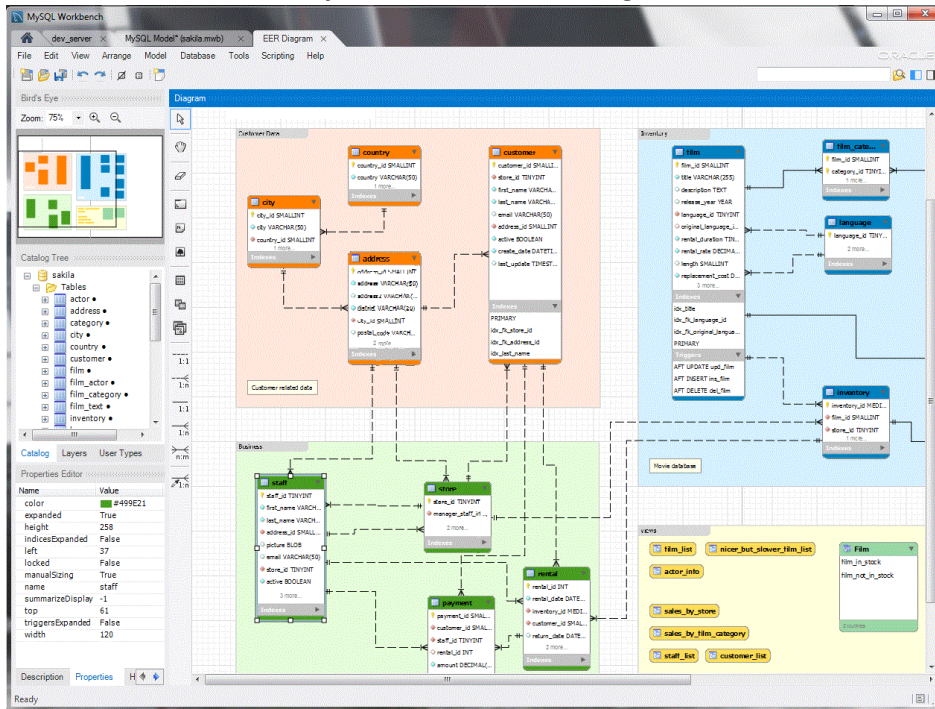
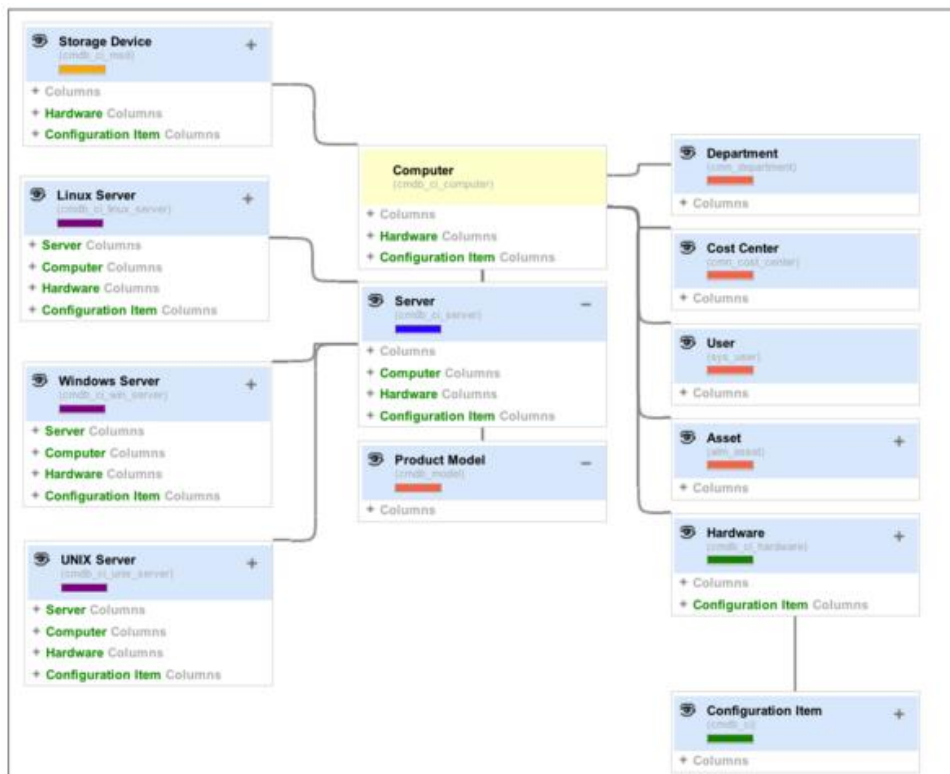


ServiceNow is built on a **MySQL** Database containing **tables**:



... which are accessible through the **ServiceNow GUI (Graphical User Interface)**:



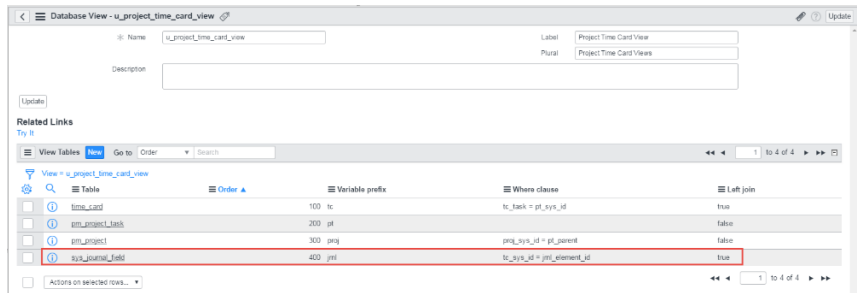
The structure of ServiceNow Data:

Database->

Tables->

Records->

Fields



Database View - u_project_time_card_view

Name: u_project_time_card_view Label: Project Time Card View
Plural: Project Time Card Views

Update

Related Links

View Tables

Table	Order	Variable prefix	Where clause	Left join
time_card	100	tc	tc_task = pt_sys_id	true
pm_project_task	200	pt		false
pm_project	300	proj	proj_sys_id = pt_parent	false
sys_journal_field	400	jfld	tc_sys_id = jfld_element_id	true

Actions on selected rows...

Table New record

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: Custom Counter Base Application: Global
Name: u_custom_counter_base Create module: ☐
Extends table:

Columns Controls Application Access

Table Columns Search for text Search

Dictionary Entries

Column label	Active	Type	Reference	Max length	Default value	Display
Number	true	String		40		false

Insert a new row...

Submit Cancel

Incident New record

Number: INC0010007 Contact type: -- None --
Caller: State: New

Users | ServiceNow - Google Chrome

Secure | https://dev22062.service-now.com/sys_user_list.do?sysparm_target=incident.caller_id&sysparm_target_value=8sy...

Users New Go to Name Search

All

Name	First name	Last name	Email
Abel Tuter	Abel	Tuter	abel.tuter@example.com
Abraham Lincoln	Abraham	Lincoln	abraham.lincoln@example.com
Adela Cervantsz	Adela	Cervantsz	adela.cervantsz@example.com

Data in ServiceNow is entered into individual **Fields**, which are displayed on a **Form**:




















The screenshot displays the 'Template' form in ServiceNow. At the top, there is a header bar with a back arrow, a menu icon, and the title 'Template'. Below this, the form contains several fields:

- Name:** A text input field.
- Table:** A dropdown menu currently showing 'Incident [incident]'.
- Active:** A checkbox that is checked.
- Template description:** A text input field.
- Template:** A dropdown menu currently showing '-- choose field --'. This dropdown is open, revealing a search bar and a list of available fields: 'Category', 'Impact', 'Priority', 'Short description', 'Subcategory', 'Urgency', and 'Remove Related Fields'.

At the bottom left of the form, there are three buttons: 'Clear', 'Submit', and 'Schedule'.

... and the term used to describe the data on a form is a **record**.

A ServiceNow table is made up of **records** and **fields**:

Tables ▾	New	Go to	Name ▾		Q <<<	1	to 14
▸ All > Extends table = Task							
	 Label	 Name	 Extends table	 Extensible			
<input type="checkbox"/>	 Change Phase	change_phase	Task	false			
<input type="checkbox"/>	 Change request	change_request	Task	true			
<input type="checkbox"/>	 Change Task	change_task	Task	false			
<input type="checkbox"/>	 Incident	incident	Task	false			
<input type="checkbox"/>	 KB Submission	kb_submission	Task	false			
<input type="checkbox"/>	 Problem	problem	Task	false			
<input type="checkbox"/>	 Problem Task	problem_task	Task	false			
<input type="checkbox"/>	 Release Phase	release_phase	Task	false			
<input type="checkbox"/>	 Feature Task	release_task	Task	false			
<input type="checkbox"/>	 Request	sc_request	Task	false			
<input type="checkbox"/>	 Requested Item	sc_req_item	Task	false			
<input type="checkbox"/>	 Catalog Task	sc_task	Task	false			
<input type="checkbox"/>	 Group approval	sysapproval_group	Task	false			
<input type="checkbox"/>	 Ticket	ticket	Task	false			

Each record is identified by a unique 32-character GUID (Globally Unique ID) called a Sys ID (**sys_id**). There are various ways to get the sys_id of a record:

Get the sys_id from the header bar

Users can locate the sys_id of a record using the header bar.

1. Navigate to the record.
2. Right click the header bar and select **Copy URL**.

The sys_id is inside of the URL, after the parameter sys_id=. For example, the following is a URL for an Incident:

```
https://<instance name>.service-now.com/nav_to.do?uri=incident.do?sys_id=9d385017c611228701d22104cc95c371
```

Therefore the sys_id is 9d385017c611228701d22104cc95c371.

Get the sys_id from a script

Users can locate the sys_id of a record using a script.

- The sys_id value of a record can be found in a business rule (or any other server-side JavaScript) by dot-walking from the GlideRecord.

```
var id = current.sys_id;
```

- The sys_id of a record can be found in client-side JavaScript using g_form.getUniqueValue() as shown in the following example.

```
function onLoad() {  
    var incSysid = g_form.getUniqueValue();  
    alert(incSysid);  
}
```

Get the sys_id from the URL

Users can locate the sys_id of a record by viewing the URL.

About this task

Since the sys_id of a record is always part of the URL for a link to that record, it is possible to retrieve the sys_id by viewing the URL.

Procedure

View the sys_id in the information bar of the browser by hovering over a link to the record.

For example, an Incident with the following URL: https://<instance name>.service-now.com/nav_to.do?uri=incident.do?sys_id=23dc968f0a0a3c1900534f399927740e, has this sys_id: 23dc968f0a0a3c1900534f399927740e.

https://demo.service-now.com/nav_to.do?uri=incident.do?sys_id=23dc968f0a0a3c1900534f399927740e

Which application is used to change the number format per table?

- a. Number Maintenance
- b. System Maintenance
- c. Table Maintenance
- d. Record Maintenance

A. Record numbers are automatically incremented, and the number format per table in the system can be changed by visiting the Number Maintenance application.

Number Maintenance: In the base system, several tables are numbered, including Incident, Problem, Change Request, and Knowledge. You can also use these numbers anywhere that script is present, for example to generate watermarks for emails. Records in tables can be numbered automatically.

Administrators can manage record numbering by navigating to **System Definition > Number Maintenance**. The current number format for a table, including the prefix (such as **INC** for incidents or **CHG** for changes), is stored in a record on the Number [sys_number] table.

Numbers New Go to Prefix Search 1 to 50 of 102						
All > Prefix != NULL						
		Prefix	Number	Number of digits	Table	Updated
<input type="checkbox"/>	i	ACCT	10,000	7	Account	2016-01-08 10:21:57
<input type="checkbox"/>	i	ADOBE	10,000	7	Adobe Software License	2005-09-25 18:21:25
<input type="checkbox"/>	i	AINST	10,000	7	Assessment Instance	2013-04-08 13:38:01
<input type="checkbox"/>	i	APP	1,000	7	Appointment Booking	2017-06-01 16:47:27
<input type="checkbox"/>	i	ASG	10,000	7	Assessment Group	2013-04-19 13:03:03

The 3 components of a **Field**:

Label, Name, and Value.

Field label: is a user-friendly term which allows people to identify the field in the user interface.

Field name: The name is unique term that the system uses to identify the field in scripts and automated business processes.

Value: The values are actual data

The **Tables & Columns** module provides a view-only list of all existing tables, with columns (fields), column (field) attributes, and indexes:

Tables & Columns

Click a button to create a new table or application, or browse all applications.

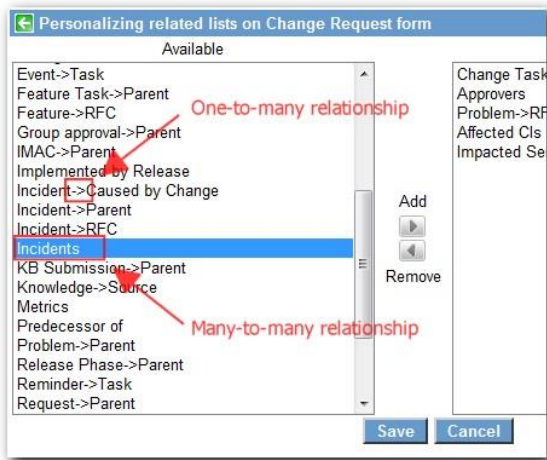
[Create Table](#) [Create Application](#) [Browse Applications](#)

Or, select a table to browse its columns and indices.

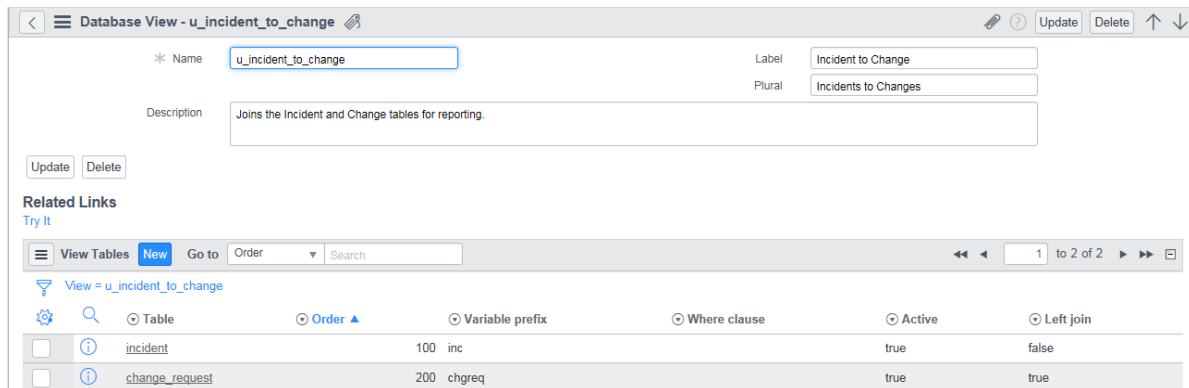
Table Names	Column Names	Column Attributes																																				
IBM Mainframe LPAR [cmdb_ci_mainframe_lpar] IBM Websphere [cmdb_ci_app_server_websphere] IFrames [content_block_iframe] IMAC [change_request_imac] Images [db_image] Impacted Services [task_cmdb_ci_service] Import Export Map [sys_impex_map] Import Log [import_log] Import Set [sys_import_set] Import Set Row [sys_import_set_row] Import Set Row Error [sys_import_set_row_error] Inactivity Monitor [sysrule_escalate_am] Inbound Email Actions [sysevent_in_email_action] Incident [incident] Incident fact table [incident_fact_table] Incident Metric [incident_metric] Incident SLA [incident_sla] Incident Time Worked [incident_time_worked] Infrastructure Service [cmdb_ci_infra_service] Infrastructure Software [cmdb_ci_inf_software] Input Parameter [sys_web_service_input] Installation Exit [sys_installation_exit] Interceptor [sys_wizard] Interested Parties [sc_request_watcher] Internal Workflow Log Entry [wf_log_internal]	<div>Fields (incident)</div> <div>Active</div> <div>Activity due</div> <div>Additional comments</div> <div>Approval</div> <div>Approval history</div> <div>Approval set</div> <div>Assigned to</div> <div>Assignment group</div> <div>Business duration</div> <div>Business resolve time</div> <div>Caller</div> <div>Category</div> <div>Caused by Change</div> <div>Change Request</div> <div>Child Incidents</div> <div>Close code</div> <div>Close notes</div> <div>Closed</div> <div>Closed by</div> <div>Comments and Work not</div>	<table><tr><th>Element</th><td>incident.assigned_to</td></tr><tr><th>Element Table</th><td>task</td></tr><tr><td>active</td><td>true</td></tr><tr><td>array</td><td>false</td></tr><tr><td>audit</td><td>false</td></tr><tr><td>choice</td><td>0</td></tr><tr><td>dependent</td><td>assignment_group</td></tr><tr><td>display</td><td>false</td></tr><tr><td>dynamic_creation</td><td>false</td></tr><tr><td>element_reference</td><td>false</td></tr><tr><td>filterable</td><td>true</td></tr><tr><td>groupable</td><td>true</td></tr><tr><td>hint</td><td>Person primarily responsible for working this task</td></tr><tr><td>internal_type</td><td>reference</td></tr><tr><td>label</td><td>Assigned to</td></tr><tr><td>language</td><td>en</td></tr><tr><td>mandatory</td><td>false</td></tr><tr><td>matchable</td><td>true</td></tr></table>	Element	incident.assigned_to	Element Table	task	active	true	array	false	audit	false	choice	0	dependent	assignment_group	display	false	dynamic_creation	false	element_reference	false	filterable	true	groupable	true	hint	Person primarily responsible for working this task	internal_type	reference	label	Assigned to	language	en	mandatory	false	matchable	true
Element	incident.assigned_to																																					
Element Table	task																																					
active	true																																					
array	false																																					
audit	false																																					
choice	0																																					
dependent	assignment_group																																					
display	false																																					
dynamic_creation	false																																					
element_reference	false																																					
filterable	true																																					
groupable	true																																					
hint	Person primarily responsible for working this task																																					
internal_type	reference																																					
label	Assigned to																																					
language	en																																					
mandatory	false																																					
matchable	true																																					
<div>Edit Table</div> <div>Schema map</div> <div>Delete all records</div>																																						

System Definition > Dictionary
is where you can view a
complete listing of records for
all tables and table fields in the
database.

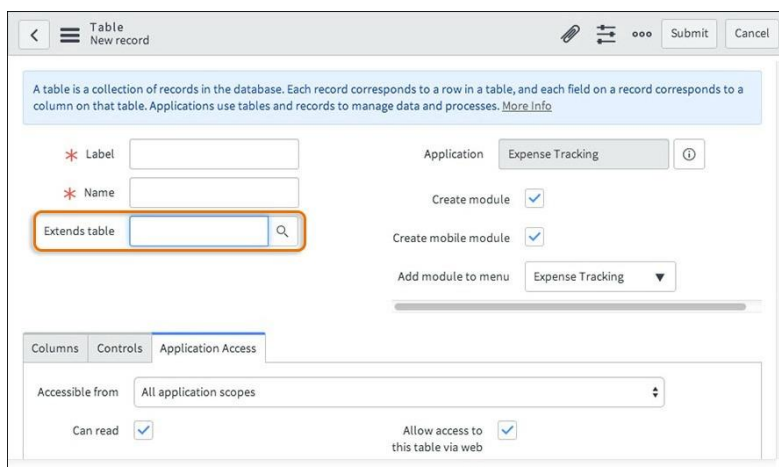
Relationships between Tables: The **One-to-many** and **Many-to-many** relationships:



The **Database View** between Incident Table and Change Request Table:



The Extension of a Table:



Within a table, a field can hold a reference to a record on another table. What are the three "one-to-many" relationship fields?


Reference Fields: Allows a user to select a record on a table defined by the reference field. Ex: Caller field on the incident table allows the user to select any record on User table.

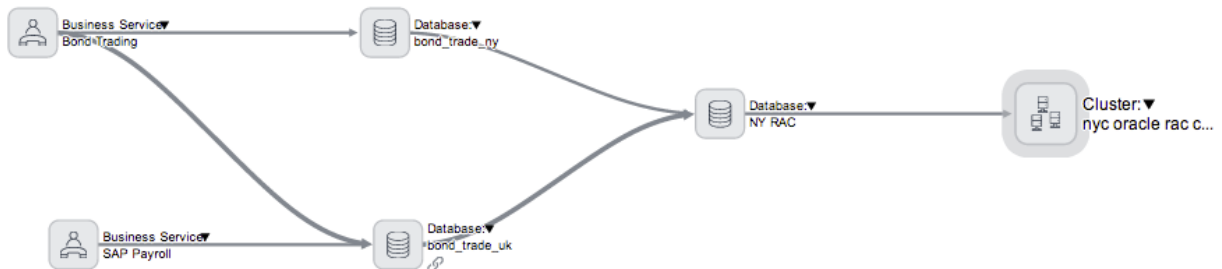
Glide List: Allows a user to select multiple records on a table defined by the glide list. Ex: The Watchlist field on the incident table allows the user to select any record or records on the User table.

Document ID Fields: Allows a user to select a record in the instance. Ex: Document field on the translated text table.

The **Dependency Views** Map display the CIs that support businesses, as well as the relationships between the CIs.

In a Dependency Views map, there is an indicator if a CI has any active, pending issues. You can investigate the tasks that are connected to a CI to get more details. When you return to the map from another form, the system restores the last map viewed, using the default filter and layout settings.

When you click the icon () on a CI record or on a task record that identifies a CI, the map opens. Many of the relationships in map are created through the discovery process. You can also create, define, and delete CI relationships in the map. You can display the map from different perspectives and open specific records that relate to configuration items. The system refreshes the map automatically to reflect changes to the CMDB.



What are the four questions to ask when considering implementing a CMDB?

1. How is data entered or imported then managed?
2. Where is data stored?
3. What data is necessary?
4. When should imports or refreshes of CI data happen

What are some methods for populating the CMDB?

- (1) Import Sets
- (2) Integrate with External CMDB
- (3) Manual Input

What is the purpose of an import set?

An Import set is a tool used to import data from various data sources, and map that data into ServiceNow tables.

What is the purpose of a transform map?

Provides a guide for moving data from Import Set tables to "Target" Tables; fields mapping provides direct field-to-field data moves.

What are some best practices for Importing data?

- Understand what data you are bringing in and where it should be placed.
- Plan time before an import to verify your data.
- Remove obsolete data before your data import.
 - Inaccurate data takes time to fix after a data import.

What is a coalesce field?

In an import, coalescing on a field (or set of fields) means the field will be used as a unique key. If a match is found using the coalesce field(s), the existing record will be updated with the information being imported.

If a match is not found, then a new record will be inserted into the database.

What are the three modules typically used by the system admin for security purposes?

- System properties > Security
 - System Security > ACL
- System Security > High Security Settings

ServiceNow provides several levels of security before an end user can perform CRUD operations on a table. What are those three levels?

- User Authentication/ Login: Users, Groups, Roles
- Application and Modules Access: Controlled by roles configured at the application and module level.
- Database Access: Access to tables and their records and fields are controlled via globally defined system properties as well as table and field level access controls.

What are the 3 types of Access Control rules to identify the object being secured?

- Table.None: No specific field selected - this rule applies to the whole table including it's records.
- Table.field: This rules applies to only one field on a record.
- Table.*: This rule applies to every field on a record without a table.field rule.