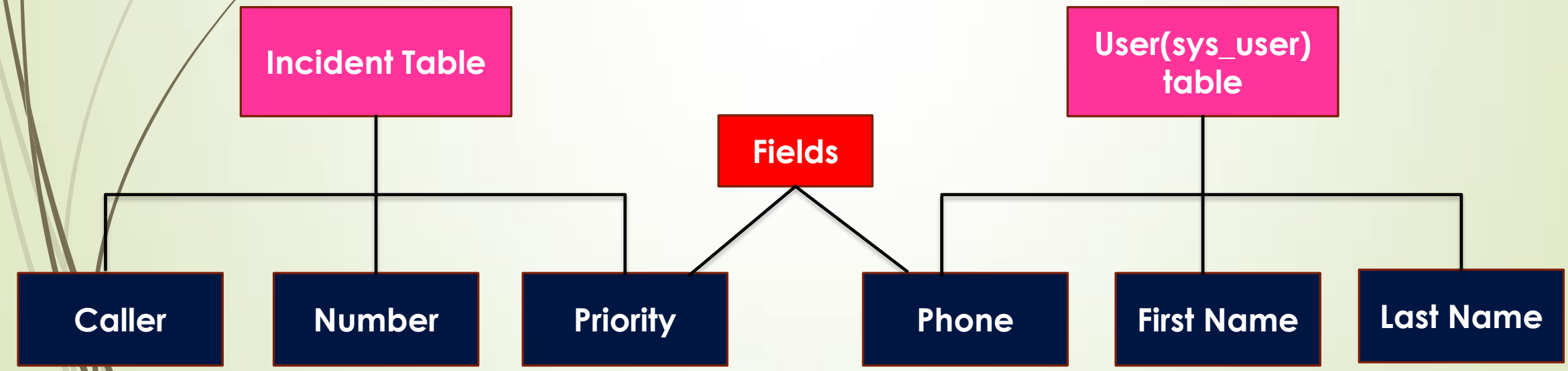
Tables & Fields & Columns

What is a table

- A table is a collection of records in the database
- Each record corresponds to a row in the table
- Each field on the record corresponds to a column on that table
- Applications use tables and records to manage data and processes, such as Incident, Problem, and CMDB.
- Tables can extend other tables, creating parent tables and child tables.

Database Table Overview

- Over 2,000 tables in base instance
- Each table has many fields
- Extend other tables
- Naming convention
- Create/modify tables
- Each application has 1 or many tables



Database, Tables, & Fields

- A database contains many tables
- A table contains many fields
- Records are stored in tables

Table

Table

Table

Field

Field

Field

Fields

Records

Number	Opened	Short description	Caller	Active	Impact	State	Updated
INC0010052	2018-04-07 00:28:30	fdfthf	Fred Luddy	true	3 - Low	New	2018-04-07 00:28:40
INC0010049	2018-04-07 00:25:19	fsefdfs	System Administrator	true	3 - Low	New	2018-04-07 00:25:49

Types of tables

Base table:

Base tables are the tables already available in Service Now and which do not extend any table

Custom table:

A table is custom if it was created by an administrator and is not part of a system upgrade or plugin activation. Custom table names always begins with u_

Major Tables in Service Now

- Task
- incident
- problem
- change_request
- sys_user
- sys_user_group
- sys_user_role
- cmn_location
- core_company
- kb_knowledge
- kb_category
- kb_knowledge_base
- sc_catalog
- sc_cat_item
- cmdb_ci
- cmdb_ci_server

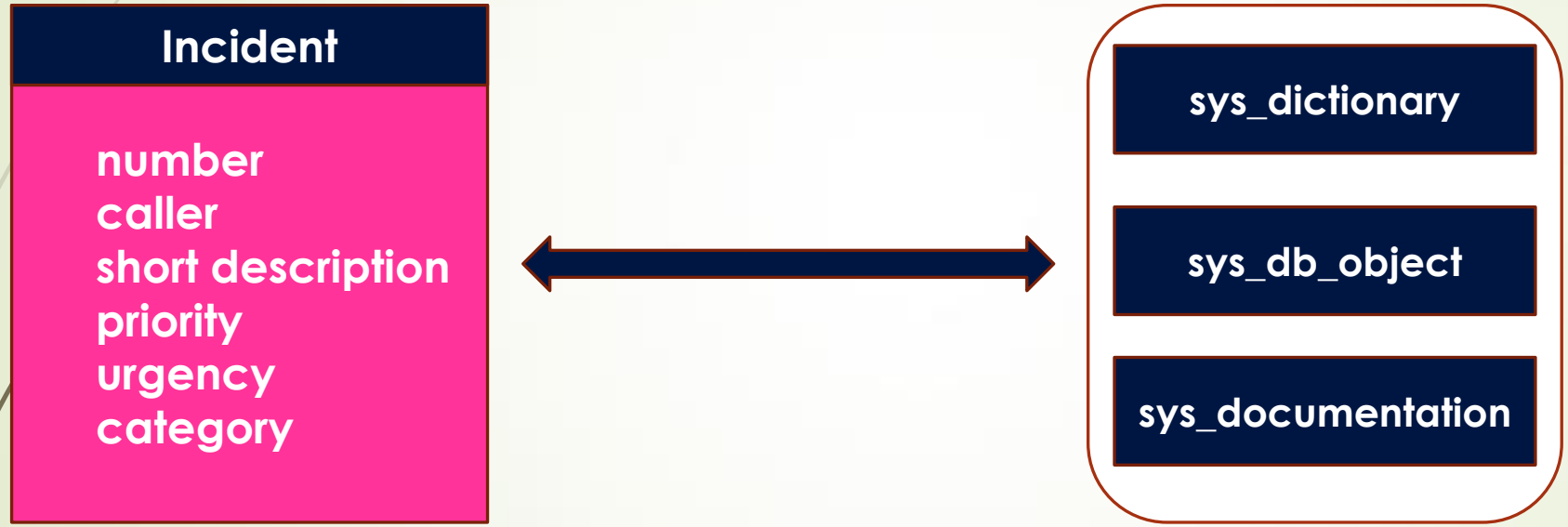
Data Dictionary Tables

- A dictionary entry manages how Service Now stores data in tables and fields (columns).
- For new dictionary entries, select a Table and the field Type of the new column. Also enter a column label, which becomes the field label, and the column name.
- If necessary, set a Max length for text String type fields, make the field Mandatory to save a record, and make the field a Display Value for reference fields so it appears on records that reference this table.
- Contain metadata about tables

Example :

sys_db_object record	→	table
sys_dictionary record	→	field on table
sys_documentation record	→	labels

Data Dictionary Tables(Cont.)



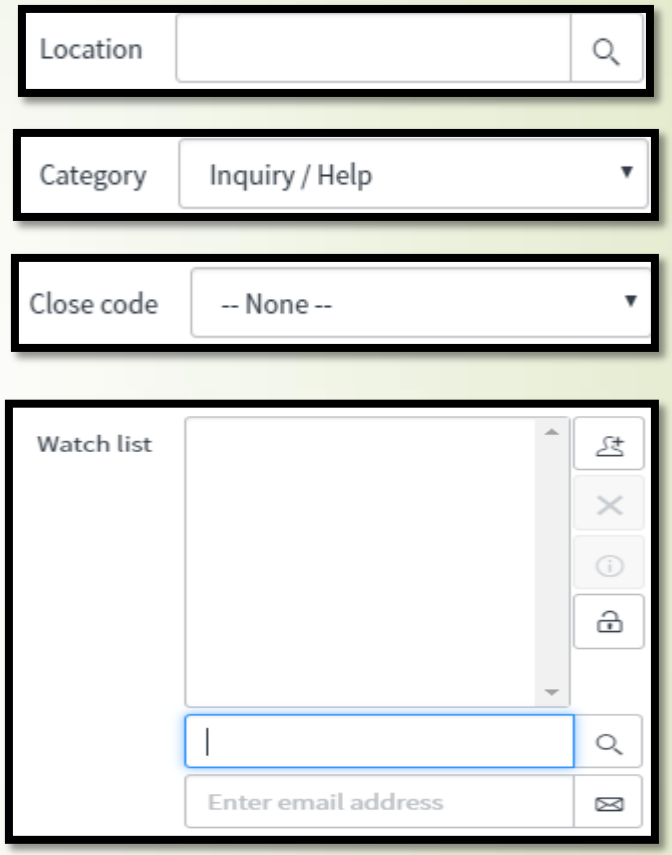
Fields

- Each table contains many fields
- Different field types
- Calculated values
- Attributes
- Default values
- Dictionary overrides

Column label	Type	Reference
Business resolve time	Integer	
Resolve time	Integer	
Caller	Reference	User
Category	String	
Caused by Change	Reference	Change Request
Child Incidents	Integer	
Close code	String	
On hold reason	Integer	

Field Data Types

- String
- Date
- Time
- Choice
- True/False
- List
- Script
- Reference



Reference Fields

- Power of RDBMS
- References are everywhere
- Store sys_id in reference field
- Must match exact record
- Reference qualifiers

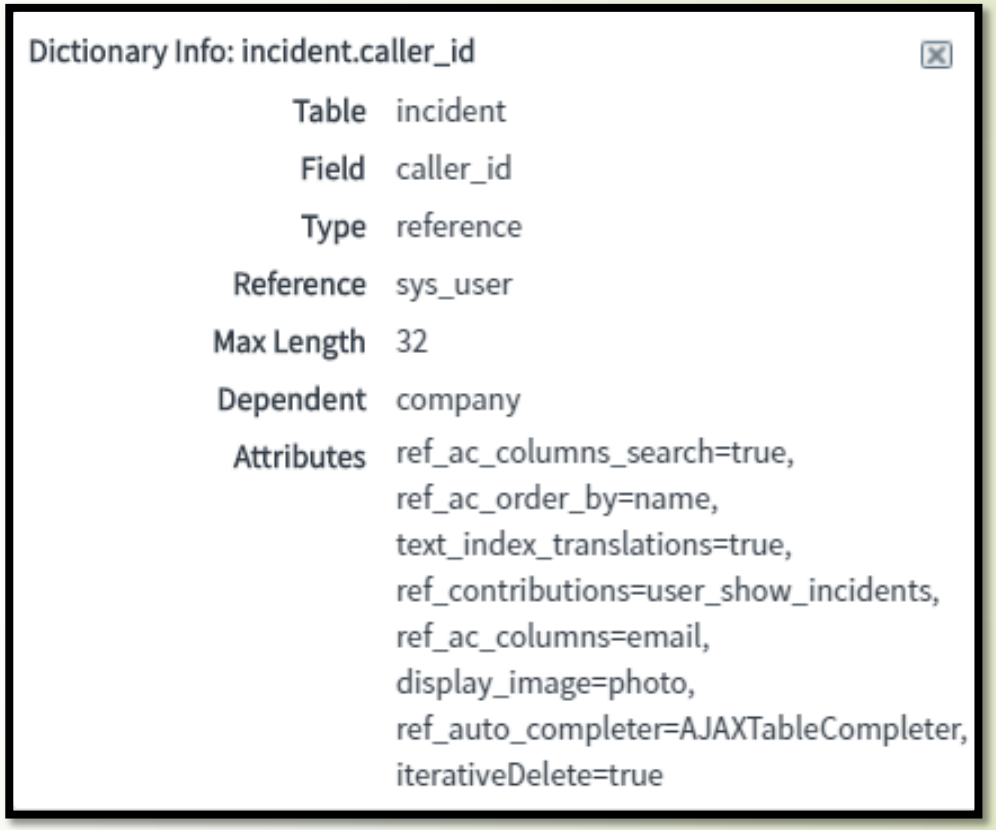


Table Relationships

Example:

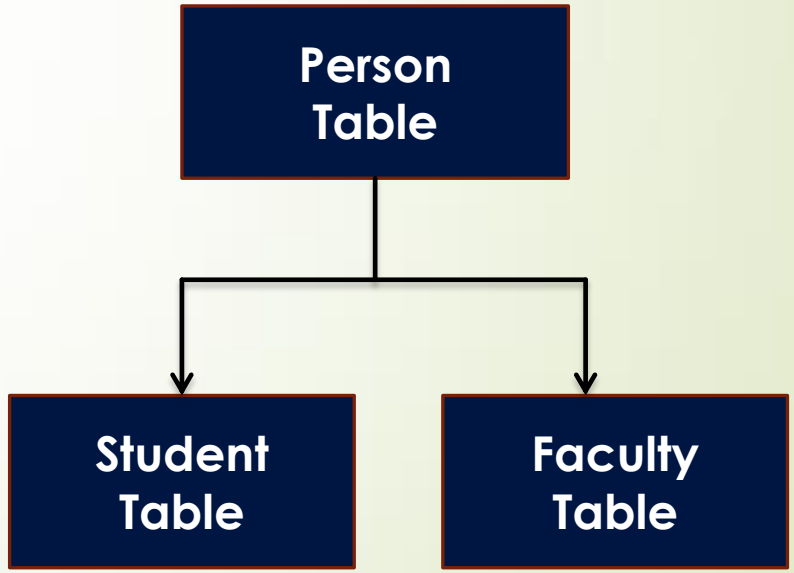
- Person table has first name and last name fields
- Student & faculty tables extend person table, thus student & faculty tables inherit first name and last name fields Must match exact record

Dictionary overrides

Very common in CMDB

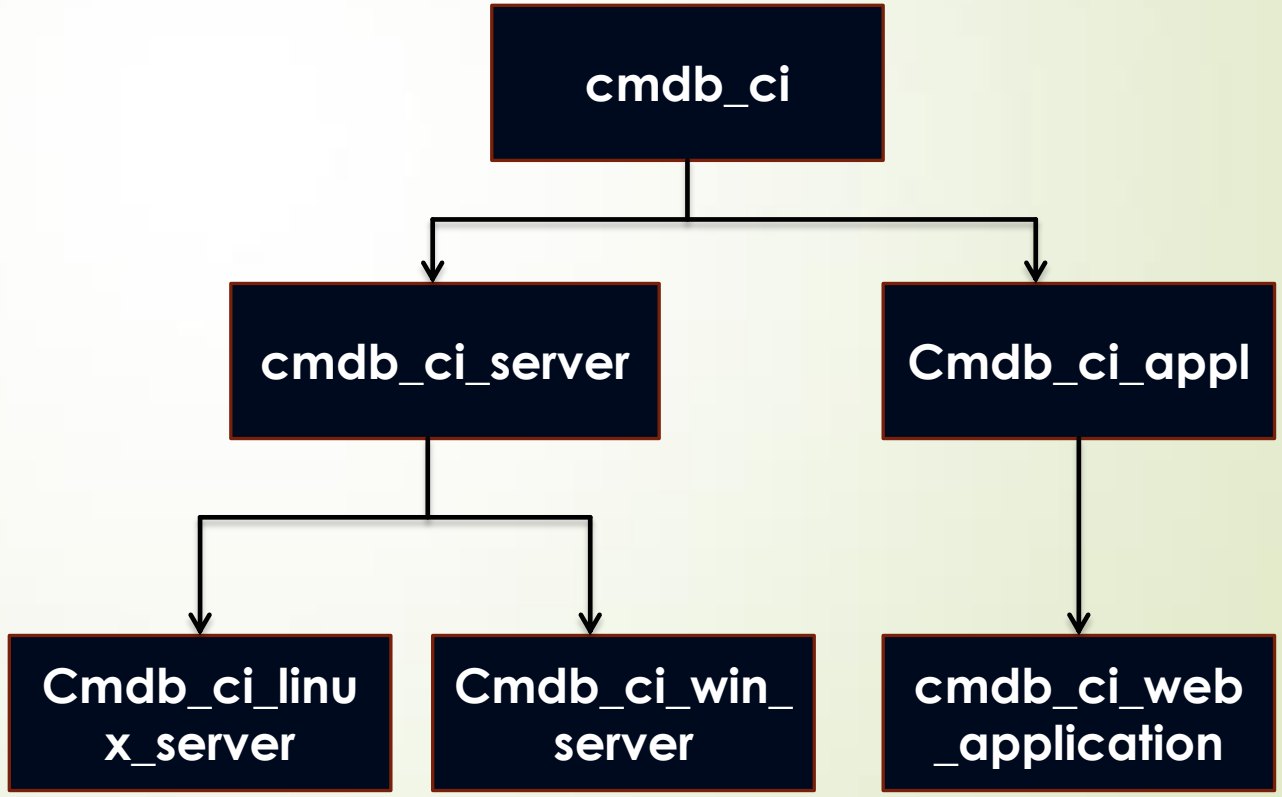
Relationships

- 1 to many
- Many to many



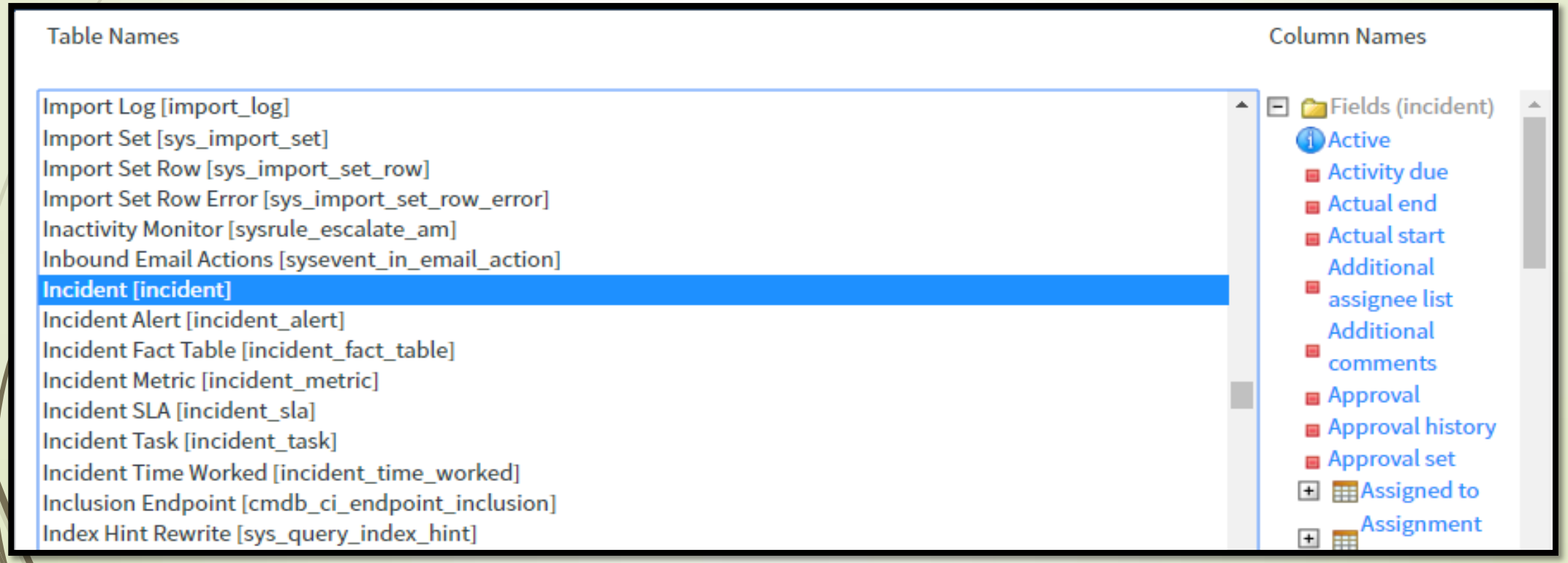
CMDB Tree Structure Example

- Hundreds of CMDB tables
- Majority of tables extend cmdb_ci table
- New CI classes = new extended table



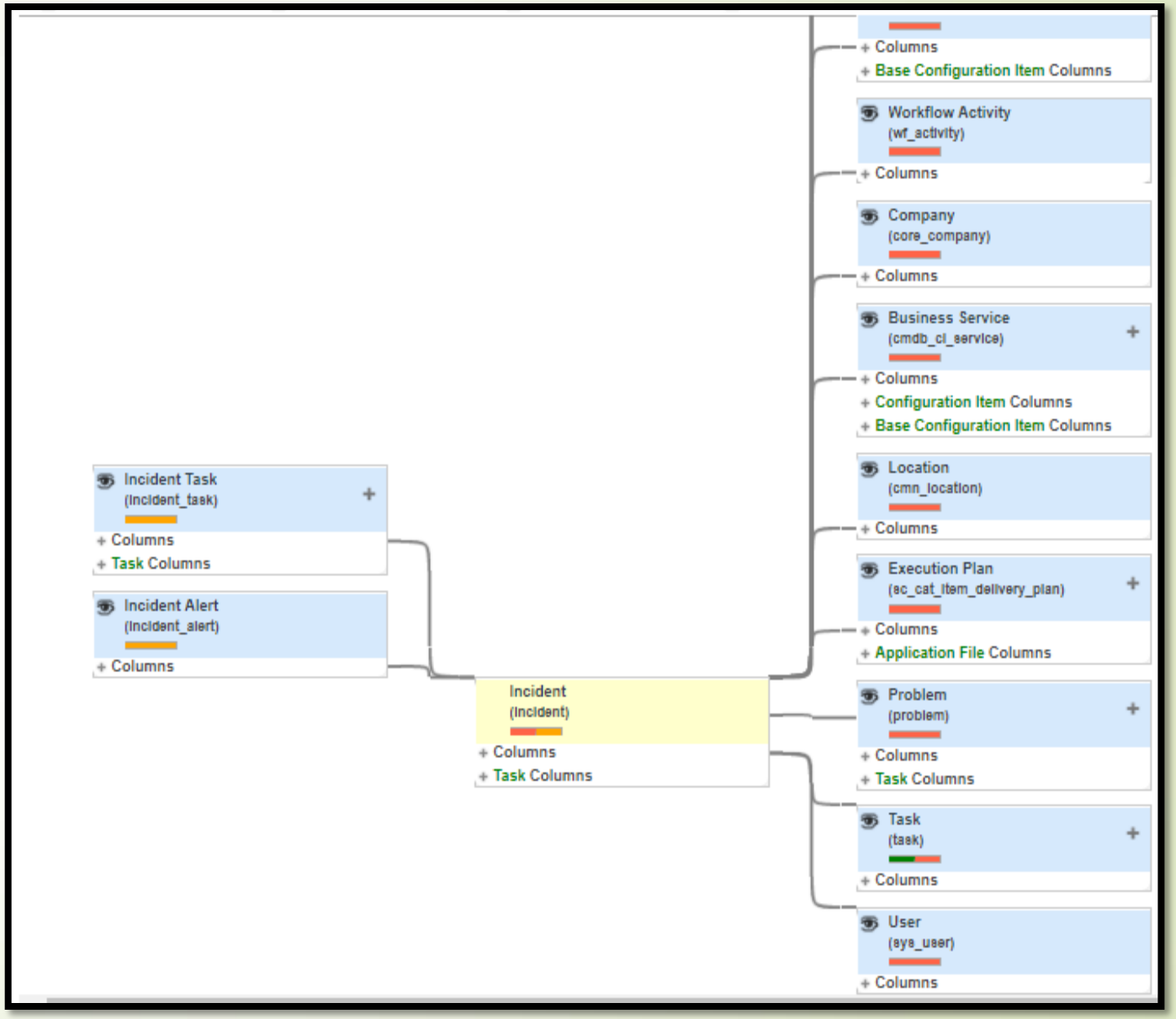
Tables & Columns Module

- One stop shop for all tables and fields
- Field attributes
- Schema map



Schema Map

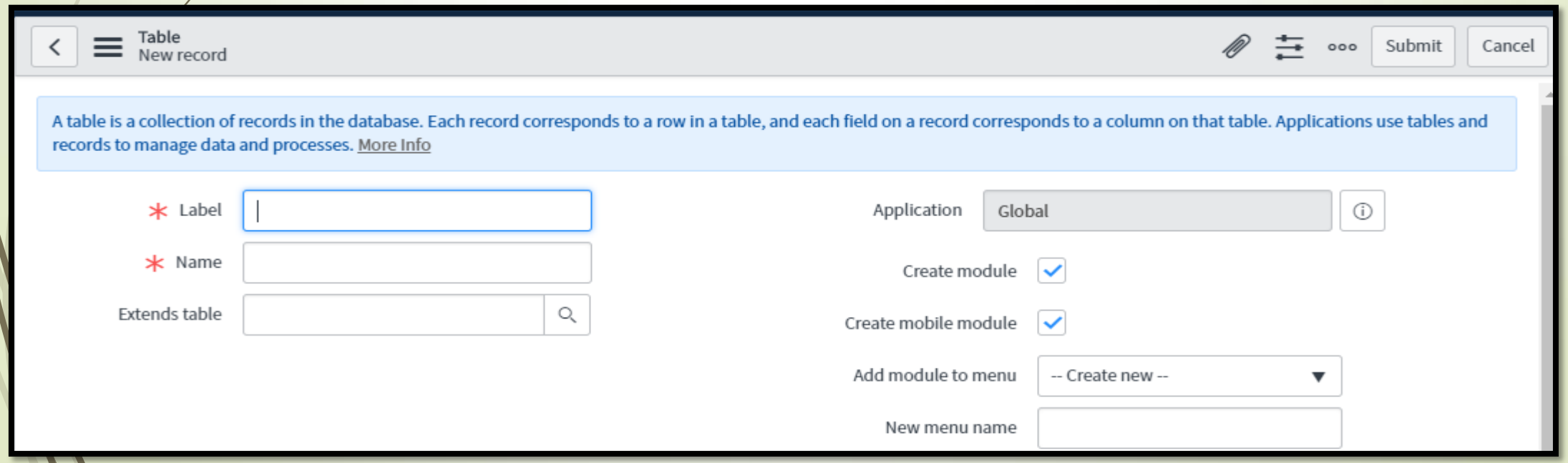
- Visual schema map
- Shows extended tables
- Focus on different tables



Create A Table

- Label
  - Human Readable
  - May have spaces
- Name
  - No spaces
  - Lowercase

- Create a new module
- Add module to application
- Create a new role



Delete A Table

- First delete all records, then delete table
- Cannot delete out-of-the-box tables