ServiceNow Session 5

Access Control & Import Data

(Note) These slides are designed based on the NowLearning ServiceNow Fundamentals' course. For more detailed information, refer to your SNF course

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ServiceNow

Data Schema

Learning Objectives

- Understand how data is stored and managed in tables, records, and fields
- Identify the relationship between base, parent, and child tables
- Analyze the differences between core and custom tables
- Use the tools to navigate table types and schema maps

ServiceNow Infrastructure

- **Relational Database** (a type of database that stores and provides access to data points that are related to one another based on the relational model)
- The ServiceNow infrastructure includes:
  - **Table** - a data structure that contains records
  - **Records** - stored on tables, contain fields
  - **Fields** - individual pieces of data within a record
- **System Definition > Dictionary** (modify table and field attributes)
- Access tables within the System Definition application:
  - **Dictionary**
  - **Tables & Columns**
  - **Tables**

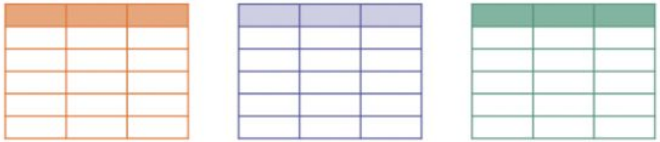


Table - a Collection of Records

Records

Each record corresponds to a row in a table

In this case, information about a single user

Are identified by a 32-character, globally unique ID, called a **sys_id**.

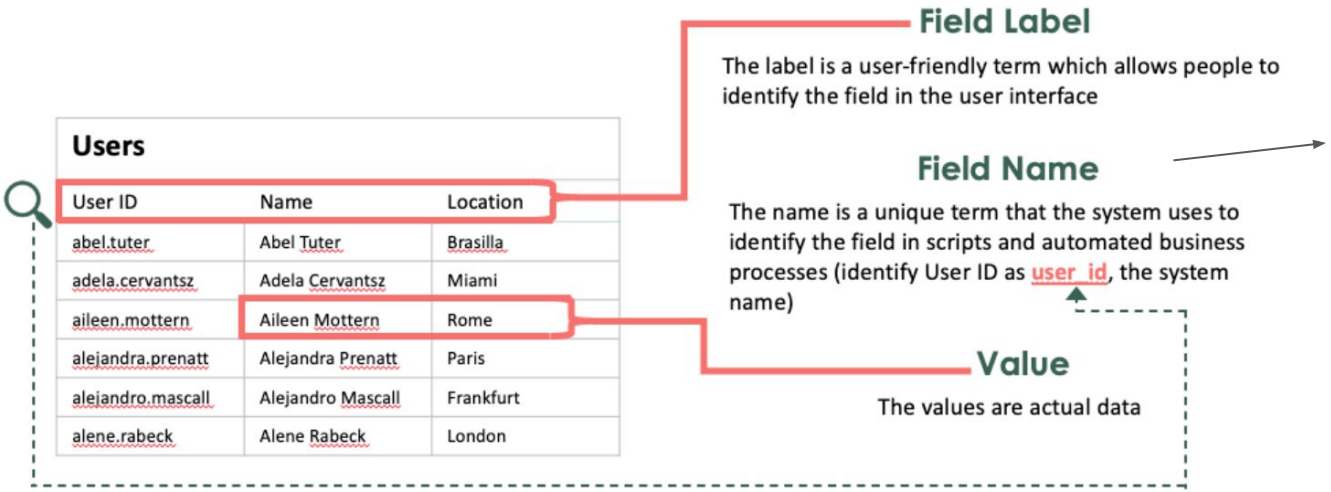
Users			
User ID	**Name**	**Email**	**Location**
abel.tuter	Abel Tuter	abel.tuter@	Brasilla
adela.cervantsz	Adela Cervantsz	adela.cervantsz@	Miami
aileen.mottern	Aileen Mottern	aileen.mottern@	Rome
alejandra.prenatt	Alejandra Prenatt	alejandra.prenatt@	Paris

Fields

A variety of different field types, such as: Choice, Date/Time, Journal, Reference, etc

Reference: ServiceNow Fundamentals @ Now Learning

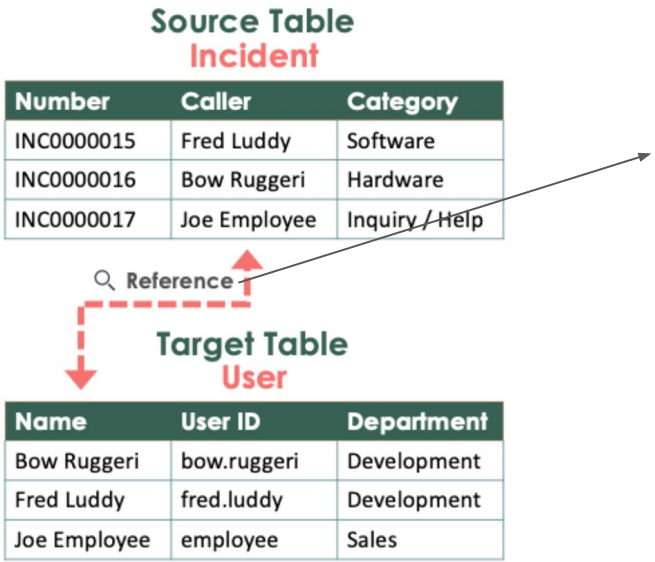
Field Attributes



Field Name does NOT always match the Field Label.
(e.g.)
Field name: sys_user.location
Field label: Location

Reference: ServiceNow Fundamentals @ Now Learning

Reference Fields

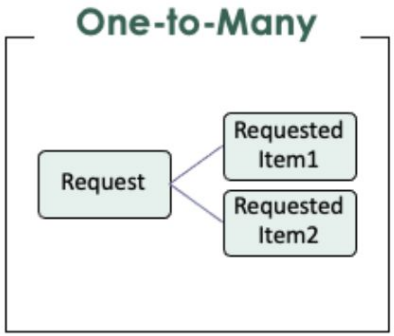


Identified with the **reference lookup** icon. When clicked, it presents a list of the referenced (target) table

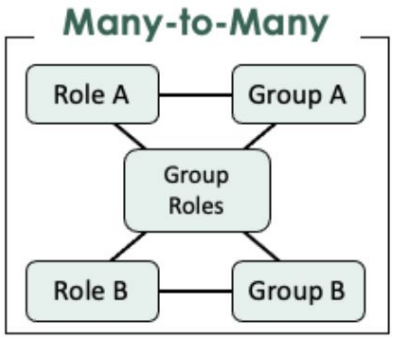
- When a reference field is defined, the platform creates a relationship between the two tables
- Admin can create new reference fields
- A **reference field** can refer only to records from one other table

Reference: ServiceNow Fundamentals @ Now Learning

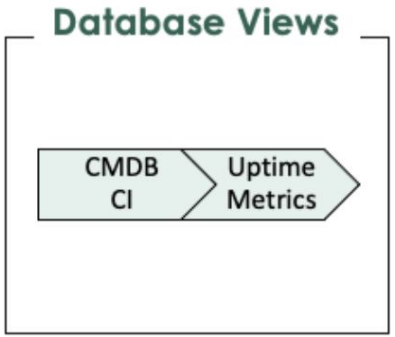
Tables are related to each other in various ways



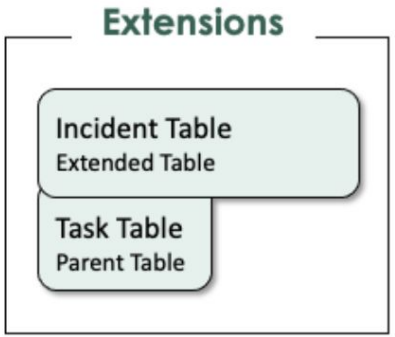
Within a table, a field can hold a reference to a record on another table (Three relationship fields: **Reference Fields, Glide List, Document ID Fields**)



Two or more tables can be related in a bi-directional relationship



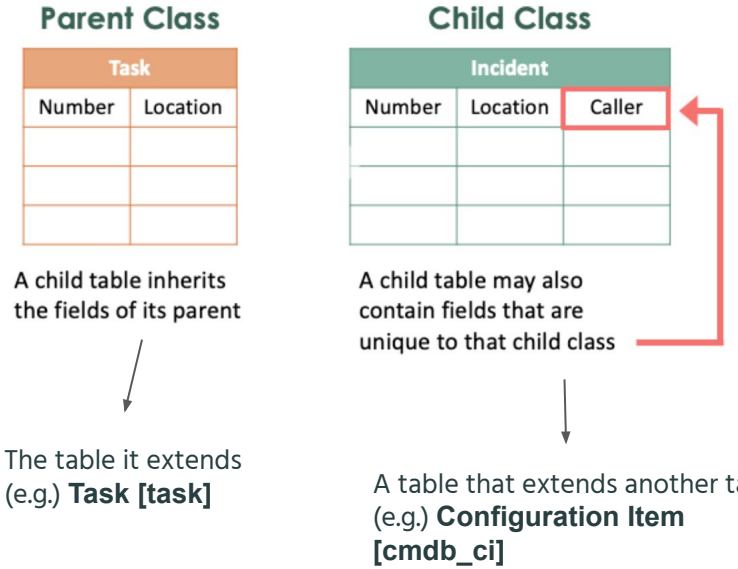
Two tables can be joined virtually for reporting on data that might be stored in more than one table. (Read-only).

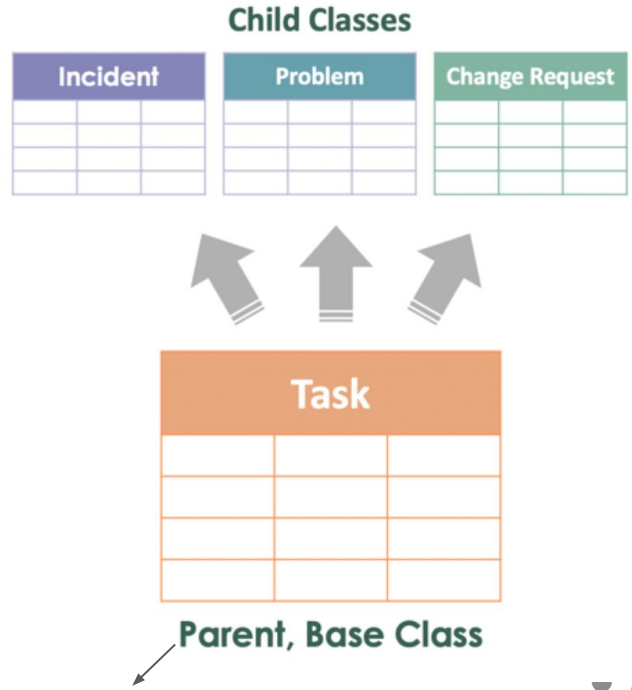


A table can extend another table

Reference: ServiceNow Fundamentals @ Now Learning

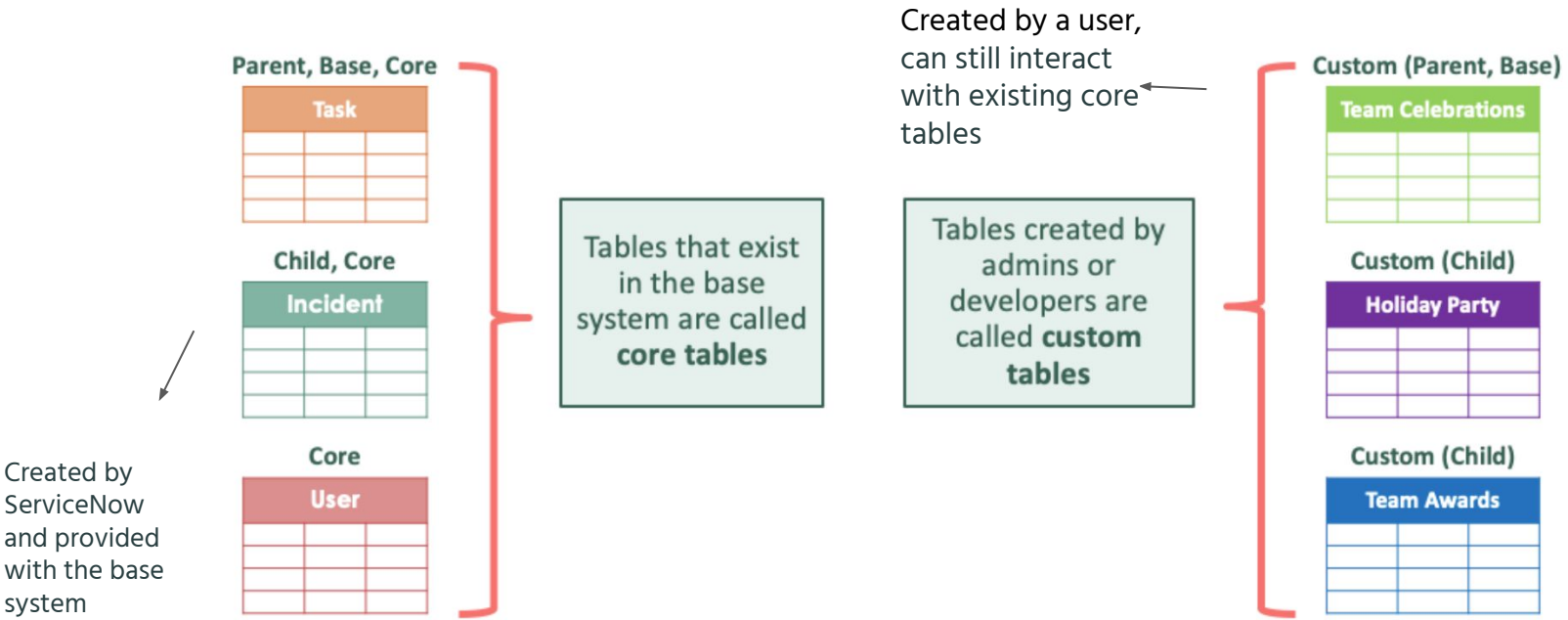
Extended Tables





Reference: ServiceNow Fundamentals @ Now Learning

Core vs Custom Tables

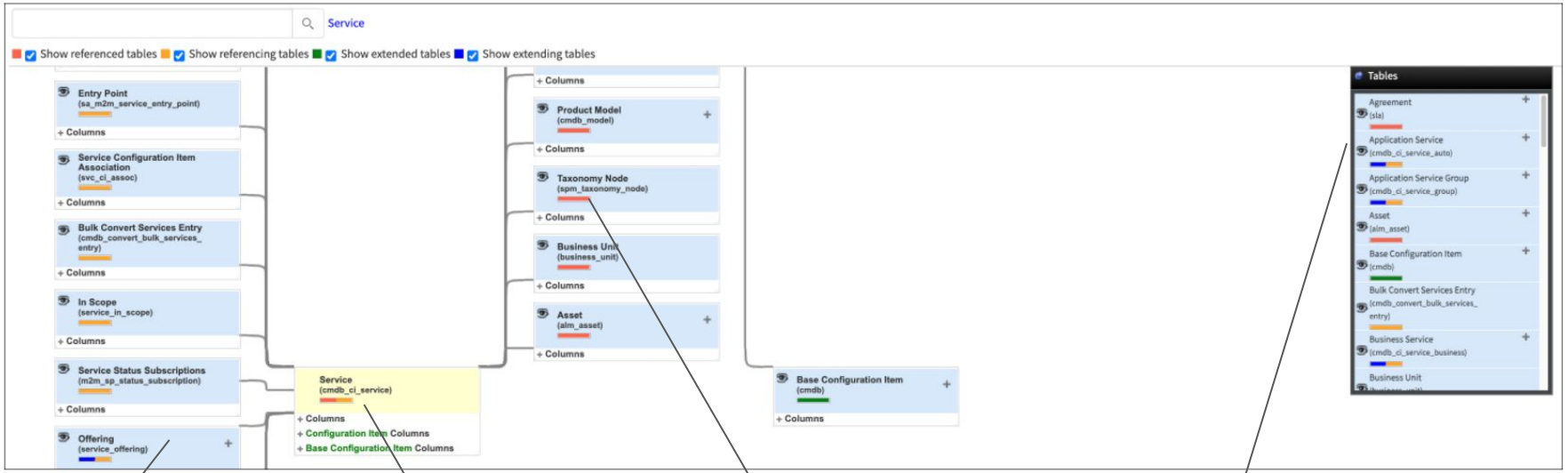


* When creating a new custom table, the table name is automatically populated based on the table label and a prefix (e.g., a table created in the global application – the name is prefixed with "**u_**")

Reference: ServiceNow Fundamentals @ Now Learning

Schema Map

- A graphical representation of other tables related to a specific table
- Required Roles: **personalize_dictionary** or **admin**



Tables that extend the Task Table

Focus of the map: Task [task]

Referenced by the Task Table

Table windows: a summary of all the tables presented and their relationships

Lab

Create an extended table

Exit Quiz

- Use [ ] to get information from tables through referenced fields
- Name the four tabs in the report designer that guide the through creating a new report: [ ] [ ] [ ] **and** [ ]
- Which modules can you use to create a new table? [ ] [ ] **&** [ ]

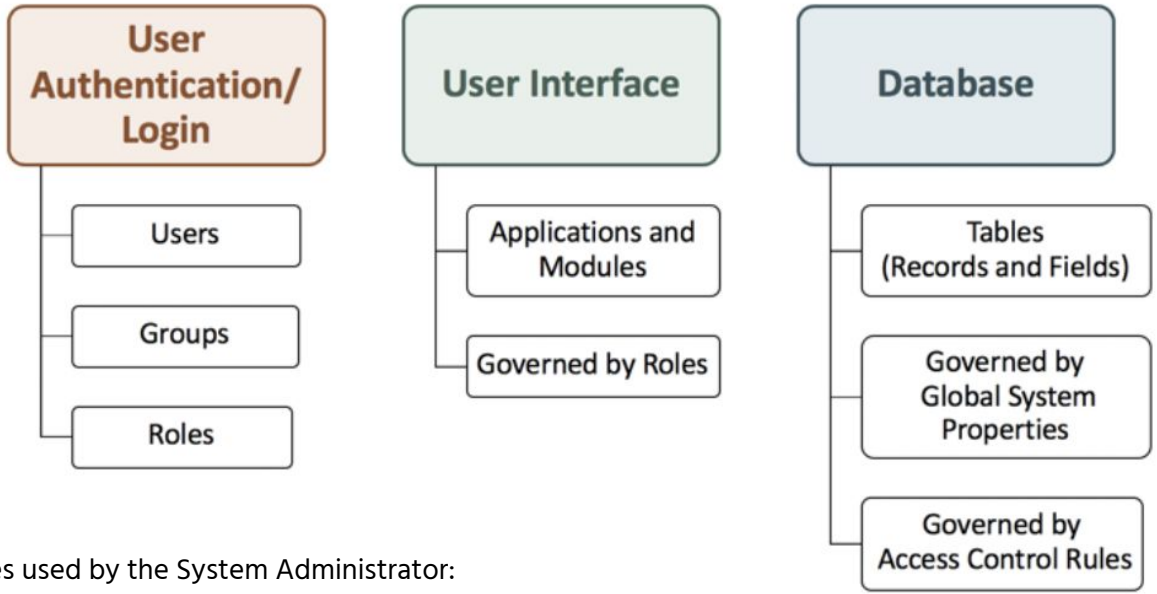
ServiceNow

Access Control

Learning Objectives

- Identify varying levels of access and rules
- Create new and modify existing access control rules
- Demonstrate an understanding of using wildcards to simplify the creation of access control rules
- Prepare data for an import
- Use import sets and transform maps to successfully import data from external data sources
- Configure data policies to achieve consistency in all data entered into ServiceNow

User Permissions Summary



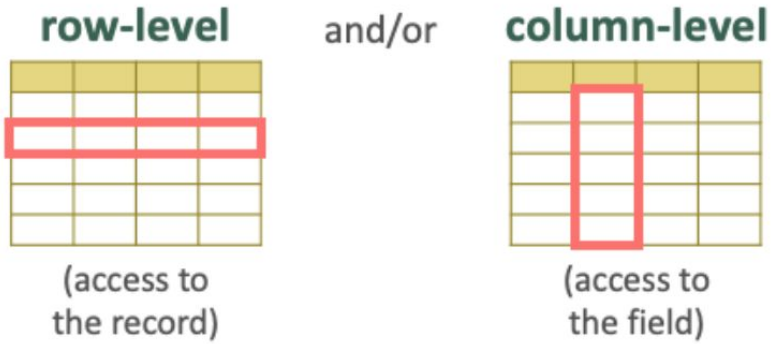
Three security modules used by the System Administrator:

- **System Properties > Security**
- **System Security > Access Control (ACL)**
- **System Security > High Security Settings**

Image Source & Reference: ServiceNow Fundamentals on Now Learning

What is an Access Control?

A security rule determined to restrict the permissions of a user from viewing and interacting with data.



Create

Read

Update (write)

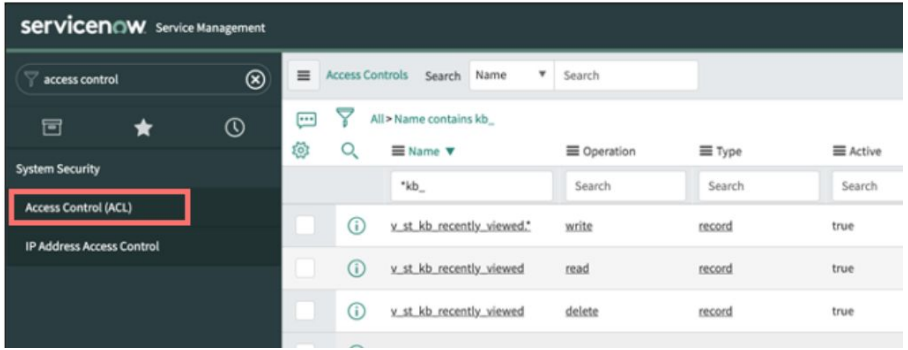
Delete

ServiceNow operation examples

- **execute**: user cannot execute scripts on a record or UI page.
- **edit_ci_relations**: user cannot define relationships between Configuration Item [cmdb_ci] tables.
- **save_as_template**: controls the field that should be saved when a template is created.
- **report_on**: user cannot create reports on the object.
- **personalize_choices**: user cannot right-click a choice list field and select Configure Choices.

Image Source & Reference: ServiceNow Fundamentals on Now Learning

Access Control List (ACL)



- List of access control rules
- Authorized users can define and update rules
- Users with the **admin** role will have to be elevated to the **security_admin** role to create or update access control roles.

Image Source & Reference: ServiceNow Fundamentals on Now Learning

Access Control Definition : Permission Requirements

Each access control rule specifies:

1. The **object** (e.g. table, field).
2. The **access permission** to object
3. The **CRUD** operation.

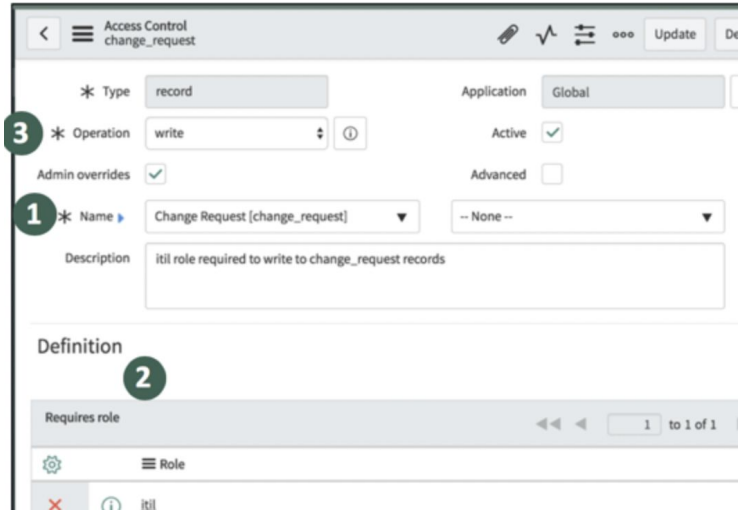
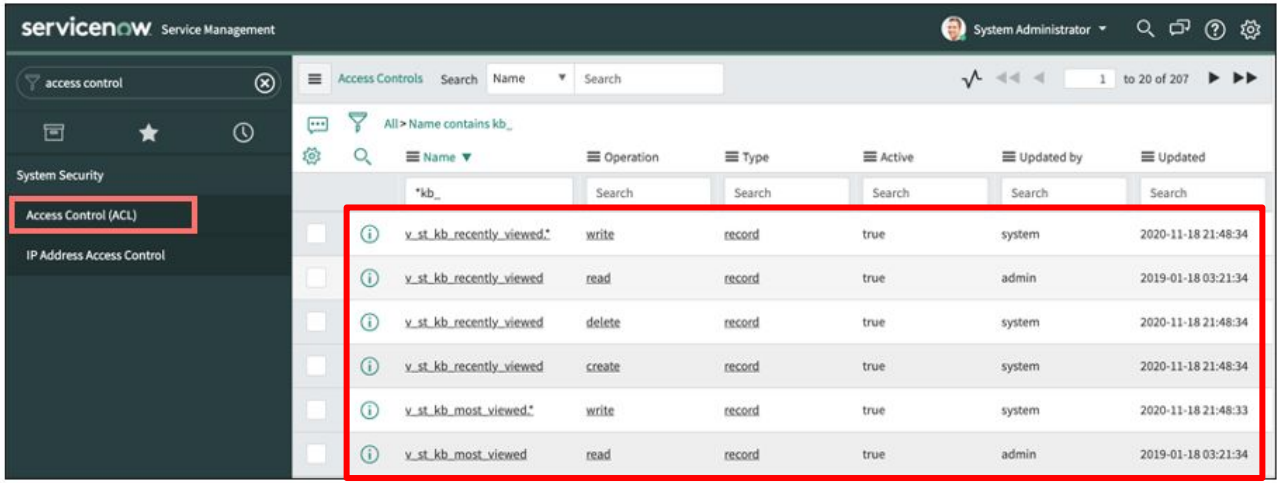


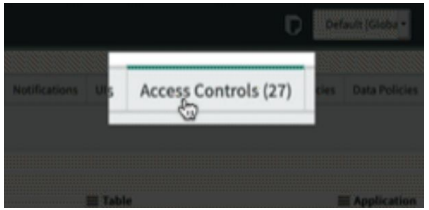
Image Source & Reference: ServiceNow Fundamentals on Now Learning

System Created Access Control



Four default access control rules:

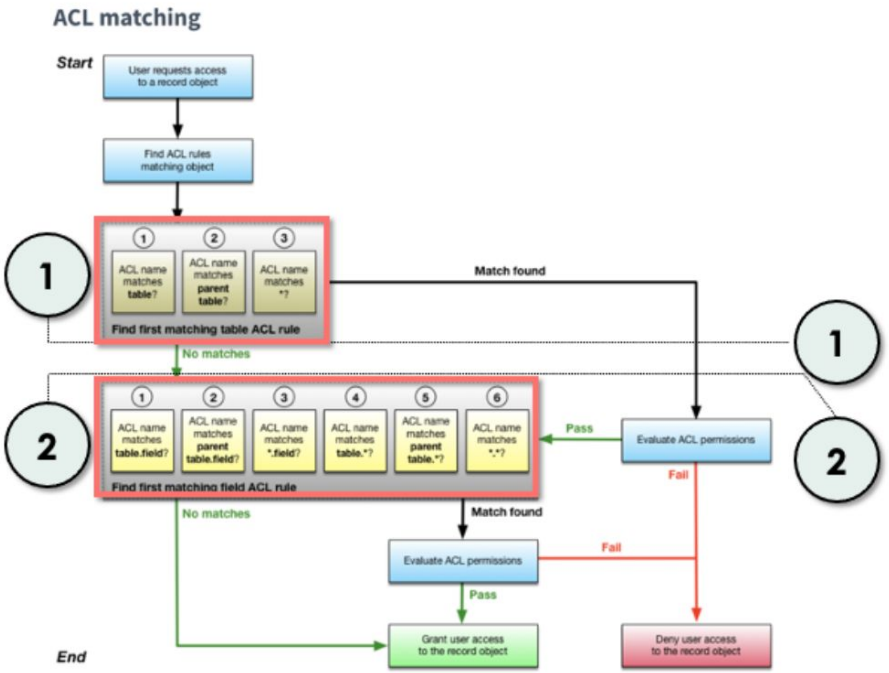
- Create
- Delete
- Read
- Write



A **role** is also created by default and associated with these access control rules.

Image Source & Reference: ServiceNow Fundamentals on Now Learning

Table access control evaluations



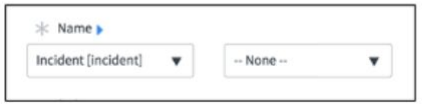
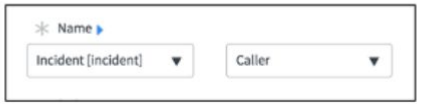
Order of record ACL rules:

1. Match the object against **table** ACL rules - *most specific to most general.*
2. Match the object against **field** ACL rules - *most specific to most general.*

A user must pass both table and field ACL rules to access a record object.

Image Source & Reference: ServiceNow Fundamentals on Now Learning

Access Control Definition: Rule Types

table.None	table.field	table.*
		
No specific field selected - this rule applies to the whole table including all of its records	This rule applies to only one field on a record and in this case, the Caller field on an incident record	Wildcard – this rule applies to every field on a record without a table.field rule

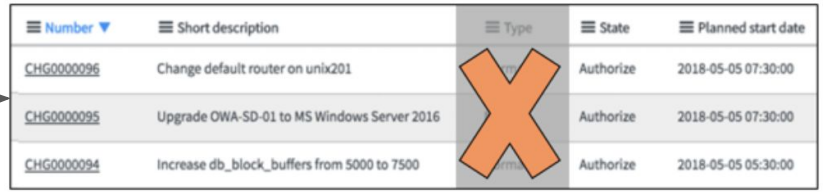
Example: Think of a house. **house.None** as the entire house, **house.field** as a specific room in the house, and **house.*** as all the other rooms in the house.

Image Source & Reference: ServiceNow Fundamentals on Now Learning

Sharing Settings: Report Visibility Controls

Access	itil_admin	itil
change_request.None	read	read
change_request.*	read	
change_request.type		read

Which role can see this?



Which role can see this?

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Lab

Access Control