

Relations:

1. Relations are used to establish connection between two or more objects.
2. Salesforce provides different types of relations
 - a. Master-Detail
 - b. Lookup
 - c. Many -Many (Junction object)
 - d. Hierarchical
 - e. External Lookup
 - f. Indirect Lookup

Importance of creating relationships among objects

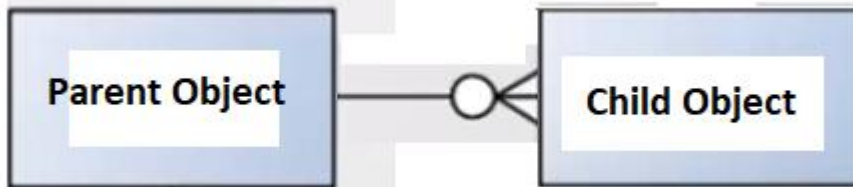
1. To avoid data redundancy
2. To refer the related info in the same data
3. To have cascade delete - Data Integrity

Steps to create relationship between two objects in salesforce

- Step 1: Create a custom field of Relationship type in child object.
- Step 2: Choose the parent to relate the relationship field.
- Step 3: Which profile has access to this field (Field Level Security)
- Step 4: Add to pagelayout.

3.Master-Detail :

1. It is one to many relationships between two objects.



2. The field type 'Master-Detail Relationship' can be created only on Custom objects.
3. Master-Detail field can only be created on custom objects.
4. Master-Detail field will be created on many side of the relationship. It means the child object.

Eg., Department is master and Employee is detail (child). The custom field of type Master-Detail is created in child object as marked below.

Master Object

Department	
Created By	Lookup(User)
Currency	Picklist
Department	Picklist
DepartmentNo	Auto Number
Dept Grade	Formula (Text)
Last Modified By	Lookup(User)

Child Object

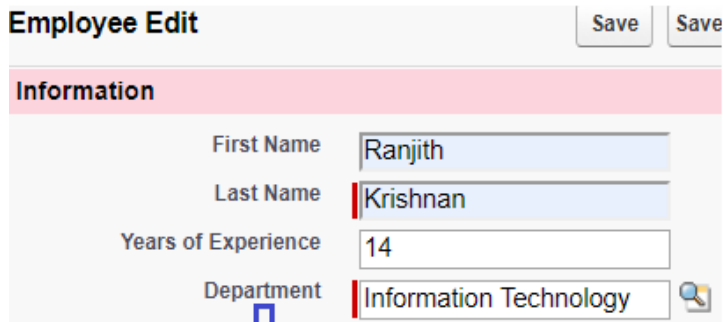
Auto	Auto Number (External ID)
Created By	Lookup(User)
Currency	Picklist
Date of Join	Date
Department	Master-Detail(Department)
Department Name	Formula (Text)

5. Master-Detail field is a required field.
6. Object on which Master-Detail Field is created is called as child object /Detail Object/ Related

Object.

7. In one to many relation of Master-Detail, the parent object is referred as master object.

8. When creating the child record, the master record will be chosen to set the relation. When setting this relation, the record id of the master record will be stored in master-detail field in the child record.



(This master-detail field will store the record id of master record. But the name will be displayed in the layout)

9. If the master record is deleted, corresponding child records are also deleted.

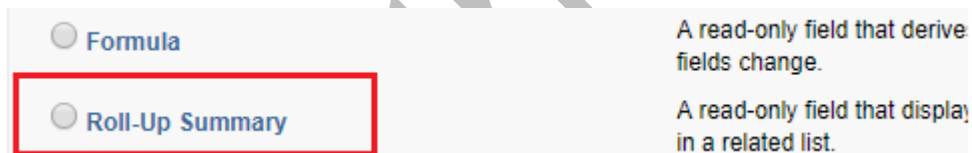
But deleted child records will not displayed in recycle bin.

10. If we undelete the master record, corresponding child records are also undeleted.

11. Object in which Master-Detail field is created, that object will not have any owner field in it.

12. Whoever is the owner of the master record will become the owner of corresponding child records.

13. In master object, there is a custom field type called 'Rollup Summary' is allowed to create. This is used to summarize the child records such as total number of child record, sum of any number field values, currency, maximum or minimum of currency or number or date or dateTime or time.



13.Sharing Setting

This will specify the minimum access level required on the Master record to create, edit, or delete related Child records:

a. Read Only:

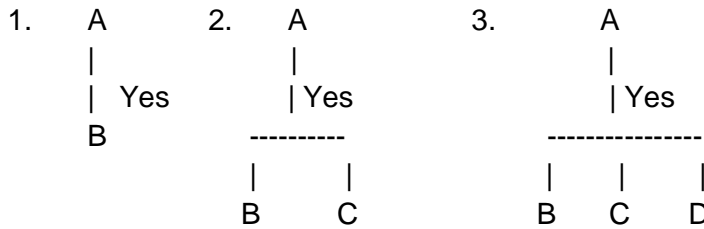
If you choose this option, Allows users who has atleast Read access to the Master record can perform create, edit, or delete operations on corresponding child records.

b. Read/Write:

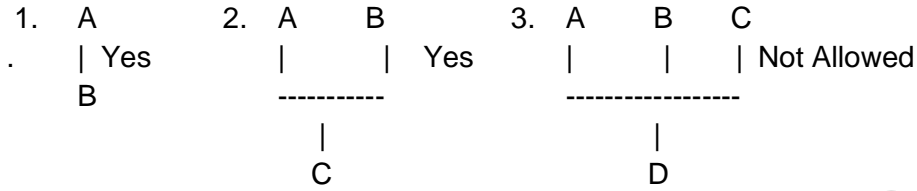
If you choose this option, Allows users who has at least Read / Write access to the Master record can perform create, edit, or delete operations on corresponding child records.

14. **Allow Reparenting:** If this option is enabled, Child can change it's master record after creation of child record.

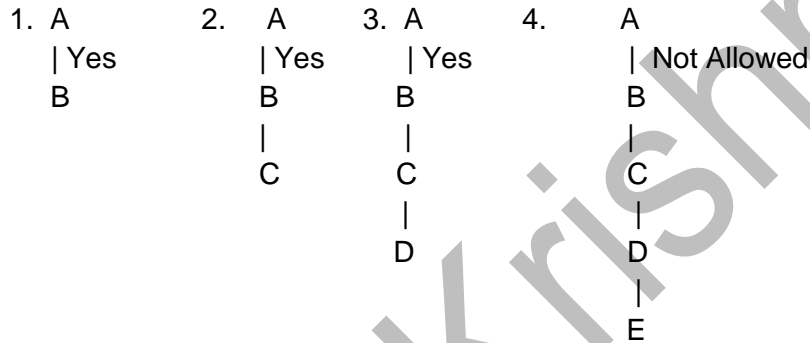
15. An object can be a Master to any number of objects.



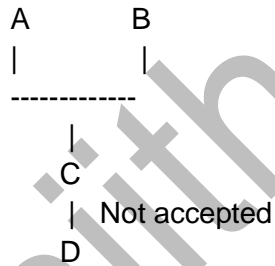
16. On an object we can create only two master-detail fields.



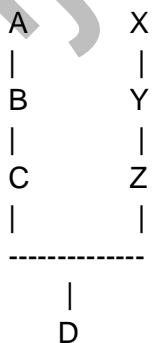
17. Child object can be parent to any other objects upto three levels



18. If an object has two parents on it, it cannot be parent to any other object.



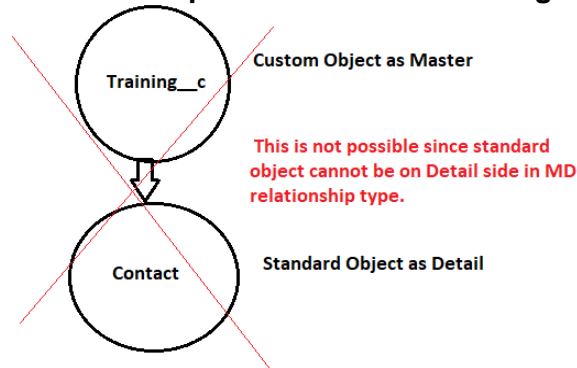
19. Maximum structure what we can form using master-Detail



20. In master object can be a standard object, such as Account or Opportunity, or a custom object.

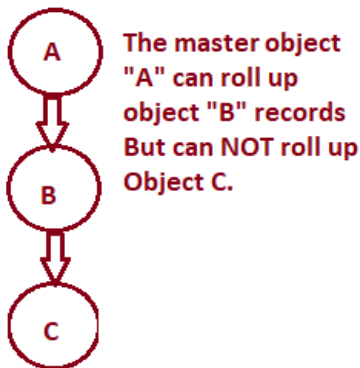
21. The standard object cannot be on detail side.

Example the below relationship cannot be created using Master-Detail Type.



22. You can't delete a custom object if it is on the master side of a master-detail relationship. If you delete a custom object that is on the detail side of a master-detail relationship, the relationship is converted to a lookup relationship.

23. Roll-up summary fields work as in two-object master-detail relationships. A master can roll up fields on detail records; however, it can't directly roll up fields on subdetail records.

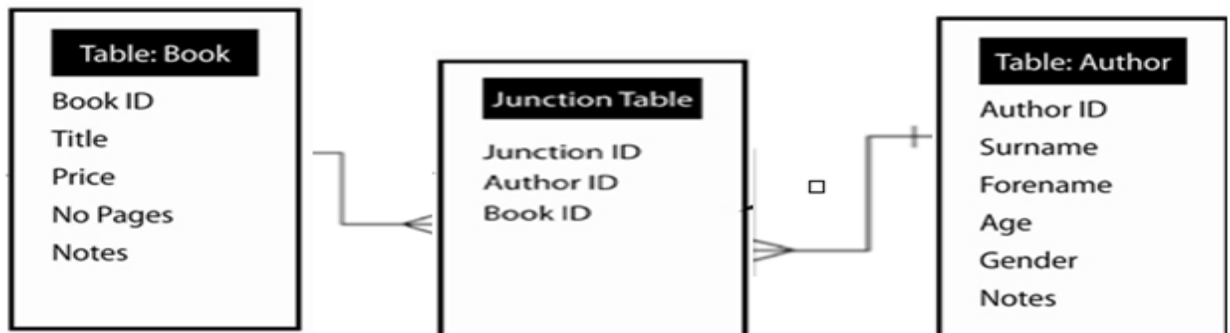


24. Max Roll-Up Summary Field limit per object is 25.

4. Junction Object:

1. Junction object is a custom object.
2. Junction object has two master-detail fields on it.
3. Junction object maintains **Many to Many relation**.

For example, Books can have many authors and authors can write more than one book.



4. First Master -Detail field created on the junction object is called primary master.

Eg., Author ID in Junction Table here

5. Second Master-Detail field created on the Junction object is called secondary master.

Eg., Book ID in Junction Table here

6. Look and feel and ownership is inherited from primary master
7. If you delete any master record corresponding child records are deleted.
8. If any master record has more than 200 child records in the junction object, then we cannot delete that master record.

UseCase :

1. Create two Custom Objects

a. Course

SNO	Field Label	Field Name	Data Type	Options
1	Course Name	Name	Text	-
2.	Fee	Fee	Currency	-
3.	Status	Status	PickList	Active, InActive

b. Branch

SNO	Field Label	Field Name	Data Type	Options
1	Branch Name	Name	Text	-
2.	Phone	Phone	Phone	-
3.	Email	Email	Email	-

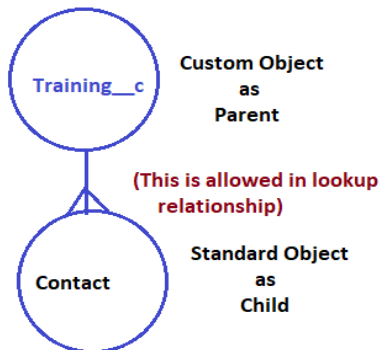
2. Create a Custom Object student using Schema Builder

SNO	Field Label	Field Name	Data Type	Options
1.	StudentId	Name	AutoNumber	-
2.	FirstName	FirstName	Text	-
3.	LastName	LastName	Text	-
4.	Phone	Phone	Phone	-
5.	Email	Email	Email	-
6.	Course	Course	Master-Detail(Course)	
7.	Branch	Branch	Master-Detail(Branch)	

3. Goto Student Detail page and add the fields to the pagelayout.
4. Create new Application CapitalInfo
5. Create new Custom object tabs for Course ,Branch ,Student and add them to CapitalInfo application.

5. Lookup Relation :

1. It is one-to-Many Relation.
2. It can be created on both standard and custom object.



3. It can be created on both objects which contains data or which doesn't contain data.
4. If you delete master record, then corresponding child records will not be deleted.
5. Owner of parent record and child record can be same or different.
6. We can create 40 lookup fields on a object.
7. It is an optional field.
8. We can create self lookup on an object.
9. Don't Allow deletion of Lookup Record which is a part of Lookup relation.
if you enable this option parent record which has child using lookup cannot be deleted.

6. Hierarchical Relation:

1. This can be created only on user object.
2. It is one-to-one relation,
3. This is used to create a relation between users.
Eg., Relate an user with another user as manager.

4. Steps to create Hierarchical relation.

```
Setup
|--->Build
    |--->Customize
        |--->User
            |--->Fields
                |--->Custom Fields & Relations
                    |----new
```

- Step 1: Choose datatype as hierarchical relation
- Step 2: Enter field Name and details
- Step 3: Add field level security
- Step 4: Add this field to the pageLayout.

We cannot convert lookup relationship field to master-detail if the detail object contains data.

To do this, follow the work around Process as below:

- Step 1 : Create Lookup field choosing master object as parent .
- Step 2: Go to every record existing in the child object and assign some value in the Lookup field
- Step 3: Change the data type from lookup to master-detail

```
Setup
|--->Build
    |--->Create
        |--->Object
            |--->Object Name
                |--->Fields
                    |--Choose the lookup field
```

- Step 1: Choose the Lookup field and click on edit
- Step 2: Change Type
- Step 3: Choose Master-Detail
- Step 4: Save