**Many to Many Relationship in Salesforce**

**Why Junction Object:**

1. Suppose we have Employee object having fields empid, empname, deptid and we have Project object having fields projected, projectname, startdate, enddate.
2. Employee can work on many projects whereas one project can have many employees working on it.
3. As we know, we create relationship field on MANY side of object.
4. In the given scenario, where could we create relationship field, because both objects are at MANY side of relationship.
5. If we create relationship field on Employee object, we can create Employee object record and assign employee on a project P-01.
6. What if same employee is also working on project P-02?
7. If we assign same employee to project P-02, first project entry P-01 will get deleted and override with project P-02.
8. Here we not able to track the employee working on multiple project as we can assign only one project id.
9. To resolve this problem, we can create one more record on Employee object having same employee entry that is empid, empname, deptid and different project id.
10. If the employee is working on three projects, we have to create three entries with same employee details and different project id.
11. It leads to data redundancy, which is a bad solution.
12. Same problem with Project object as well, as Project can also be at MANY side of relationship.
13. There can be data redundancy on Project object as well because multiple employees can work on one project and hence we have to create multiple project records with same data entry but different employee id.
14. To resolve this problem, we can create third object say EmployeeProjectDetails. And this object is at MANY side for both the object Employee and Project.
15. This third object is called junction object.
16. On third object, EmployeeProjectDetails, we create two master detail relationship and this object is at MANY side for both object Employee and Project.
17. Which means Employee object is at parent(master) side and EmployeeProjectDetails object is at child(detail) side.
18. Same is true for Project object too. That means, Project object is at parent(master) side and EmployeeProjectDetails object is at child(detail) side.
19. In this way, using junction object, we can create MANY-TO-MANY relationship in Salesforce.

**More About MANY-TO-MANY relationship:**

1. Whichever relationship field you create first, will become the primary relationship and with which object you create that field, is called primary master object.
2. And relationship field you create second, will become secondary relationship and with which object you create that field, is called secondary master object.
3. On junction object, “Owner” field is derived from primary master object and not from secondary master object.
4. Look and feel is also derived from primary master object.
5. “Security and Sharing setting” is derived from both the objects, primary master object as well as secondary master object.
6. Primary relationship and secondary relationship, both control the “Security and Sharing” of junction object.
7. If you are not able to see one record say E-01 but you are able to see record P-01, you are not able to see record with E-01 value in junction object. You must have access to E-01 and P-01 to see that record in junction object.

**Note**: Max 40 custom relationship fields can be created including Master-Detail relationship on single object. Maximum 2 Master-Detail relationship can be created per object and 38(remaining) on lookup relationship.