# Usage of Joins in Tableau

Tableau doesn’t directly use joins, instead it uses relationships, which are same.  
  
- Relationships in Tableau  
 - They are like “smart joins.”  
 - Automatically decide how tables should connect.  
 - Adjusts depending on the fields you use in the worksheet.  
  
Why Tableau uses Relationships (instead of fixed joins):  
- Flexible → You don’t need to worry about wrong joins at the start.  
- Performance → Tableau only pulls data when required.  
- Cleaner → Keeps your data model simple even with many tables.  
  
But still, Tableau has Joins when you need them:  
- Joins combine two or more tables into one before analysis.  
- Used when you want control over how data is merged.  
  
Types of Joins in Tableau:  
1. Inner Join  
 - Keeps only matching rows from both tables.  
 - Example: Students who are enrolled and have paid fees.  
  
2. Left Join  
 - Keeps everything from the left table + matches from the right.  
 - Example: All students, even if they didn’t pay fees.  
  
3. Right Join  
 - Keeps everything from the right table + matches from the left.  
 - Example: All fee records, even if a student record is missing.  
  
4. Full Outer Join  
 - Keeps all rows from both sides, matches when possible.  
 - Example: All students + all fees, even if some don’t match.  
  
When to use Relationships vs Joins:  
- Relationships (recommended):  
 - Multiple fact tables (like sales + returns).  
 - Different levels of detail (daily vs monthly).  
 - You want Tableau to handle flexibility automatically.  
  
- Joins (manual control):  
 - You know exactly how the data should merge.  
 - When working with simple, same-level tables.  
 - When you need all data in one single flat table.  
  
👉 Pro Tip (from the best analyst):  
- Start with relationships (safe + flexible).  
- Use joins only when you need precision.  
- Always check the data preview in Tableau to confirm the result.