Power BI Table Types – Detailed Notes (Hinglish)

# 1. Fact Table

🔹 Ye table hoti hai jisme saare transactions ya measurable data hota hai.  
🔹 Isme usually numbers hote hain jinko tum visuals mein use karti ho – jaise Sales, Quantity, Amount.  
🔹 Har row ek event ya transaction ko represent karti hai.  
🔹 Ye table Dimension tables se link hoti hai unke foreign keys ke zariye.

🧠 Example:  
- Sales Table: SalesID, CustomerID, ProductID, Quantity, SalesAmount, DateID  
- Har row ek sale ko represent karti hai.

# 2. Dimension Table

🔹 Ye descriptive ya lookup table hoti hai jo Fact table ke rows ko explain karti hai.  
🔹 Inme usually text-based information hoti hai.  
🔹 Ye filter context banati hai Power BI visuals ke liye.

🧠 Example:  
- Customer Table: CustomerID, CustomerName, City, State  
- Product Table: ProductID, ProductName, Category, Brand

# 3. Bridge Table

🔹 Jab do dimension tables ke beech Many-to-Many relationship hoti hai tab Bridge Table banayi jaati hai.  
🔹 Isme dono dimension tables ke keys hoti hain taaki indirect relationship ban sake.  
🔹 Ye Fact jaisa kaam karti hai but sirf linking ke liye.

🧠 Example:  
- StudentCourseBridge: StudentID, CourseID  
- CustomerProductBridge: CustomerID, ProductID

# 4. Date Table

🔹 Power BI mein Time Intelligence functions ke liye Date Table zaroori hoti hai.  
🔹 Ye ek calendar table hoti hai jisme date, month, quarter, year, week, etc. hote hain.  
🔹 Auto Date/Time feature se better hota hai kyunki custom control milta hai.

🧠 Example Columns:  
- Date, Month, MonthName, Quarter, Year, IsWeekday, FiscalYear

# 5. Lookup Table (Extended Dimensions)

🔹 Jab dimension table ke andar aur breakdown chahiye (multi-level hierarchy), tab Lookup table use hoti hai.  
🔹 Jaise Product ke andar Category aur Category ke andar Department.  
🔹 Ye hierarchy define karne ke liye kaam aati hai.

🧠 Example:  
- Category Table: CategoryID, CategoryName  
- Linked to: Product Table (via CategoryID)

# 6. Helper / Utility Table

🔹 Ye calculated ya manually created tables hoti hain jo visuals mein special filtering, sorting ya display ke liye use hoti hain.  
🔹 Inme actual data nahi hota – sirf control logic hota hai.

🧠 Example:  
- Status Filter Table: Status (Open, Closed, Pending)  
- KPI Level Table: Score Range, Performance Band (Good, Average, Poor)

# 📋 Summary Table

Type | Purpose | Example  
-----|---------|--------  
Fact Table | Transactions & Numbers | Sales, Orders  
Dimension Table | Descriptive Info | Product, Customer, Date  
Bridge Table | Many-to-Many Resolve | StudentCourseBridge  
Date Table | Time Intelligence | Date, Month, Year  
Lookup Table | Sub-Level Dimensions | Category linked to Product  
Helper Table | Custom Slicers/Filters | KPI Levels, Sorting Table