**Join of More than 2 Tables**

Scenario 1 🡪 **Resolving Many to Many relationship using the Associative Table.**

A user will have one or multiple permissions.

At the same time a single permission can be given to multiple users!!

create table Users

(UserID varchar(3),

Username varchar(30)

);

create table Privileges

(PrivID varchar(3),

PrivName varchar(30)

);

Insert into Users Values('U1','Smith');

Insert into Users Values('U2','Martin');

Insert into Users Values('U3','Allen');

Insert into Privileges Values('P1','Select');

Insert into Privileges Values('P2','Insert');

Insert into Privileges Values('P3','Update');

Insert into Privileges Values('P4','Delete');

Select \* from Users;

Select \* from Privileges;

**create table UPM**

**(UserID varchar(3),**

**PrivID varchar(3),**

**Date\_of\_Permission Date,**

**Assigned\_By varchar(30),**

**Reason varchar(500)**

**);**

Insert into UPM Values('U1','P1','12-Dec-2018','Roger','Project Usage');

Insert into UPM Values('U1','P2','27-Jan-2019','Roger','Project Usage');

Insert into UPM Values('U1','P4','31-Mar-2019','King','POC Usage');

Insert into UPM Values('U2','P3','21-Dec-2018','Roger','Project Usage');

Insert into UPM Values('U3','P2','2-Jan-2019','James','Client Demo Usage');

Insert into UPM Values('U3','P4','6-Jan-2019','James','Client Demo Usage');

select \* from UPM;

Select \* from Users;

Select \* from Privileges;

select \* from UPM;

Graphical user interface

Description automatically generated

**Problem statement 🡪**

**Display User Name and corresponding Privilege Name**

**Select U.UserName, P.PrivName**

**From Users U Join UPM UP**

**On U.UserID = UP.UserID**

**Join Privileges P**

**On UP.PrivID = P.PrivID;**

Table, Excel

Description automatically generated

**Select U.UserName, P.PrivName**

**From Privileges P Join UPM UP**

**On UP.PrivID = P.PrivID**

**Join Users U**

**On U.UserID = UP.UserID**;

Scenario 2 🡪

create table continent\_master

(ContinentID Varchar(15),

Name\_of\_Continent Varchar(20),

Continent\_Amount\_Allocated Int

);

create table country\_master

(ContinentID Varchar(15)

CountryID Varchar(15),

Name\_of\_Country Varchar(50),

Country\_Amount\_Allocated Int

);

create table transactions

(TrID Varchar(10),

CountryID Varchar(15),

Name\_of\_City Varchar(40),

Amount\_Spent Int

);

Insert into continent\_master values('Con1', 'Asia', 50000);

Insert into continent\_master values('Con2', 'Africa', 30000);

Insert into continent\_master values('Con3', 'Europe', 80000);

Insert into continent\_master values('Con4', 'Australia', 85000);

Insert into continent\_master values('Con5', 'Americas', 90000);

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Insert into country\_master values('Con1','Cu1','India',10000);

Insert into country\_master values('Con1','Cu2','China',20000);

Insert into country\_master values('Con1','Cu3','UAE',15000);

Insert into country\_master values('Con2','Cu4','Sudan',15000);

Insert into country\_master values('Con2','Cu5','Kenya',15000);

Insert into country\_master values('Con3','Cu6','France',20000);

Insert into country\_master values('Con3','Cu7','Germany',20000);

Insert into country\_master values('Con3','Cu8','Italy',20000);

Insert into country\_master values('Con4','Cu9','Australia', 12000);

Insert into country\_master values('Con4','Cu10','New Zealand', 9000);

Insert into country\_master values('Con5','Cu11','USA', 50000);

Insert into country\_master values('Con5','Cu12','Canada', 35000);

Insert into country\_master values('Con5','Cu13','Brazil', 20000);

Insert into country\_master values('Con5','Cu14','Argentina', 15000);

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Insert into Transactions values('T1', 'Cu1','Mumbai',200);

Insert into Transactions values('T2', 'Cu1','Mumbai',150);

Insert into Transactions values('T3', 'Cu1','Delhi',50);

Insert into Transactions values('T4', 'Cu1','Delhi',70);

Insert into Transactions values('T5','Cu2','Beijing',300);

Insert into Transactions values('T6','Cu2','Beijing',200);

Insert into Transactions values('T7','Cu2','Shanghai',700);

Insert into Transactions values('T8','Cu2','Shanghai',900);

Insert into Transactions values('T9','Cu3','Dubai',1000);

Insert into Transactions values('T10','Cu3','Dubai',1500);

Insert into Transactions values('T11', 'Cu3','Abu Dhabi',800);

Insert into Transactions values('T12', 'Cu3','Abu Dhabi',600);

Insert into Transactions values('T13','Cu4','Khartoum',80);

Insert into Transactions values('T14','Cu4','Khartoum',20);

Insert into Transactions values('T15','Cu4','Kassala',50);

Insert into Transactions values('T16','Cu4','Kassala',10);

Insert into Transactions values('T17','Cu5','Nairobi',90);

Insert into Transactions values('T18','Cu5','Nairobi',70);

Insert into Transactions values('T19','Cu5','Mombasa', 300);

Insert into Transactions values('T20','Cu5','Mombasa', 2000);

Insert into Transactions values('T21','Cu6','Paris', 900);

Insert into Transactions values('T22','Cu6','Paris', 1100);

Insert into Transactions values('T23','Cu6','Lyon', 2100);

Insert into Transactions values('T24','Cu6','Lyon', 200);

Insert into Transactions values('T25','Cu7','Berlin', 500);

Insert into Transactions values('T26','Cu7','Berlin', 700);

Insert into Transactions values('T27','Cu7','Munich', 1500);

Insert into Transactions values('T28','Cu7','Munich', 1700);

Insert into Transactions values('T29','Cu8','Rome', 3000);

Insert into Transactions values('T30','Cu8','Rome', 2000);

Insert into Transactions values('T31','Cu8','Milan', 500);

Insert into Transactions values('T32','Cu8','Milan', 800);

Insert into Transactions values('T33','Cu9','Sydney', 2800);

Insert into Transactions values('T34','Cu9','Sydney', 3100);

Insert into Transactions values('T35','Cu9','Melbourne', 1400);

Insert into Transactions values('T36','Cu9','Melbourne', 2400);

Insert into Transactions values('T37','Cu10','Auckland', 600);

Insert into Transactions values('T38','Cu10','Auckland', 800);

Insert into Transactions values('T39','Cu10','Wellington', 2100);

Insert into Transactions values('T40','Cu10','Wellington', 2700);

Insert into Transactions values('T41','Cu11','Sand City', 5000);

Insert into Transactions values('T42','Cu11','Sand City', 6000);

Insert into Transactions values('T43','Cu11','Dublin', 2000);

Insert into Transactions values('T44','Cu11','Dublin', 1000);

Insert into Transactions values('T45','Cu12','Toronto', 2200);

Insert into Transactions values('T46','Cu12','Toronto', 3300);

Insert into Transactions values('T47','Cu12','Ottawa', 2100);

Insert into Transactions values('T48','Cu12','Ottawa', 1300);

Insert into Transactions values('T49','Cu13','Sao Paulo', 900);

Insert into Transactions values('T50','Cu13','Sao Paulo', 400);

Insert into Transactions values('T51','Cu13','Rio de Janeiro', 700);

Insert into Transactions values('T52','Cu13','Rio de Janeiro', 800);

Insert into Transactions values('T53','Cu14','Buenos Aires', 200);

Insert into Transactions values('T54','Cu14','Buenos Aires', 400);

Insert into Transactions values('T55','Cu14','Rosario', 2300);

Insert into Transactions values('T56','Cu14','Rosario', 4400);

**Problem statement 🡪**

**Display transaction id, continent name, country name, city name, amount allocated and amount spent**