

# Business Analytics

## - Report Studio - IBM Cognos - Create Reports Based on Query Relationships

Med. AMNAI

Filière Master Cloud BIG DATA

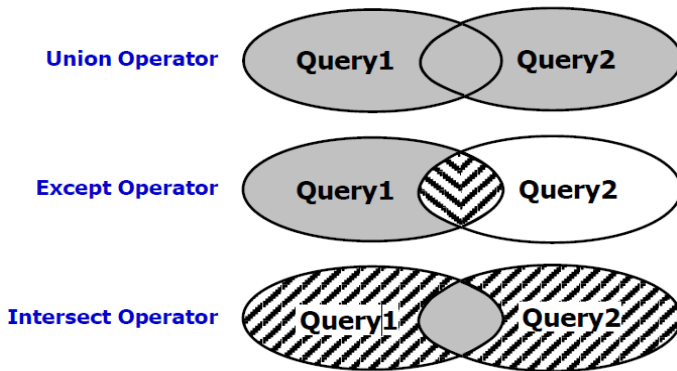
Département d'Informatique

# Objectives

- Create reports by merging query results ;
- Create reports by joining queries ;
- Combine data containers based on relationships from different queries ;

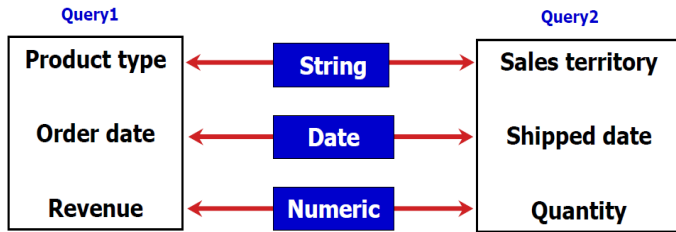
# Merge Query Results Using Set Operation Objects (1/2)

To retrieve only the data from separate queries that meets a specific relationship requirement, use set operations.



## Merge Query Results Using Set Operation Objects (2/2)

Combined queries must contain the same number of data items, the data items must be compatible, and must appear in the same order :



Two queries that could be combined using set operations

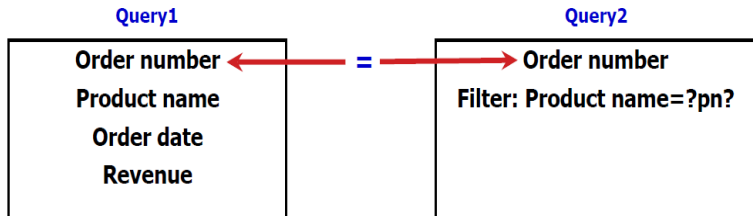
# Demo : Answer a Business Question by Creating a Union Between Two Queries

Demo - TP29 : Answer a Business Question by Creating a Union Between Two Queries

Sales rep/Order method	Revenue
Alphonse Sauvage	23,194,925.33
Chang-ho Kim	19,750,237.63
Charles Laurel	20,681,527.49
Fausta Bruno	21,672,254.62
Florenza Giordano	22,414,321.95
Lotta Bichot	18,153,919.5
Nathalie Benoit	23,253,020.06
Roderick Albiñana	21,479,702.23
Roger Bakker	18,395,422.16
Warren Chambers	18,855,642.06
E-mail	23,701,042.57
Sales visit	73,918,652.38
Telephone	37,199,842.8
Web	1,339,714,172.77

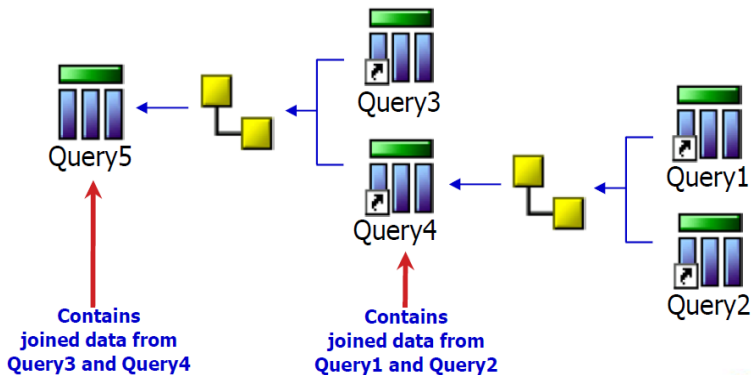
# Create Join Relationships Between Queries (1/2)

Create join relationships between queries when you need to create a relationship between data in separate queries to answer a specific business question.



## Create Join Relationships Between Queries (2/2)

To retrieve the data you requires, you can join a query or create multiple joined queries.



# Demo : Analyze Product Sales by Joing Two Queries




## Demo- TP 30 : Analyze Product Sales by Joing Two Queries

Order number	Date	Product	Quantity	Revenue
100183	Feb 9, 2010	Bear Edge	216	8,402.4
		EverGlow Kerosene	220	6,732
		Star Lite	287	98,791.14
		TrailChef Cook Set	540	28,177.2
		TrailChef Single Flame	477	29,621.7
		TrailChef Utensils	415	7,764.65
100183 - Total			2,155	179,489.09



# Create a Report Within a Report

You can create a report that delivers information that would otherwise require two or more reports.

Product line	Revenue	Product line Sales Trends
Camping Equipment	\$4,578,321	
Mountaineering Equipment	\$4,343,692	
Personal Accessories	\$3,178,613	

↑  
**Master list**

↑  
**Detail chart inside a list**

# Demo : Create a Revenue Report Using a Master Detail Relationship

## Demo - TP 31 : Create a Revenue Report Using a Master Detail Relationship

Country	Planned revenue	Revenue	Revenue by Quarter						
Australia	41,383,351.34	36,993,602.62	Revenue		Q1	Q2	Q3	Q4	2012 Total
			Melbourne	Alice Water	2,019,726.71	2,119,397.51	2,992,620.71	3,374,957.17	10,506,702.1
				Dave Smythe	2,160,537.08	1,032,231.18	1,800,088.74	1,047,201.63	6,916,036.81
				Donald Ward	2,178,861.5	4,002,379	1,926,622.95	1,203,388.63	9,401,250.08
				Jackie Flutord	2,074,084.88	1,559,967.22	2,133,314.29	2,427,298.86	8,194,665.25
				John Cartel	207,487.54	377,384.22	103,522.89	894,201.45	1,582,086.1
				John Sinden		752,028.45	1,208,888.04	306,593.78	2,367,480.28
			Austria	30,066,727.76	28,345,967.86	Revenue		Q1	Q2
Wien	Jutta Shutz	2,630,989.73				2,536,576.57	1,667,504.69	2,603,829.28	9,438,792.37
	Sabine Gruner	2,444,012.59				2,680,555.17	3,670,905.95	3,397,724.96	12,193,198.67
	Thomas Schirmer	2,304,302.89				1,347,554.07	1,200,282.02	1,356,877.64	6,216,976.62

# Demo : Create a Report Comparing Quantity Sold in Different Order Years

Demo - TP 32 : Create a Report Comparing Quantity Sold in Different Order Years.

Order method type	Quantity 2010	% Change (2010 - 2011)	Quantity 2011	% Change (2011 - 2012)	Quantity 2012
E-mail	1,986,395	-51.25%	968,453	-57.76%	409,049
Fax	688,786	-38.15%	426,006	-41.50%	249,234
Mail	488,735	-30.51%	339,635	-64.78%	119,619
Sales visit	2,640,065	-32.62%	1,778,941	-20.66%	1,411,468
Special	340,021	-25.76%	252,429	-94.60%	13,622
Telephone	3,979,898	-43.42%	2,251,898	-69.60%	684,667
Web	10,050,830	74.19%	17,507,323	31.68%	23,054,131