

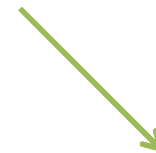


# 7 Optimization

Solutions

- Exercise I

ID	Lastname	Firstname	Birth Date	ZIP code	Phone	Income
1	A	X	01.02.78	38100	61432	35K
2	B	Y	06.03.75	38108	61433	60K
3	C	Z	09.02.88	38106	51434	55K
...	...	...	...	...	...	...



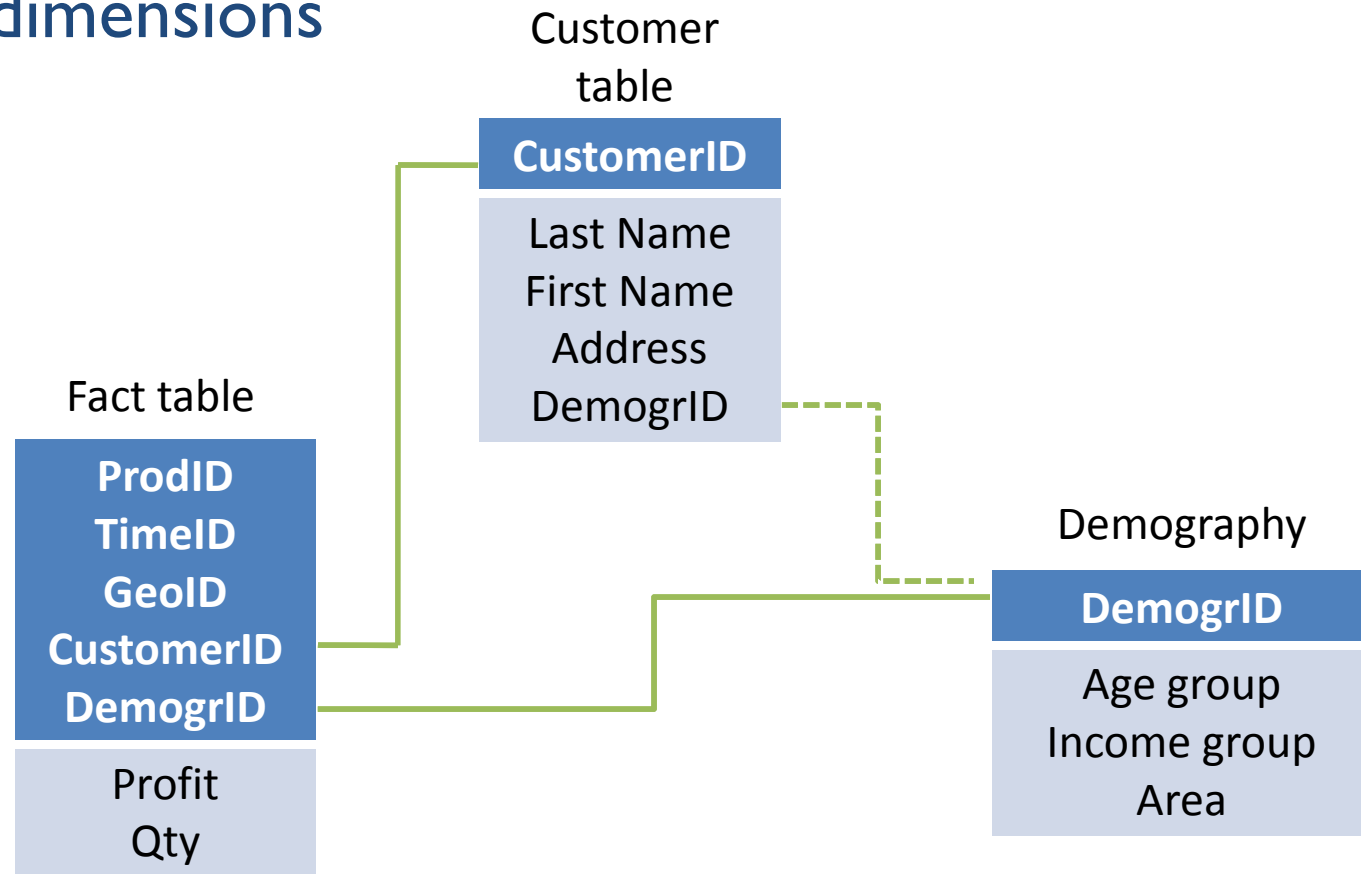
ID	Birth Date	ZIP code	Income
1	01.02.78	38100	35K
2	06.03.75	38108	60K
3	09.02.88	38106	55K
...	...	...	...

ID	Lastname	Firstname	Phone
1	A	X	61432
2	B	Y	61433
3	C	Z	51434
...	...	...	...



# 7 Optimization

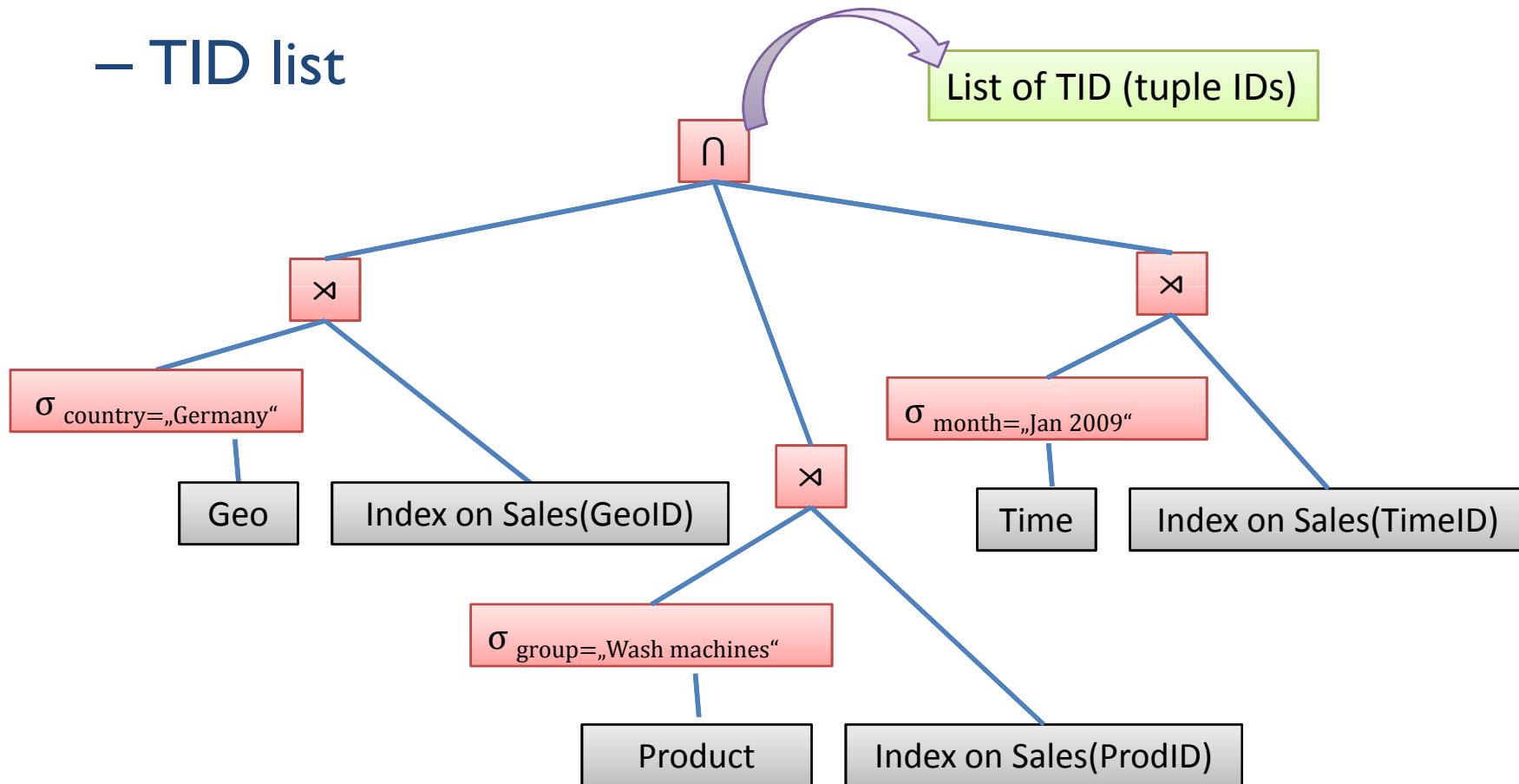
- Exercise I
  - Mini-dimensions





# 7 Optimization

- Exercise 2
  - TID list





# 7 Optimization

Solutions

- Exercise 2
  - TID list

ID	GeoID	ProdID	TimeID
1	1	2	1
2	1	2	2
3	1	2	3
4	3	1	1
5	2	3	3
6	2	1	1
7	1	4	2

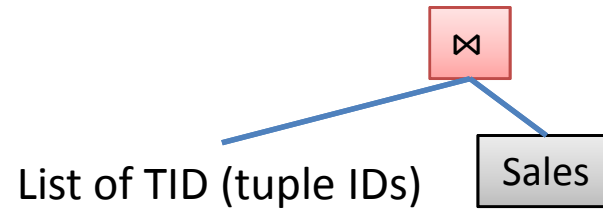


ID	GeoID	ProdID	TimeID
2	1	2	2
3	1	2	3
5	2	3	3



# 7 Optimization

- Exercise 2



ID	GeoID	ProdID	TimeID
2	1	2	2
3	1	2	3
5	2	3	3



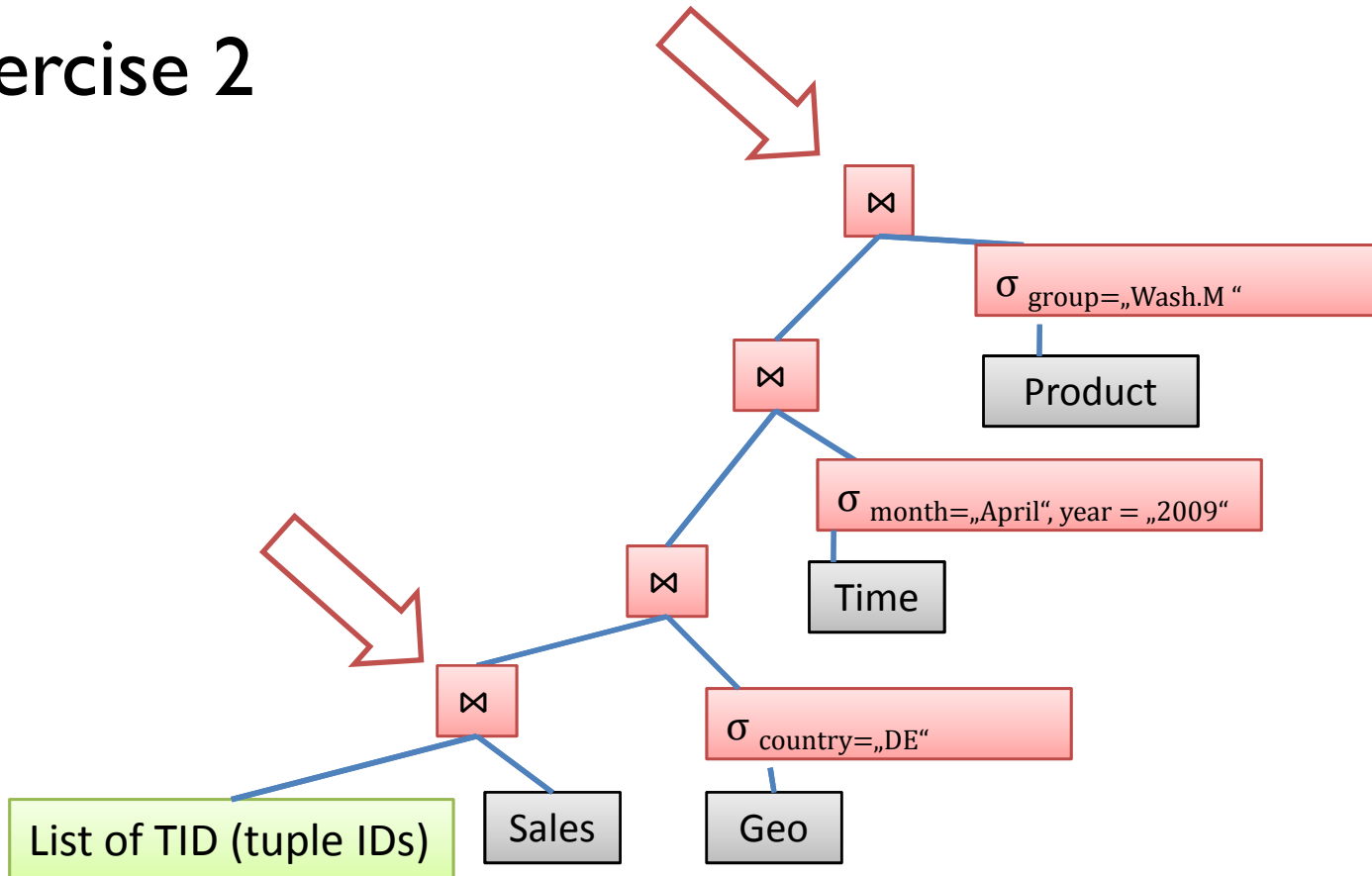
ID	GeoID	ProdID	TimeID	Qty
2	1	2	2	5
3	1	2	3	2
5	2	3	3	2

ID	GeoID	ProdID	TimeID	Qty
1	1	2	1	1
2	1	2	2	5
3	1	2	3	2
4	3	1	1	6
5	2	3	3	2
6	2	1	1	2
7	1	4	2	3



# 7 Optimization

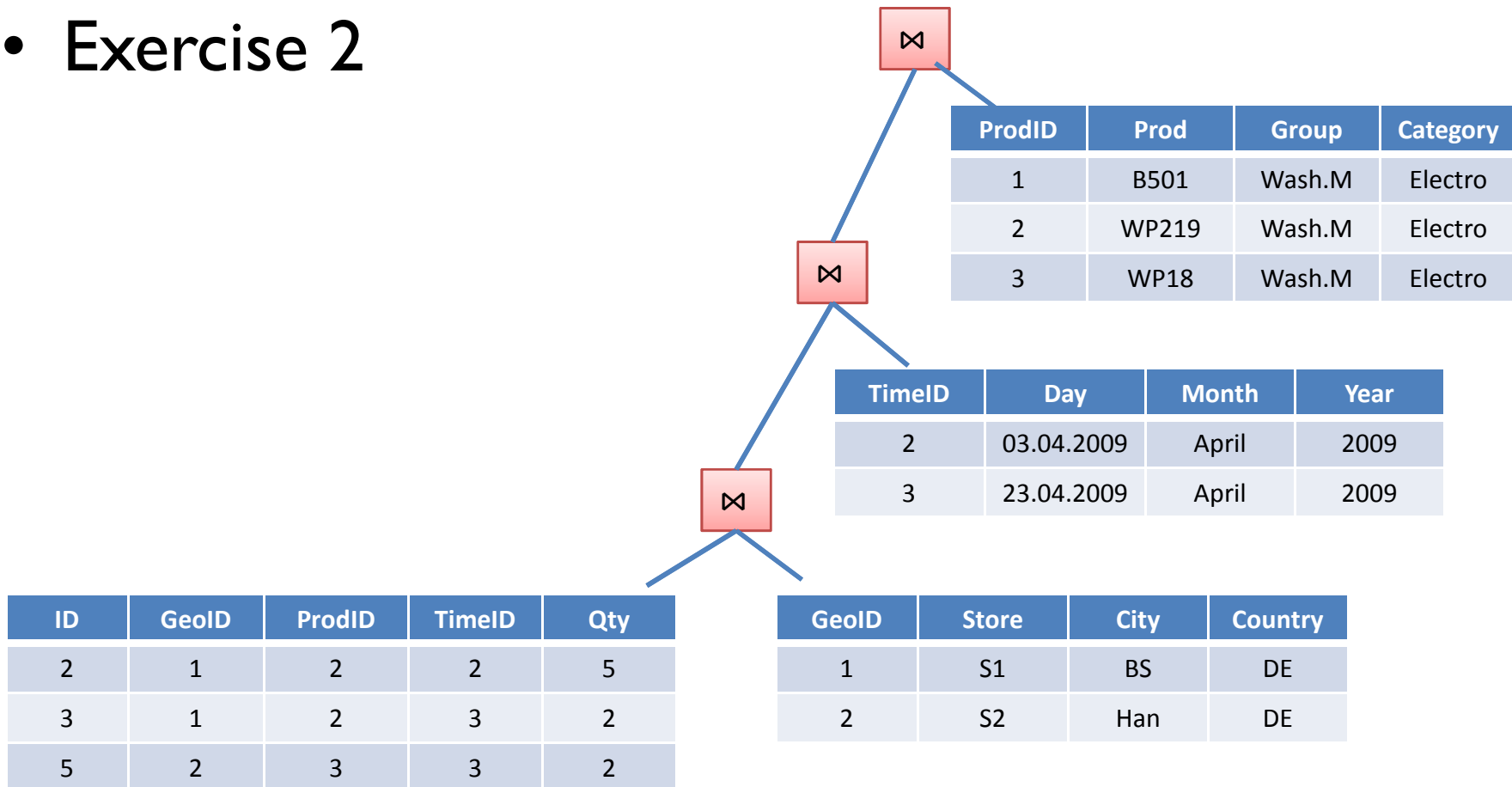
- Exercise 2





# 7 Optimization

- Exercise 2





# 7 Optimization

*Solutions*

- Exercise 2

ID	GeoID	Store	City	Country	ProdID	Prod	Group	Categ	TimeID	Day	Month	Year	Qty
2	1	S1	BS	DE	2	WP219	Wash.M	Electro	2	03.04. 2009	April	2009	5
3	1	S1	BS	DE	2	WP219	Wash.M	Electro	3	23.04. 2009	April	2009	2
5	2	S2	Han	DE	3	WP18	Wash.M	Electro	3	23.04. 2009	April	2009	2





# 7 Optimization

*Solutions*

- Exercise 3
  - Materialized views?
  - CREATE MATERIALIZED VIEW Totalsales (ProdID, GeoID, total) AS SELECT S.ProdID, S.GeoID, SUM(S.Qty) FROM Sales SGROUP BY S.ProdID, S.GeoID
  - SELECT P.Categ, SUM(T.Total) FROM Product P, Totalsales T WHERE P.ProdID=T.ProdID GROUP BY P.Categ



# 7 Optimization

*Solutions*

- Exercise 3
  - (Prod. Group, Prod.Categ) - (Prod. Group)
  - (Article, Prod. Categ) – (Article)
  - (Article, Prod. Group, Day) – (Article, Day)



# 7 Optimization

Solutions

- Exercise 3
  - Static or Dynamic materialized views in DW?
  - OLAP applications are interactive
    - Usually, the user runs a series of queries to explain a behavior he has observed, which happened for the first time
      - So now the query set comprises hard to predict, ad-hoc queries
  - There are, however, also by OLAP applications, queries which repeat often which should be static materialized
  - **But dynamic MV is a must**