

**REQUIREMENTS**

Total billed amount for hospitalizations, by diagnosis code and description, by month (year).

Total number of hospitalizations and billed amount, by ward, by patient gender (age at date of admission, city, region).

Total billed amount, average length of stay and average waiting time, by diagnosis code and description, by name (specialization) of the physician who has admitted the patient.

Total billed amount, and average waiting time of admission, by patient age (region), by treatment code (description).

**Dimensions**

Date (month, year)  
Diagnosis (code, description)

Ward  
Patient (gender, age, City, region)

Diagnosis (code, description)  
Physician (name, specialization)

Patient (age, region)  
Treatment (code, description)

**Measures**

Amount

Amount

Amount  
Duration  
Waiting Time

Amount  
Waiting Time

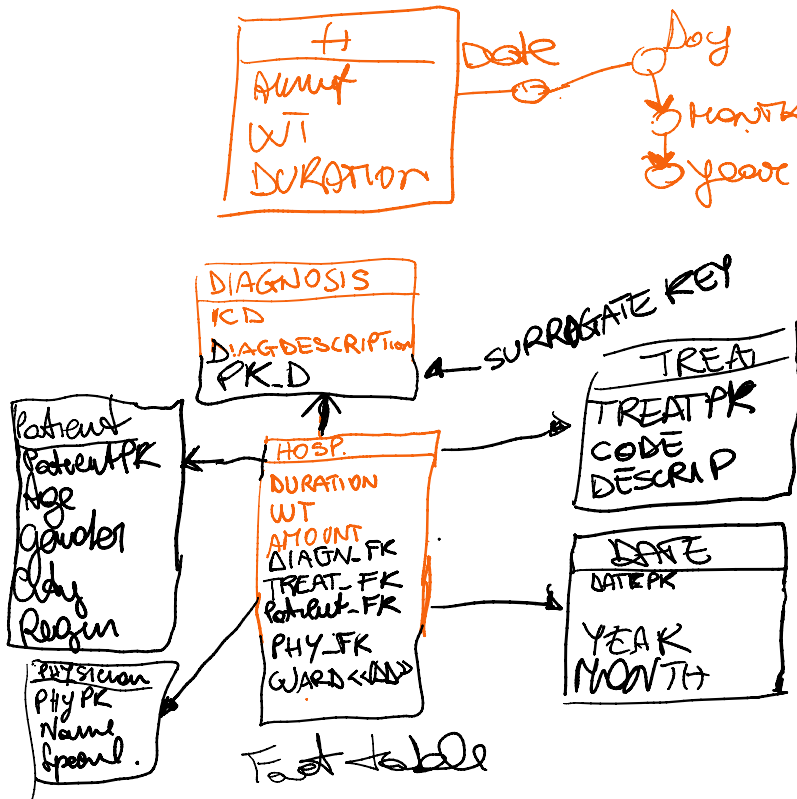
**Metrics**

Total Amount

Total Amount  
Total Number

Total Amount  
Average Duration  
Average WT

Total Amount  
Average WT



Ex. Fact table

D	WT	A	PK
			1
			1
20	3	100	2

Ex. DIAGNOSIS

PK	ICD	DESCR
1	AA	
2	BB	DABET

Q: N. of Hosp. by City and year

select count(\*), year, city  
From Patient, Hosp.  
Group by year, city

1998 55101 lives in Pisa  
2000 55101 lives in Livorno

Ex. above describe the case a patient moved from Pisa to Livorno

This change is not maintained in operational DB. Instead, we need to have the history of changes in the DW because we need to perform analysis requiring the n° of hospitalizations in Pisa in 1998 capturing all people in Pisa in that period. If we do not have the history

P-  
IF we do not have the history  
we cannot count in 1998  
the patient SSN01 because now  
the value of city is LIVORNO.

- PISA 1998 .
- LIVORNO 1998 .
- PISA 2000 .
- LIVORNO 2000 .

PK	SK (SSN)	Age	Gender	City
1	01	30	F	Pisa
2	02	40	M	LIVORNO
3	01	30	F	LIVORNO

↑  
IMPORTANCE OF SK

# SK for DATE

Date SK YYYYMMDD

year : yyyy 1998

month : yyyyMM 199801

day : yyyyMMDD 19980131

⇓  
surrogateKey

HIERARCHY :

we don't put day

because day has the same format and content as DATE\_PK (surrogate key)

DATE\_PK

↓ MONTH

↓ year