

BTA Case Study. (14-15) is

Sancheti Group of hospitals all over India at different locations/cities in India

Say → 20 cities... (Goa, Mumbai...)

✓ Theory - 1 page +
✓ 7-8 tables. +

Given → 7-8 tables.



Eg:- Hospital-info

Hosp-code	Hosp-name	Location	Estb year	Speciality	Capacity (beds)	Profit-margin
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(PK)

Out-Patient-info

Patent-code	Patent-name	Age	Gender	Add-hospital	Add-date	Dis-charge	Doc-Inc	Lab-Test-code
								Doc-In-time / Doc-Out-time

(CPK)

(FK)

(FK)

In-Patient-info

Patent-code	Name	Age	Gender	Add-rel Hosp	Add-date	Dis-charge	Doc-Inc	Lab-Test-code	Diagnosis
									Doc-In-time / Doc-Out-time

(FK)

(CPK)

Doctor

Doc-Id	Name	Age	Gender	Add	Hosp-code	Rating
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(PK)

Lab_info (FK) (FK)

Lab_no	Patient_Id	doc_id	date.	amount
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(PK)

Room

Room_no	room_type	status
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(PK) (FK)

Bill

Billno	PatientId	Doc.charge	room.charge	no_of_days	lab.charge_bill	Status_Payment
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(PK) (FK)

✱ Focus Area 1

SQL Query formation →

- ① Foreignkey, primary key ... / Detection of keys in all tables.
- ② Calculating the profit of each/top 3 hospital branches in past 1 year given that profit changes from hospital location.
- ③ Total loss that could occur if- pending bills for hospital A, B & C are not-paid.
- ④ How will you distinguish patients as per their diagnosis

⑤ Which has been more profitable Inpatient or Outpatient since Last three years & why?

⑥ Conversion ratio of [Inpatient to Outpatient] & pure outpatient.

*^{x1}. Focus Area 2

① Data format check → uniform.
(Date, Add, Add-date, dis-date).

② Quality check
↳ repetitive/pure
↳ Duplicate data

③ Data Anomalies $\begin{cases} \text{Insert} \\ \text{Update} \end{cases}$

④ normalization issues. $\begin{cases} \text{Combining } \underline{2/3 \text{ columns}} \\ \downarrow \textcircled{1} \end{cases}$

⑤ Optimizing table $\begin{cases} \text{changing format} \\ \text{of data/column.} \end{cases}$

Focus Area 3:-

- ① What should be the profit margin % in order to ensure 30% profit annually per hospital?
- ② Rates of Lab test, are they okay?? / not.
- ③ ~~Should the~~ How can we manage patients better & what changes can be made to ensure hospital treatment becomes affordable yet profitable

↓

~~us~~
patients

↓

hospitals.
- ④ Should the hospital workforce ~~not~~ be changed / removed, if so (doctors, nurses) which one??
- ⑤ Suggest a way to monitor doctor / nurse whether they're performing duty wisely.