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Q2 B]

Ans B)

Normalization :- It is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion, Anomalies Normalization rules divides larger tables into smaller tables and links them using relationships.

Importance of Normalization

Normalization is a process to eliminate the flaws of a database with bad design. A poorly designed database is inconsistent and create issues while adding, deleting or updating information. The purpose of normalization is to eliminate redundant data.

Types :-
1) 1NF
2) 2NF
3) 3NF
4) BCNF
5) 4NF
6) 5NF
7) 6NF

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1) 1NF :- It stands for 1 Normal form.
- Each table cell should contain a single value.
- Each record needs to be unique.

example

Name	add	Solution.
Janet	first street	MS.
Janet	first steet	MS.
Robert	3rd street	Mr.
Robert	3rd street	Mr.

2) 2NF :- It stands for 2 Normal form.
- Rule 1- Be in 1NF
- Rule 2 :- Single column Primary key that does not functionally dependant on any subset of candidate key relation.

ex:-

ID	Name	add.	Solution.
1	Janet	1st street	MS
2	Robert	3rd street	Mr.
3	Robert	5th Avenue.	Mr.

:-

ID	Movies
1	POTC
1	COTT
2	DLC
2.	Forgotten Org.

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3NF ⇒ It stands for 3rd Normal form

Rule 1 ⇒ Be in 2NF

Rule 2 ⇒ Has no transitive functional dependencies.

eg ⇒

ID	Name.	add	SalyID
1	Janet	First	2
2	Robert	3rd	1
3	Robert	5th	1

⇒

ID	Movies
1	PP
1	CC
2	DD
2	EE

⇒

Salut ID	Salution.
1	Mr.
2	MS.
3	Mrs.

BCNF ⇒ It stands for ~~Boyce~~ Boyce-Codd Normal form).

Even when a database is in 3rd Normal form, still there would be anomalies form Still there would be anomalies resulted if it has more that on candidate key.