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ID: 15125

BS (SE) 4th SECTION (B)

SBU: DATABASE

MIS.RIMSHA KHAN

Q NO 1:

ANS NO 1:

CANDIDATE KEY:

Candidate key is a set of attribute that uniquely identify tuples in a table. candidate key is a supper key with no repeated attributes. the primary key should be selected from the candidate keys. every table must have at least a single candidate key. A table can have multiple candidate keys but only a single primary key.

EXAMPLE:

in the given table student id and cell are candidate key which help us to uniquely identify the student record in a table.

ID	NAME	SEMESTER	DEPARTEMENT	CELL
1	Sania	1	CS	03334324234
2	Romaisa	1	CS	03335399123
3	Alina	1	CS	03150034224
4	Ayeza	3	CS	03455559822

ANS NO 2:

DATA REDUNDANCY:

Data redundancy is a condition created within a database or data storage technology in which the same piece of data is held in two separate places. ... Whenever data is repeated, this basically constitutes data redundancy. This can occur by accident, but is also done deliberately for backup and recovery purposes. Redundancy means having multiple copies of same data in the database. This problem arises when a database is not normalized. Suppose a table of student details attributes are: student Id, student name, college name, college rank, course opted.
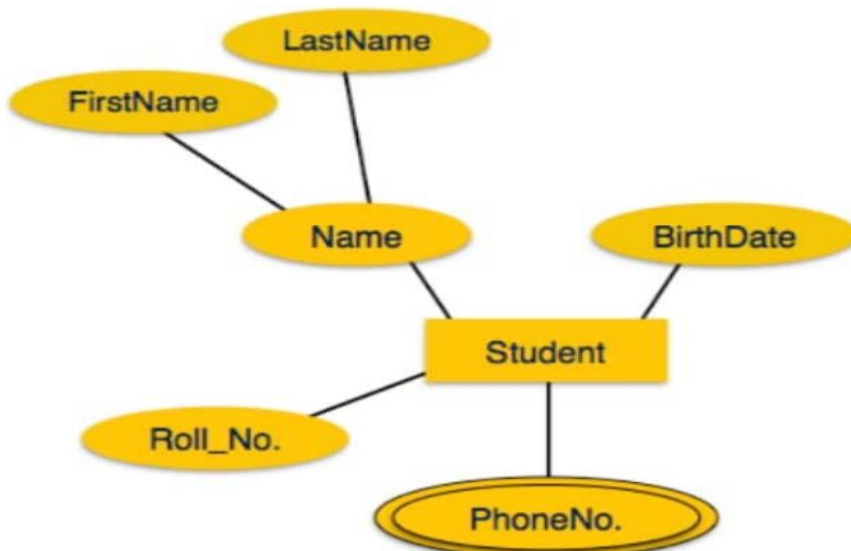
DATA INTEGRITY:

Data integrity is the maintenance of, and the assurance of the accuracy and consistency of data over its entire life-cycle, and is a critical aspect to the design, implementation and usage of any system which stores, processes, or retrieves data. The term is broad in scope and may have widely different meanings depending on the specific context – even under the same general umbrella of computing. It is at times used as a proxy term for data quality , while data validation is a pre-requisite for data integrity. Data integrity is the opposite of data corruption . The overall intent of any data integrity technique is the same: ensure data is recorded exactly as intended (such as a database correctly rejecting mutually exclusive possibilities,) and upon later retrieval, ensure the data is the same as it was when it was originally recorded. In short, data integrity aims to prevent unintentional changes to information. Data integrity is not to be confused with data security, the discipline of protecting data from unauthorized parties.
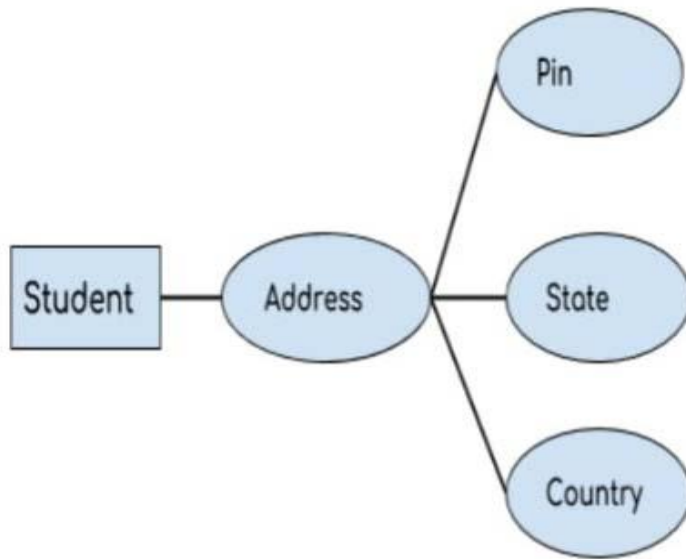
ANS NO 3:

MULTIVALUED ATTRIBUTE:

An attribute that can hold multiple values is known as multivalued attribute. its represented with double ovals in an ER diagram. For example --- A person can have more then one phone numbers so the phone number attribute is multivalued.

CONCEPTUAL MODEL:

must attributes are atomic attributes. a multivalued attribute may have one or more value for a particular entity. A typical example of a composite attribute is a person address which composed of atomic attributes, such as city, zip, and street.

ANS NO 4

- ❖ Doing rapid development of database application in a busy corporate setting.
- ❖ Extensive constraints, automated task, error logs, and defensive coding .
- ❖ the maintenance task, fixing bugs and deploying the fixes.
- ❖ cleaning up the data.
- ❖ dealing with concurrency queries issue.

ANS NO 5

MONDATORY ONE:

Relationship exists when zero or one instance of entity associate with zero or on instance of B, and zero or on instance of entity B can be associate with zero or one instance of entity., a one-

MONDATORY MANY:

In relational database design, A one-to-many (1:N) relationship exists when, for one instances of entity A, there exists zero , one, or many instance of entity B, but for one instance of entity B, there exists zero or one instance of entity A.

OPTIONAL ONE:

A member of staff does have to be placed in a department , but all departments must have at least one member of staff.

OPTIONAL MANY:

A performer might have one or more booking. a booking might be associate with a performer.

in this case, a booking could be for an exhibition as it is optional for a booking to involve a performer, as indicated by the hollow circle. a performer might decline to accept any booking, this is acceptable, as it is optional for a performer to have a booking. show by the hollow circle.
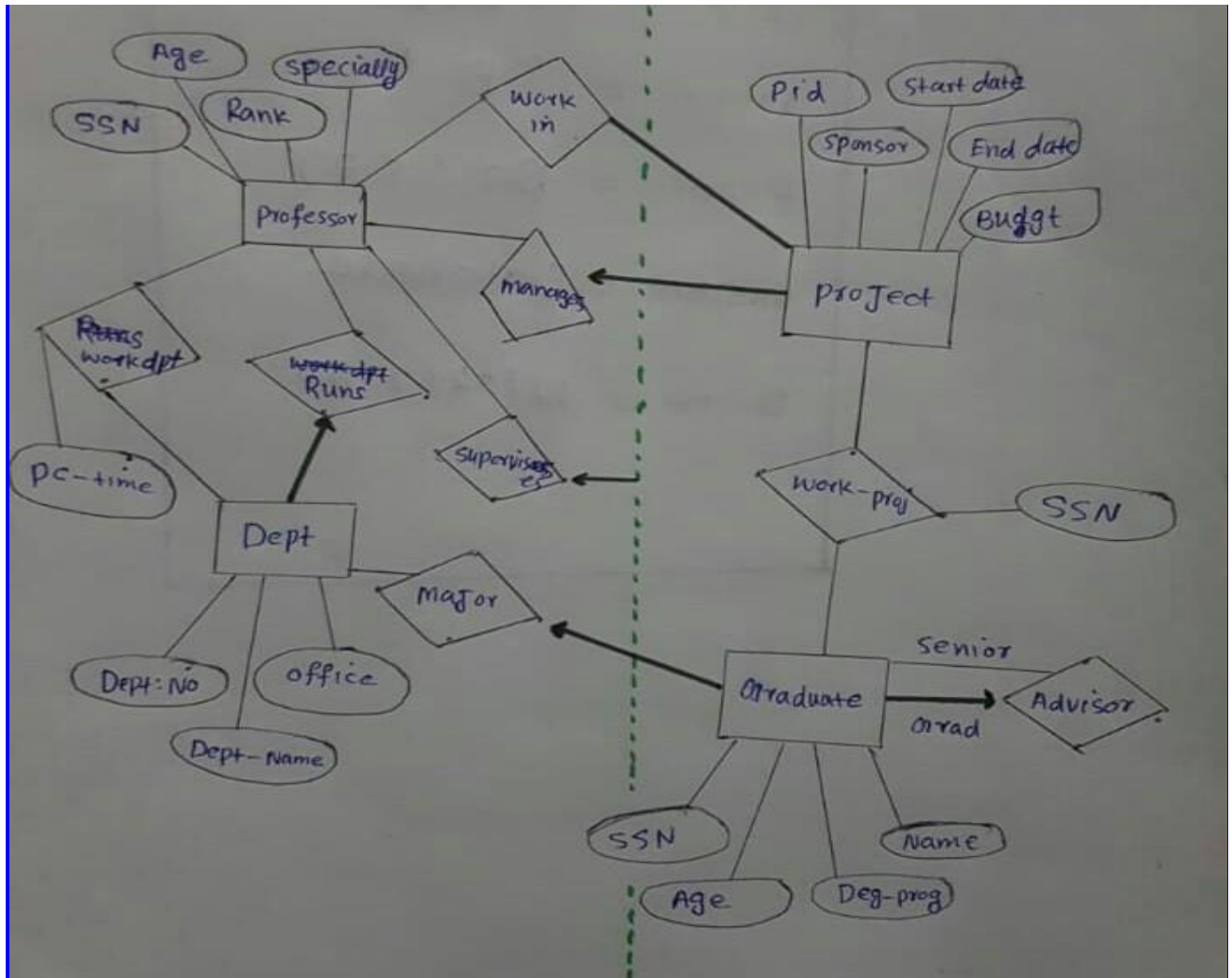
ANS NO 6

DATABASE BACKUP APPROACH:

A shared corporate database must be accurate and available at all times. This requires that comprehensive procedures be developed and used for providing backup copies of data and for restoring a database . when damage occurs. These considerations have acquired increased urgency in today's security-conscious environment.
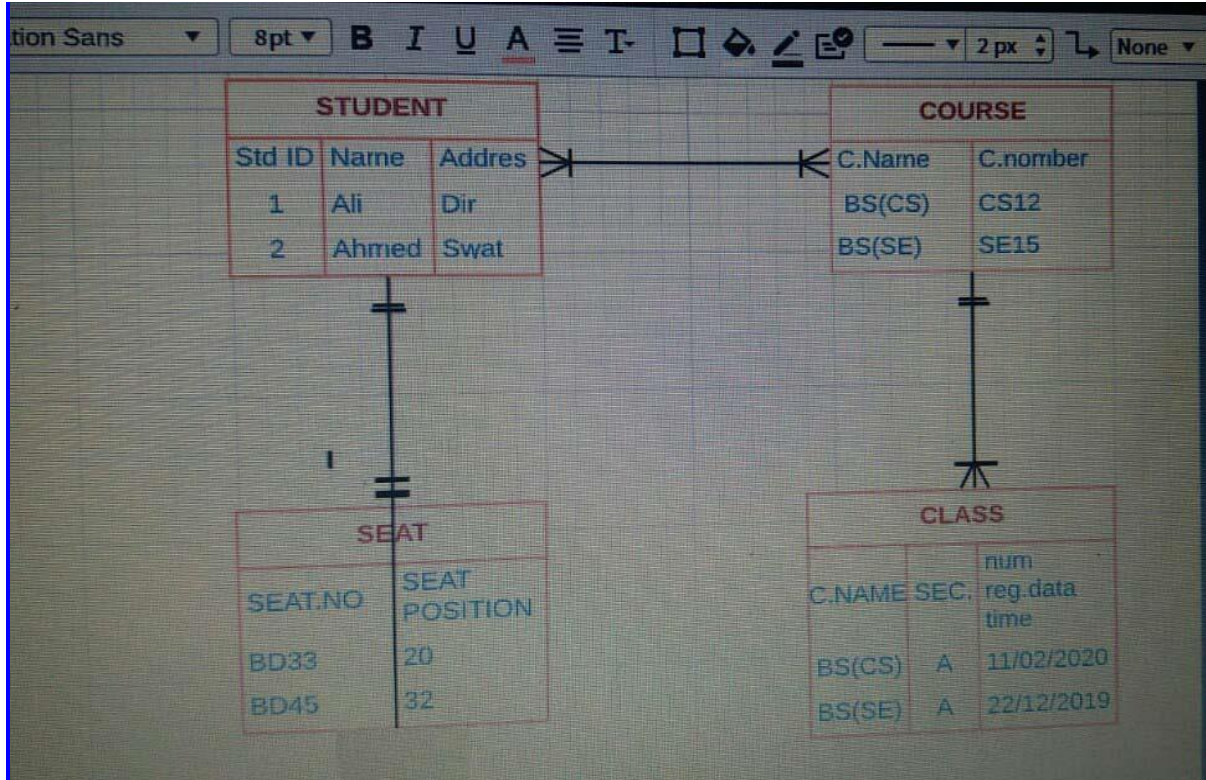
Q NO 2

Ans:

Q NO 3

STUDENT		
Std ID	Name	Addres
1	Ali	Dir
2	Ahmed	Swat

COURSE	
C.Name	C.nomber
BS(CS)	CS12
BS(SE)	SE15

SEAT	
SEAT.NO	SEAT POSITION
BD33	20
BD45	32

CLASS		
C.NAME	SEC.	num reg.data time
BS(CS)	A	11/02/2020
BS(SE)	A	22/12/2019

THE END