

Name

Abdul - Aziz

ID

14619

Degree

BS SE

Semester — 4

Section "A"

Mam -

Rim Sha Khae

Paper -

Database

Dated -

23 ⁴/₂₀₂₀

Q1:Ans

Candidate key:-

A candidate key is a super key without redundancy.

→ A candidate key is not reducible further.

→ minimum set of attributes used to uniquely differentiate record of the table.

e.g

ID	Name	Semester	Department	Cell
1	Sania	1	CS	03339324234
2	Romais	1	CS	02775399123
3	Alina	1	CS	03150034224
4	Ayaza	3	CS	03455559822

In the above figure

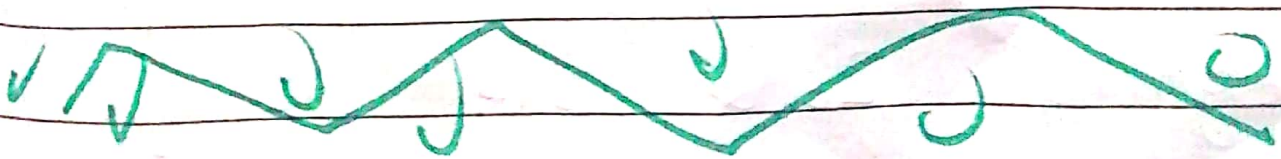
ID alone is a candidate key.

important Points,

→ A Candidate key can never be null and empty and its value should be unique.

→ there can be ~~over~~ more than one key for a table.

→ A candidate key can be combination of more than one attribute.



Q2:-

Ans

Data integrity:-

Data integrity mean the reliability and accuracy of data.

Data integrity is the maintenance of and the assurance of the accuracy and consistency of data over its entire

life-cycles and is a critical aspect to the design, implementation and usage of any system

we store process or retrieves data.

->

-> integrity Rule are design to keep the data consistent and correct-

-> The Rule acts like a check on the incoming data. it's very important that a data base maintains the quality of the data added in it.

ii) Date Redundancy:-

Redundancy mean multiple ~~copy~~ copies of the same data.

→ in file processing system the same data may be duplicated in a several file.

for example a table:-

ID	stdname	class	teachID	name	Subje
1	Ali	BS	001	shahid	maths
2	ASIB	BS	001	shahid	maths
3	Sami	BS	002	Abeg	1010
4	Akmal	BS	001	shshid	maths

in the above figg, we have multiple copies of the teacher shahid. the same person is enter in multiple time multiple location. that multiple entrie is called redundant data.

Q32

Ans2

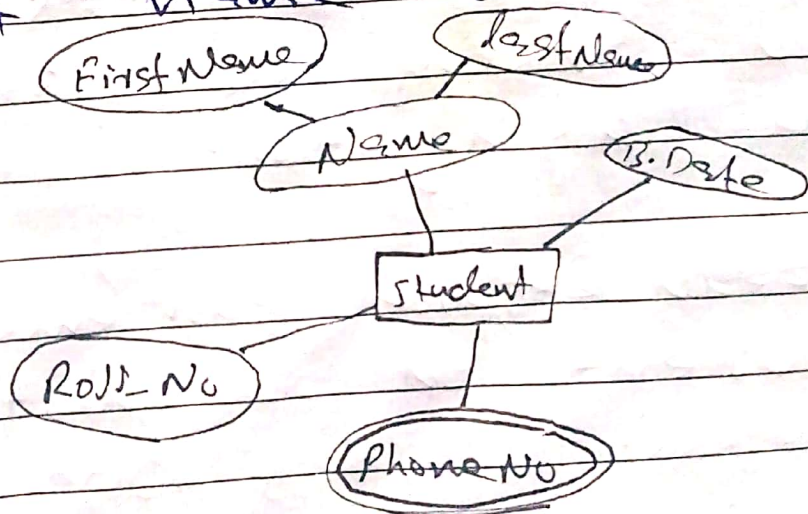
Multivalued Composite attributes.

A multivalued composite attribute may have one or more values for a particular entity. A typical example of multivalued composite attribute is a person's address.

W/c is composite of atomic attributes. Such is a city, zip and street.

Example 2.1

Another example is a Student name & etc



Q4:

Ans: - Reduced maintenance:
Maintenance in database have little or not effect on the database application thus reducing the maintenance costs.

→ A database management system reduces the amount of data duplication by ensuring that a physical piece of data.

→ Emphasizes the ~~data~~ integration and sharing of data throughout the organization.

→ ~~Data~~ Requires fundamental reorientation or shift through process. Starting with top management.

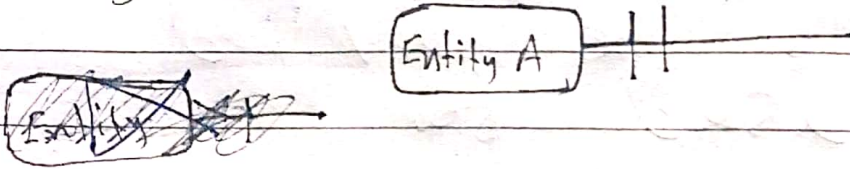
→ A Database can reduce data redundancy.

Q 5:

Ans

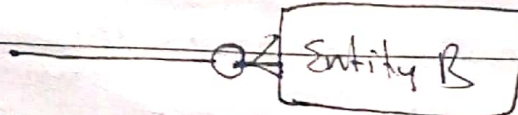
i) Mandatory:

A mandatory relationship is shown with a vertical line next to the cardinality (must be at least one entity A)
e.g



ii) Optional:

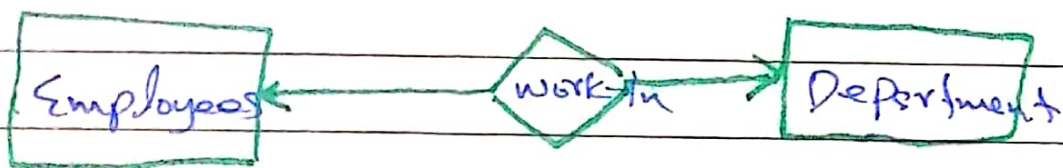
An optional relationship is shown with a hollow circle next to the cardinality. (there may be '0' to many many of entity B.)



• There are several types. Consider the optionality of the next few examples when combined with cardinality.

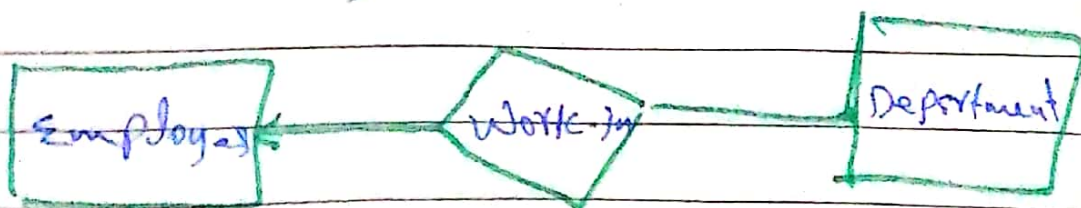
mandatory one:

Relationship exists when zero or any instance of entity A can be associated with zero or one instance of entity B. And zero or one instance of entity B can be associated with zero or one instance of entity A.



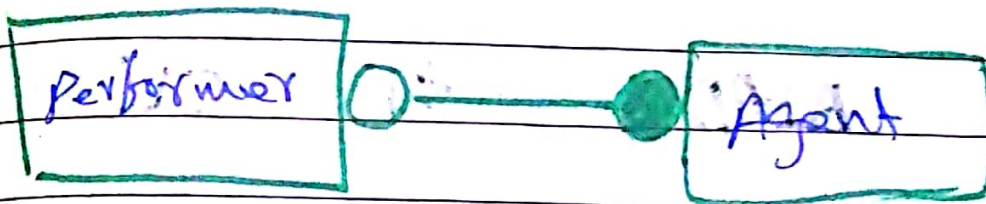
ii) Mandatory many:

In relation ship data base design a one-to-many (1:N) relationship exist when for one instance of entity B. there exists zero or one instance of entity A.



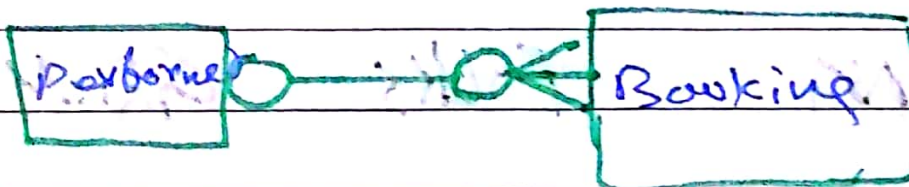
Optional ones

A member of staff does not have to be placed in a department, but all departments must have at least one member of staff.



iv) Optional many

A performer might have one or more bookings might be associated with a performer.



In this case a booking could be for an exhibition as it's optional for a booking involve a performer.

Q6.

Ans

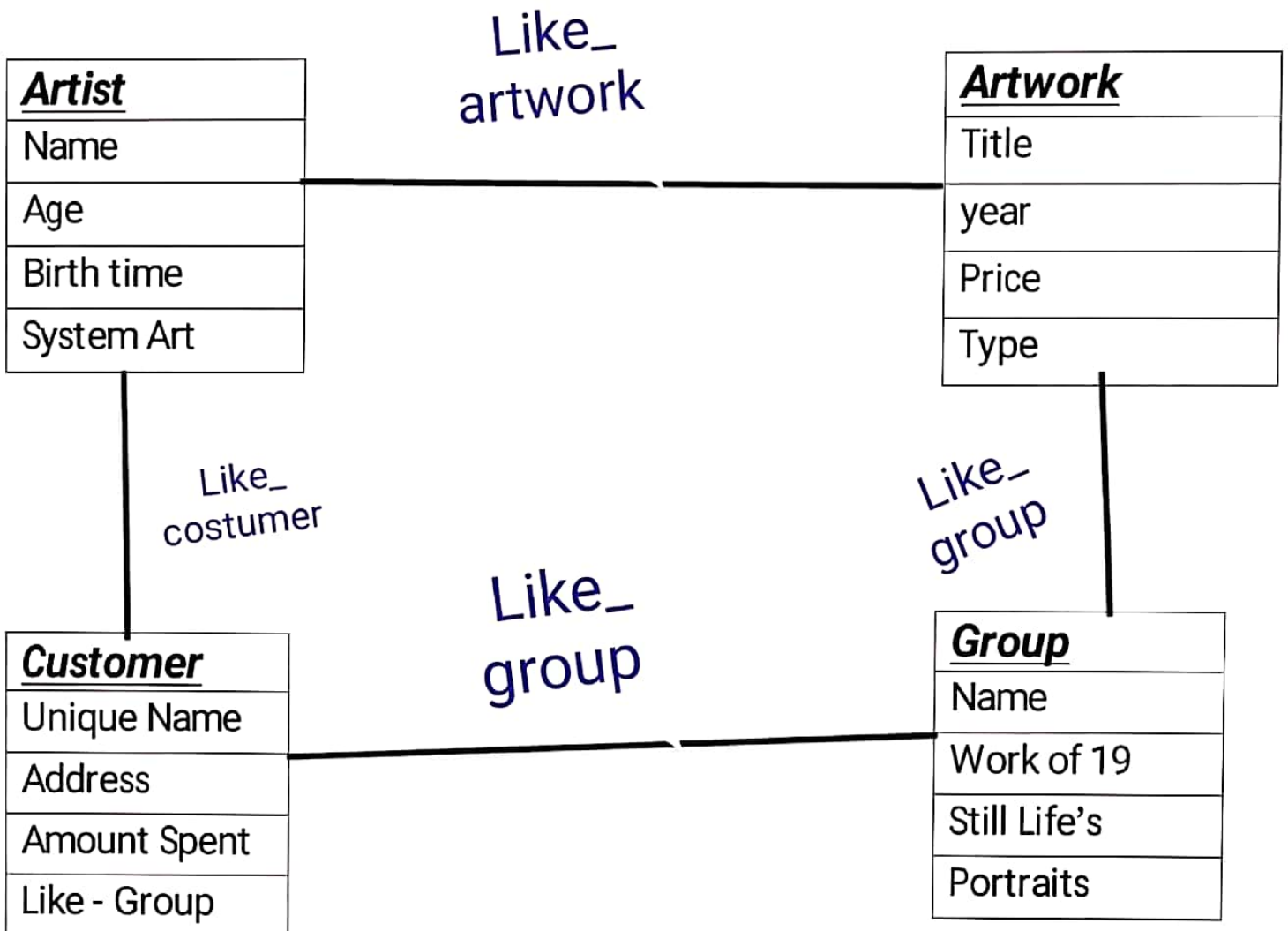
Need for explicit backup and recovery:

A Shared Corporate database must be accurate and available at all times. This requires that comprehensive procedures be developed and used for providing back copies of data and for restoring a data base when damage occurs. This consideration have acquired increased urgency in today's security-conscious environment. A modern database management system normally automates many more of the backup and recovery tasks than a file system. ~~describe~~ ~~procedures~~ for security, backup and recovery.

Question 2

Name - Abdul Aziz

ID 14619



Question 3; Name Abdul aziz

Id 14619

Student

Course

Student id	Student Name	Student Address

Cours e Name	Course number

Set

Class

Set No	Set position

Cours e name	Section number	Num-registor	Class time