

Friday 20/07/23

①

Q Which attribute in the following table is a candidate key? Assume that no more data will ever be added to this table.

ID	Name	Semster	Department	Cell
1	Sania	1	CS	03334324234
2	Romelia	1	CS	03335399123
3	Alina	1	CS	03150034224
4	Ayeza	3	CS	03455559822

Ans:-

CANDIDATE KEY:-

Candidate key is a set of attributes that uniquely identify tuples in a table. Candidate key is a super 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

(2)

Saturday 28

have multiple candidate keys but only a single primary key.

properties of candidate key:-

- 1) It must contain unique values.
- 2) Candidate key may have multiple attributes.
- 3) Must not contain null value.
- 4) It should contain minimum fields to ensure uniqueness.
- 5) Uniquely identify each record in table.

Q What is data Redundancy and Data integrity?

Ans:- Data Redundancy:-

Data redundancy occurs when the same piece of data is stored in two or more separate pieces and is a common occurrence in many businesses.

3

29 Sunday 21/07/15

A more companies are moving away from soloed data to using is a central repository to store information. They are finding ^{that} their database is filled with inconsister duplicate of the same data entnes.

DATA INTEGRITY:-

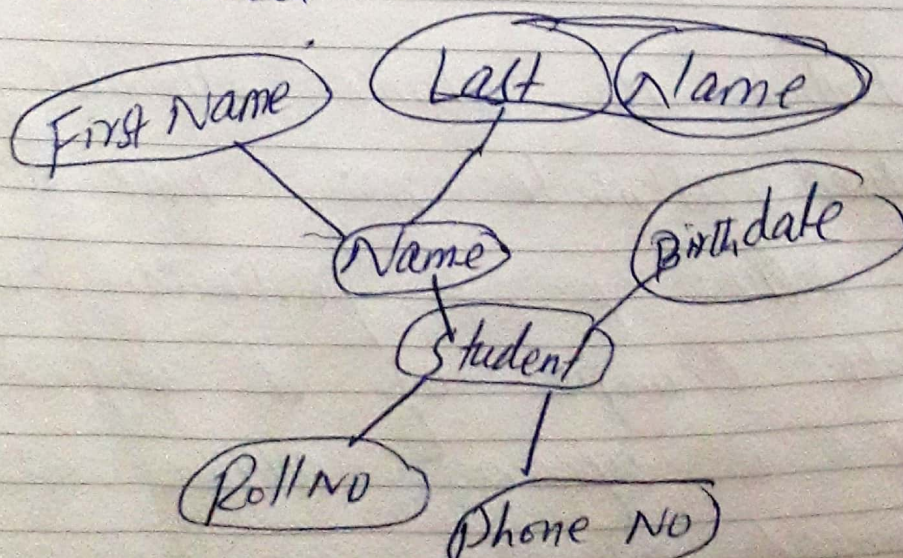
The term data integrity refers to the overall accuracy, completeness and reliability of data. it can be specified by the lack of variation ~~two~~ between two instances of consecutive updates of a record, including that your information is error-free. it also corresponds to the security of data pertaining to regulatory compliance.

③ How a multivalued Composite attribute is represented in Conceptual Model. Show with example -

Ans :-

Multivalued attribute :-

An attribute that can hold multiple a value is known as multivalued attributes. It is represented with double ovals in a ER Diagram. e.g. A person can have more than one phone numbers. So the phone number attributes is multivalued.



31 Tuesday 21/2/153

8.00 am

8.30

9.00

9.30

10.00

10.30

11.00

11.30

Noon

12.30

1.00

1.30

2.00

2.30

3.00

3.30

4.00

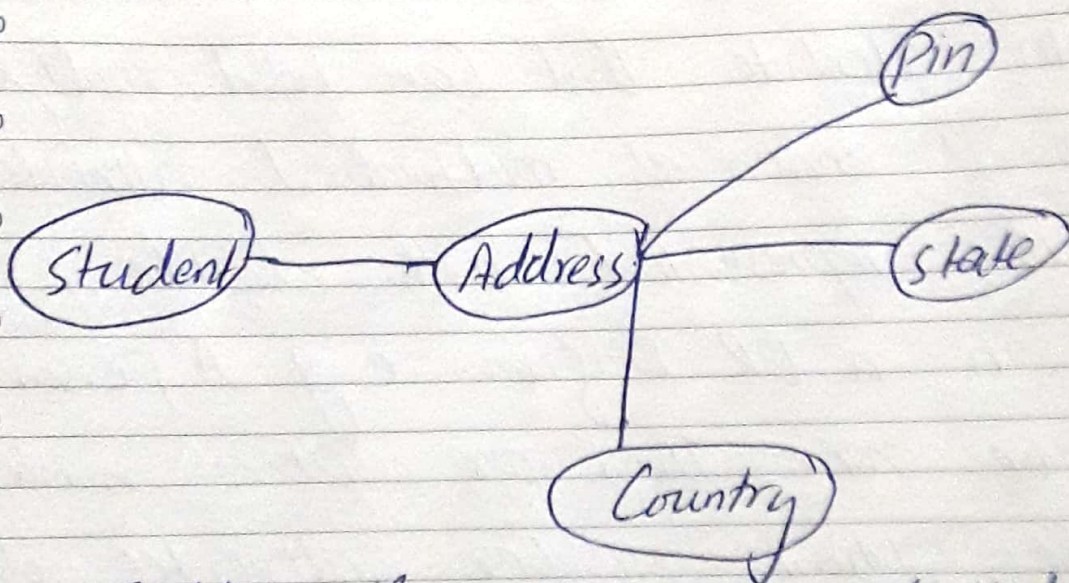
4.30

5.00

6.00 pm

Composite attribute is represented in
conceptual model:

Conceptual Model



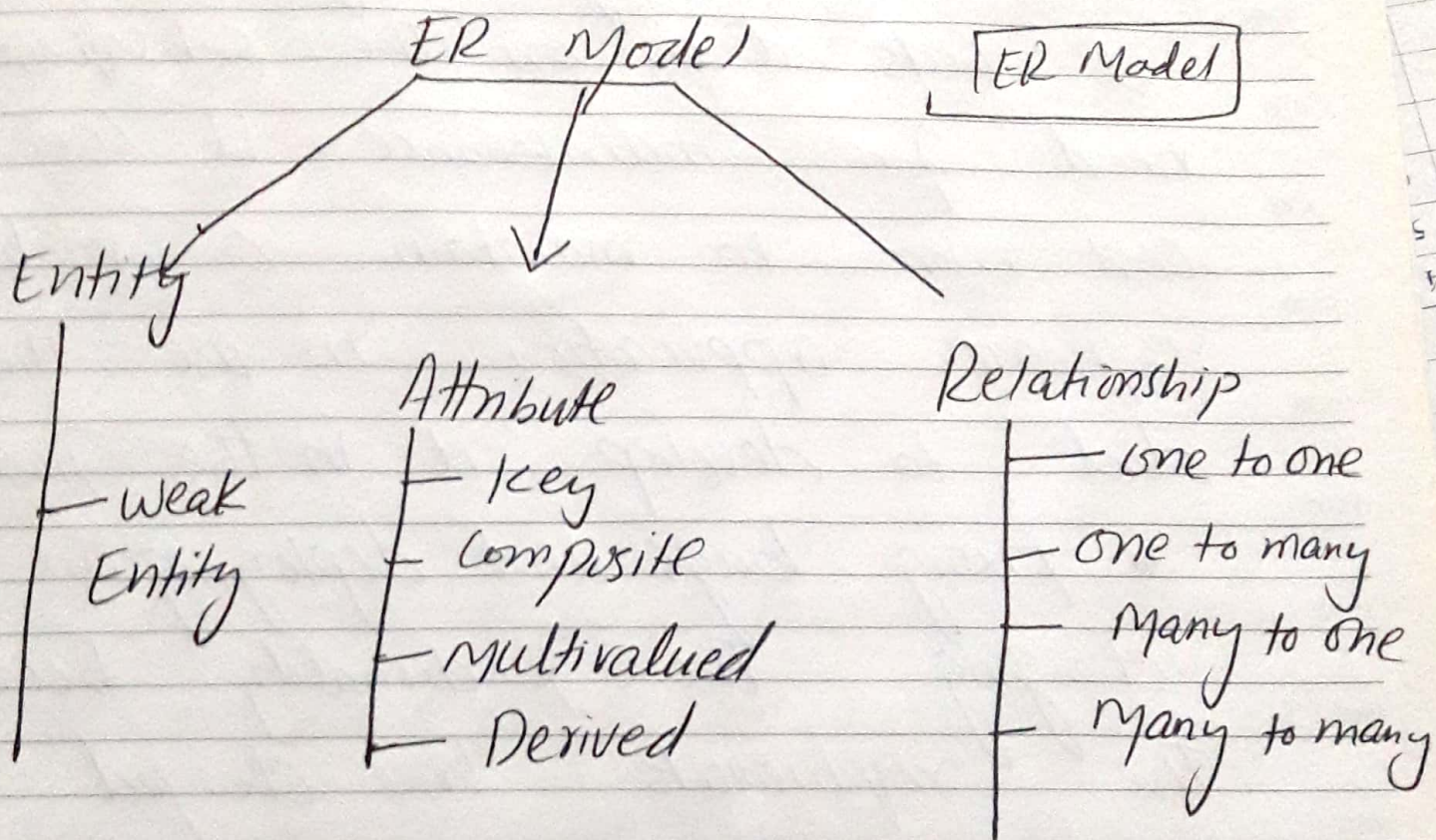
Address is a composite attribute

Most attribute are atomic attributes -
Multivalued attribute may have one
more value for a particular entity
A typical example of a composite
attribute is a person's address, which
is composed of atomic attributes - such as

6

213/152 Wednesday 1

as city, zip and street.



Components of ER Diagram

Q48 How is There "reduced maintainence" in database approach?

Ans: Database ~~system~~ application in a busy corporate setting. yet take considerable time over meticulous database design, extensive constraints automated tests, error logs, and

2 Thursday 21/4/15

8.00 am

8.30

9.00

9.30

10.00

10.30

11.00

11.30

12.00

1.30

3.00

3.30

4.00

4.30

5.00

5.30

6.00

6.30

7.00

7.30

defensive coding. Why? Because it cuts down on the subsequent need for maintenance. It can cost more to maintain a mature software application in use than it did to develop it in the first place.

- fixing bugs and deploying the fixes.
- Changing the functionality because the requirements have changed.
- cleaning up the data.
- speeding up slow queries.

Q Ans

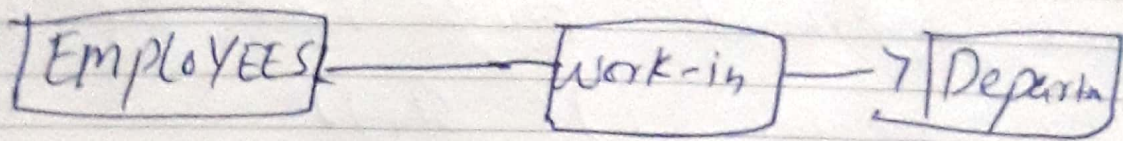
Mandatory one:-

relationship exists when zero or one instance of entity A can be associated with zero or one instance of entity B, and zero

④

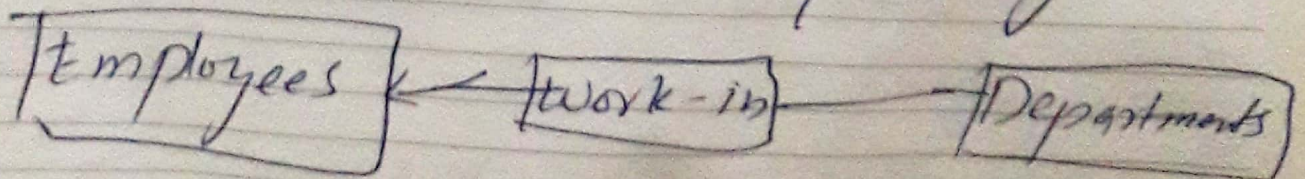
21/5/150 Friday 3

or one instance of entity B can be associated with zero or one instance of entity A.



Mandatory Many :-

In relationship database design, a one to many (1:N) relationship exists when, for one instance 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.



(9)

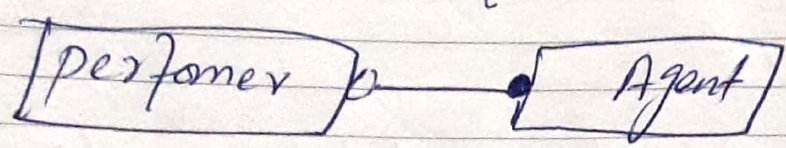
4 Saturday 21/6/19

8.00 am

Optional one:

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

9.00
9.30
10.00
10.30

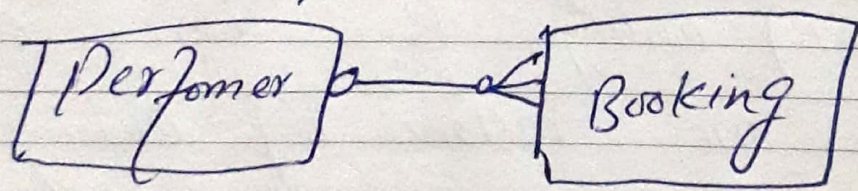


11.00
11.30

Optional many:

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

12.30
1.00
1.30
2.00
2.30
3.00



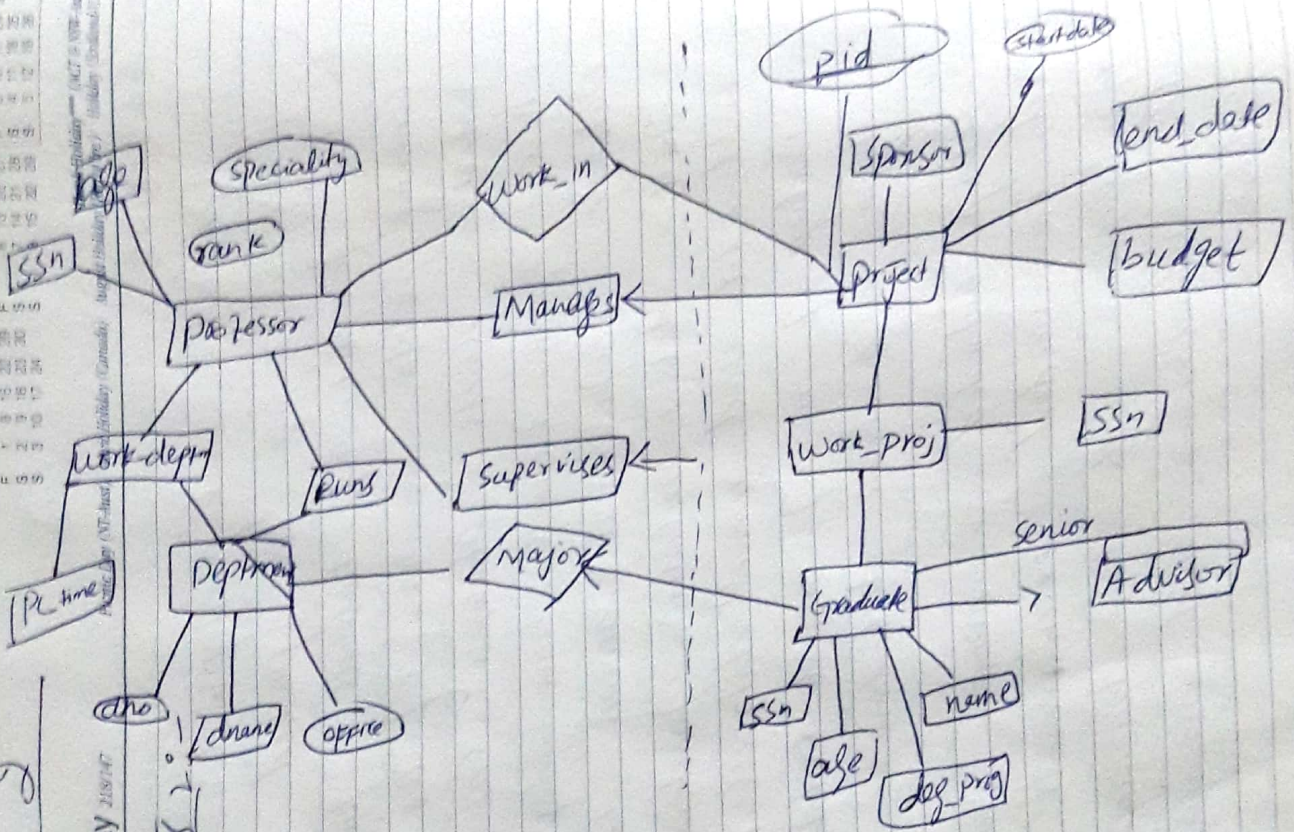
Q6 Ans 6:

DATABASE Backup Approach :-

Digital age has pushed data to the forefront of business functions, cementing data as one of the most valuable assets a business can have. Many businesses have adopted database software as a means to manage their data, including functionality to add, edit and remove data as needed.

- Backup of one of several Database type to a chosen destination.
- set up automated or manual backups at the needed extensiveness.
- integration with other backup and IT infrastructure and management solutions -

August 2018
 Monday 2/8/18
 August 2018
 Monday 2/8/18
 August 2018
 Monday 2/8/18
 August 2018
 Monday 2/8/18



8:00 am Q3 Ans 3 :-

Mapping process

- Create table for weak entity set
- Add all its attributes to table as field.
- Add The primary key of identifying entity set.
- Declare all foreign key constraints.

STUDENT		
Stud - I	S.N	S. Add
1	Sajad	Peshawar
2	Khan	Swat

COURSE	
Course Name	course - NO
BS (SE)	SE 2
BS (CS)	CS 5

SEAT	
Seat No	Seat position
CC 44	6
SE 56	15

CLASS		
Course Name	Section No	No - Reg Date time
BS (SE)	A	5/5/2020
BS (CS)	B	10/5/2020

Name : Syed Ihtisham

ID # 14804

Dept # Software Engineering

Submit to: Rimsha Khan

Subject : Database Management