

What is σ ?

1

What is π ?

2

What is δ ?

3

What is \times ?

4

What is \bowtie ?

5

What is ρ ?

6

What are the three layers of DBMS abstraction?

7

Name three DBMS interface languages

8

The projection operator (selects columns).

The selection operator (selects rows).

2

1

The product operator (produces all permutations of the rows of two tables).

The distinct operator (makes sure no rows are repeated).

4

3

The rename operator (renames column names).

The join operator (natural or otherwise, it joins two tables together based on a column).

6

5

- *DDL: Data Definition Language*
- *DML: Data Manipulation Language*
- *DQL: Data Query Language*

Physical, logical and view

8

7

To select the age column from the people table without duplicates you would do:

```
SELECT [ ] [ ] FROM [ ] ;
```

9

To select all the columns of people who are above 50 you would do:

```
SELECT * FROM [ ] WHERE [ ] ;
```

10

To select all the columns of people who are between 20 and 40 you would do:

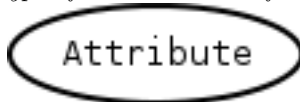
```
SELECT * FROM [ ] WHERE  
[ ] ;
```

11

What are the three main constructs in ER modelling?

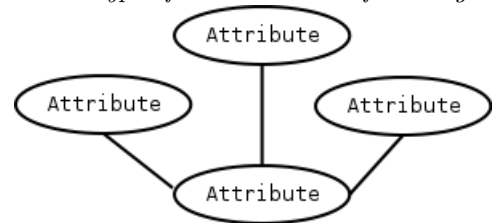
12

What type of attribute is the following?



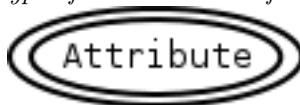
13

What type of attribute is the following?



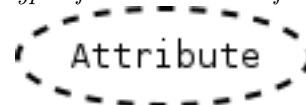
14

What type of attribute is the following?



15

What type of attribute is the following?



16

To select all the columns of people who are above 50 you would do:

*SELECT * FROM people WHERE age > 50;*

10

To select the age column from the people table without duplicates you would do:

SELECT DISTINCT age FROM people;

9

Entity types, attribute types & relationship types.

To select all the columns of people who are between 20 and 40 you would do:

*SELECT * FROM people WHERE age BETWEEN 20 AND 40;*

12

11

Composite attribute

Simple attribute

14

13

Derived attribute

Multi-valued attribute

16

15

What type of entity is the following?

Entity

Weak entity