

Basics of database

Assignment



Yuvraj vaghela

Tops technologies

1. What do you understand By Database ?

Ans.- A database is a collection of organized data that’s stored electronically in a computer system.

* Database can store any type of data including number, words, images, videos and files.
* They are designed to hold large amount of data and allow multiple users to access and query it.

1. What is Normalization?

Ans.- Normalization is the process of organizing data in database.

* There are few types of normalization forms like : 1NF, 2NF and 3NF.

1. What is Difference between DBMS and RDBMS?

Ans.-

|  |  |
| --- | --- |
| DBMS | RDBMS |
| DBMS stores data as file. | RDBMS stores data in tabular form. |
| Normalization is not present. | Normalization is present. |
| DBMS does not support distributed database. | RDBMS supports distributed database. |
| Security is less. | More security measures provided. |
| It supports single user. | It supports multiple users. |
| Examples : XML etc. | Examples : MySQL, SQL etc. |

1. What is MF Cod Rule of RDBMS Systems?

Ans.- Codd’s rules are proposed by a computer scientist named Dr. Edgar F. Codd and he also invent the relational model for database management.

There are 12 MF cod rules of RDBMS systems :

Rule 1: The Information Rule

Rule 2: The Guaranteed Access Rule

Rule 3: Systematic Treatment of NULL Values

Rule 4: Active Online Catalog Rule

Rule 5: The Comprehensive Data Sublanguage Rule

Rule 6: The View Updating Rule

Rule 7: High-level Insert, Update, and Delete

Rule 8: Physical Data Independence

Rule 9: Logical Data Independence

Rule 10: Integrity Independence

Rule 11: Distribution Independence

Rule 12: Non-Subversion Rule

1. What do you understand By Data Redundancy?

Ans.- Data redundancy in DBMS means the repetition of the same data in database.

* Example :

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| stu\_id | name | age | dept\_id | dept\_name | dept\_head |
| 1 | Tony | 18 | 100 | CS | DR.Banner |
| 2 | Steve | 18 | 100 | CS | DR.Banner |

1. What is DDL Interpreter?

Ans.- DDL refers to Data Definition Language.

* DDL Interpreter interprets the DDL statements and records the generated statements in the table containing metadata.

1. What is DML Compiler in SQL?

Ans.- DML stands for Data Manipulation Language.

* DML is a computer programming language used for inserting, deleting and updating data in a database.

1. What is SQL Key Constraints writing an Example of SQL Key Constraints?

Ans.- SQL constraints are used to specify rules for the data in a table.

* There are few commonly used contraints in SQL :
* NOT NULL
* UNIQUE
* PRIMARY KEY
* FOREIGN KEY
* CHECK
* DEFAULT
* CREATE INDEX

1. What is save Point? How to create a save Point write a Query?

Ans.- Savepoint is a command in SQL that is used with the rollback command.

* Query :-

BEGIN TRANSACTION;

UPDATE customers SET address = 'New Address' WHERE id=101;

SAVEPOINT update\_address;

INSERT INTO orders (customer\_id, product\_id) VALUES (101, 21494354);

COMMIT;

1. What is trigger and how to create a Trigger in SQL?

Ans.- Trigger is a special type of stored procedure that automatically runs when an event occurs in the database server.

* Example :

DELIMITER $$

CREATE TRIGGER employee1 AFTER INSERT ON employee FOR EACH ROW

BEGIN

INSERT INTO viewtable(Employee\_ID,First\_name,Last\_name,Salary,Joining\_date,Department,

action\_performed) VALUES(new.Employee\_ID,new.First\_name,new.Last\_name,new.Salary,new.Joining\_ate,

new.Department,'Record inserted');

END