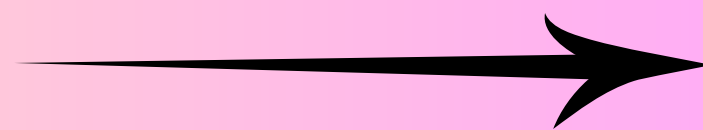


Understand Data Types, Keys, and Constraints

@Vaishnavi Dauale



1. Datatypes

```
INT: 123  
FLOAT: 3.14  
CHAR(n): 'Hello'  
VARCHAR(n): 'World'  
BOOLEAN: TRUE  
DATE: '2024-06-06'  
TIME: '14:30:00'  
DATETIME: '2024-06-06 14:30:00'
```



2. Keys

```
CREATE TABLE table_name (  
    column_name INT PRIMARY KEY NOT NULL,  
    column_name CHAR,  
    column_name CHAR(100)  
);  
  
CREATE TABLE table_name (  
    column2_name INT,  
    FOREIGN KEY (column2_name) REFERENCES table_name(column_name)  
);
```



3. Constraints

- ◆ **NOT NULL:** Makes sure we don't leave any blanks in a column.
- ◆ **CHECK:** Checks if the values in a column follow certain rules.
- ◆ **DEFAULT:** Gives a value to a column if we forget to give one.
- ◆ **UNIQUE:** Ensures that each value in a column is different.
- ◆ **INDEX:** Helps find things faster in our database.
- ◆ **PRIMARY KEY:** Gives each row in a table a unique ID.
- ◆ **FOREIGN KEY:** Connects rows in one table to rows in another table.



3. Constraints

```
CREATE TABLE table_name (  
    id INT PRIMARY KEY,  
    foreign_key_column INT,  
    FOREIGN KEY (foreign_key_column) REFERENCES other_table(id),  
    default_column INT DEFAULT 0,  
    not_null_column INT NOT NULL,  
    unique_column INT UNIQUE,  
    check_column INT CHECK (check_column > 0),  
    auto_increment_column INT AUTO_INCREMENT  
);
```



Questions Asked In Interview

- Explain the difference between a unique constraint and a primary key constraint.
- How can you ensure that a column allows only specific values in SQL?
- What are the advantages and disadvantages of using auto-increment for generating primary keys?
- Can you have a foreign key constraint that references multiple columns in another table? If so, how?



Questions Asked In Interview

- How do you create an auto-incrementing column in SQL?
- Can you have multiple columns as a composite primary key? If yes, how do you define it?
- How do you drop a constraint from a table in SQL?
- What is the purpose of the CASCADE keyword in a foreign key constraint?
- How do you disable or enable a constraint temporarily in SQL?





Thank You

@Vaishnavi Dauale

