SQL Week 8

Topics List

- Using Date
- Performing Calculations
- Commit and Rollback statements
- Insert statement
- Update statement
- Delete statement

SQL Week 8
Using Date

- You can ascertain the current date and/or time from the system in MySQL.

- SELECT curdate() as 'Todays Date'; //returns the current date in the format ‘yyyy-mm-dd’

- SELECT now() as 'Todays Date and Time'; //returns the current date and time in the format ‘yyyy-mm-dd hh:mm:ss’

SQL Week 8

Using Date

- To display the date in a more readable fashion, we can apply the DATE_FORMAT function, which allows you to display the date in whatever format you want using parameters.

- SELECT DATE_FORMAT(curdate(),'%d %b %y') as 'Todays Date'; //returns the current date in the format **day of month (01 to 31)** followed by **abbreviated month name** followed by **2 digit numeric year**

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SQL Week 8

Using Date

Format	Description
%a	Abbreviated week day name (Sun – Sat)
%b	Abbreviated month name (Jan – Dec)
%c	Month, Numeric (1-12)
%d	Day of month, numeric (01 – 31)
%D	Day of month with suffix (1st, 2nd,....)
%e	Day of month, numeric (1 – 31)
%m	Month, numeric (01 – 12)
%M	Month name (January – December)
%W	Week day name (Sunday-Saturday)
%y	Year, numeric, two digits
%Y	Year, numeric, four digits

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SQL Week 8
Performing Calculations

DateDiff()

- DATEDIFF calculates the distance (number of days) between 2 dates.
- SELECT DATEDIFF('2019-01-01', curdate()) as 'Number of Days to 2019';

SQL Week 8
Performing Calculations

- We can use the usual operators to perform calculations:

Operator	Meaning
+	Addition
-	Subtraction
*	Multiplication
/	Division
%	Modulus

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SQL Week 8

Commit and Rollback statements

- The **COMMIT** statement explicitly saves previous commands up until the last *COMMIT* or *ROLLBACK*.

- The **ROLLBACK** command will undo all statements issued since the last *COMMIT* or *ROLLBACK*.

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SQL Week 8

Insert statement

- The **INSERT** statement adds a new record to a table in the database.

- It is possible to write the INSERT INTO statement in two ways.

- The first way specifies both the column names and the values to be inserted:

- INSERT INTO *table_name* (*column1*, *column2*, *column3*, ...)
  VALUES (*value1*, *value2*, *value3*, ...);

SQL Week 8

Insert statement

- If you are adding values for all the columns of the table, you do not need to specify the column names in the SQL query. However, make sure the order of the values is in the same order as the columns in the table. The INSERT INTO syntax would be as follows:
  - INSERT INTO *table_name*
    VALUES (*value1*, *value2*, *value3*, ...);

- **Note:** If you are only inserting values for only a few columns then you must use the first method.

SQL Week 8

Insert statement

- To add a record into the Book table use either of the following statements:

- INSERT INTO Book (ISBN, title, publisher, publishedDate, category, price)
  VALUES ('213345432', 'Beginning XML', 'McGraw Hill', '2010-07-13','Computing', 43.00);

- INSERT INTO Book VALUES ('213345432', 'Beginning XML', 'McGraw Hill', '2010-07-13','Computing', 43.00);

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SQL Week 8
Update statement

- The **UPDATE** statement is used to modify 1 or more records in a table.

- Syntax:
  - UPDATE *table_name*
    SET *column1 = value1*, *column2 = value2*, ...
    WHERE *condition*;

- **Note:** The WHERE clause is optional and if omitted then all records are updated.

SQL Week 8

Update statement

- In this example, we update the price of one of the books identified by its ISBN:

- UPDATE book
  SET price= 45.00
  WHERE ISBN= '213345432‘;

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SQL Week 8
Delete statement

- The **DELETE** statement is used to REMOVE 1 or more records from a table.

- Syntax:
    - DELETE FROM *table_name*
      WHERE *condition*;

- **Note:** Again, the WHERE clause is optional and if omitted then all records are deleted.

SQL Week 8
Delete statement

- In this example, we delete one of the book records identified by its ISBN:

- DELETE FROM book
  WHERE ISBN= '213345432‘;