

Title:

To create, Insert data, update data and delete data in a database using SQL

Intro:

In this lab assignment, we will learn how to perform basic database operations using SQL. The operations include creating a table, inserting data into the table, updating existing data, and deleting data from the table. These are fundamental skills required for managing and manipulating data in any relational database management system (RDBMS).

Code:

Creating a Table:

sql

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```
CREATE TABLE Students (  
    StudentID INT PRIMARY KEY,  
    FirstName VARCHAR(50),  
    LastName VARCHAR(50),  
    Age INT,  
    Major VARCHAR(50)  
);
```

Inserting Data:

sql

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```
INSERT INTO Students (StudentID, FirstName, LastName, Age, Major)  
VALUES  
(1, 'John', 'Doe', 20, 'Computer Science'),  
(2, 'Jane', 'Smith', 22, 'Mathematics'),  
(3, 'Emily', 'Johnson', 21, 'Physics');
```

Updating Data:

sql

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```
UPDATE Students
```

```
SET Age = 23
```

```
WHERE StudentID = 2;
```

Deleting Data:

sql

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```
DELETE FROM Students
```

```
WHERE StudentID = 1;
```

Output:

After Inserting Data:

StudentID	FirstName	LastName	Age	Major
1	John	Doe	20	Computer Science
2	Jane	Smith	22	Mathematics
3	Emily	Johnson	21	Physics

After Updating Data:

StudentID	FirstName	LastName	Age	Major
1	John	Doe	20	Computer Science
2	Jane	Smith	23	Mathematics
3	Emily	Johnson	21	Physics

After Deleting Data:

StudentID	FirstName	LastName	Age	Major
2	Jane	Smith	23	Mathematics
3	Emily	Johnson	21	Physics

Conclusion:

In this lab, we successfully created a table, inserted data into it, updated an existing record, and deleted a record using SQL. These operations are crucial for handling data in any database application, providing a solid foundation for more advanced database management and manipulation tasks.