


MS SQL ALTER TABLE Statement

The `ALTER TABLE` statement is used to **modify** an existing table in the database. You can use it to add, remove, or modify columns, constraints, and other properties of the table.

Syntax

sql

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```
ALTER TABLE table_name action;
```

- `table_name` : The name of the table you want to modify.
- `action` : The change you want to make (e.g., add a column, delete a column, etc.).

Common Actions with ALTER TABLE

1. Add a New Column

To add a new column to an existing table, use the `ADD` keyword. For example, to add a `birthdate` column to the `Students` table:

sql

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```
ALTER TABLE Students  
ADD birthdate DATE;
```

2. Modify an Existing Column

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To change the data type of an existing column, use the `ALTER COLUMN` keyword. For example, to change the `phone_number` column to store longer numbers:

sql


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```
ALTER TABLE Students  
ALTER COLUMN phone_number VARCHAR(20);
```

3. Delete a Column

To remove a column from a table, use the `DROP COLUMN` keyword. For example, to delete the `birthdate` column:

sql


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```
ALTER TABLE Students  
DROP COLUMN birthdate;
```

4. Add a Constraint

You can add constraints (like a primary key or unique constraint) using the `ADD CONSTRAINT` clause. For example, to add a primary key to the `student_id` column:

sql

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```
ALTER TABLE Students  
ADD CONSTRAINT pk_student_id PRIMARY KEY (student_id);
```



Important Points to Remember

1. The `ALTER TABLE` statement allows you to make **changes to the table structure** but does not delete or affect the table's data.
2. Always be careful when removing columns, as this will **delete the data** in that column.
3. Make sure to check for **dependencies** like foreign keys before modifying or deleting columns.

Contact

If you have any questions or need help, feel free to reach out:

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