

Sixth Chapter Lesson-5: Different SQL commands of database.

At the end of this lesson-

- 1. You will be able to write DDL commands of SQL.
- 2. You will be able to write DML commands of SQL.
- 3. You will be able to write DQL commands of SQL.

Data Definition Language (DDL):

Syntax of SQL Command for Creating Database:

```
CREATE DATABASE database_name;
```

SQL Command for creating a database named db_sagc

```
CREATE DATABASE db_sagc;
```

Syntax of SQL Command for Creating Table:

```
CREATE TABLE table_name  
( column_name_1 data_type(size),  
  column_name_2 data_type(size),  
  .....  
  column_name_n data_type(size)  
) ;
```

student_info

Id	Name	Section	GPA	City

SQL command for creating above student_info table-

```
CREATE TABLE student_info  
(  
    Id    number PRIMARY KEY,  
    Name  text(20),  
    Section text(5),  
    GPA   number,  
    City  text(20),  
);
```

Syntax of SQL Command for Adding Field On Table:

```
ALTER TABLE table_name ADD  
(  
    new_column_name_1  data_type(size),  
    new_column_name_2  data_type(size)  
);
```

student_info

Id	Name	Section	GPA	City

SQL Command for adding a field named "Contact" in above student_info table-

```
ALTER TABLE student_info ADD (
```

```
Contact text(25)
);
```

After running the SQL command, the structure of student_info table will be like following table-

student_info

Id	Name	Section	GPA	City	Contact

Syntax of SQL Command for Deleting a Field From Table:

```
ALTER TABLE table_name DROP column_name;
```

student_info

Id	Name	Section	GPA	City

SQL Command for deleting a field named "City" from the above student_info table-

```
ALTER TABLE student_info DROP City;
```

After running the SQL command, the structure of student_info table will be like following table-

student_info

Id	Name	Section	GPA

Syntax of SQL Command for Deleting a Table From Database:

```
DROP TABLE table_name ;
```

SQL Command for Deleting a Table named “student_info” From the Database-

```
DROP TABLE student_info ;
```

Data Manipulation Language (DML):

Syntax of SQL Command for Adding a Record On Table:

```
INSERT INTO table_name (column_name_1, column_name_2, ..)  
VALUES (Value_1, Value_2, ..) ;
```

student_info

Id	Name	Section	GPA	City

SQL Command for adding a record on a “student_info” table –

```
INSERT INTO student_info(Id, Name, Section, GPA, City) VALUES( 1, "Ashek", "A", 5.00, "Dhaka" ) ;
```

After running the SQL command, the student_info table will be like following table-

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka

Syntax of SQL Command for Updating Record of a Table:

```
UPDATE table_name  
SET column_name_1=value, column_name_2=value, ...  
WHERE condition;
```

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
2	Amirul	B	4.00	Jessore
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

SQL command for Updating the value of City field whose Id is 2 –

```
UPDATE student_info SET City="Khulna" WHERE Id = 2;
```

After running the SQL command, the student_info table will be like following table-

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
2	Amirul	B	4.00	Khulna
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

Syntax of SQL Command for Deleting Record from Table:

```
DELETE FROM table_name WHERE condition;
```

SQL Command for deleting the record whose Id is 1 from student_info table-

```
DELETE FROM student_info WHERE Id = 1 ;
```

After running the SQL command, the student_info table will be like following table-

student_info

Id	Name	Section	GPA	City
2	Amirul	B	4.00	Jessore
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

Syntax of SQL command for deleting all the records from a table.

```
DELETE FROM table_name;
```

Data query language (DQL):

Syntax of SQL Command for showing all the fields and records of a table-

```
SELECT * FROM table_name ;
```

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
2	Amirul	B	4.00	Jessore
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

SQL Command for showing all the fields and records from above “student_info” table-

```
SELECT * FROM student_info;
```

After running the SQL command, the output table will be like following table-

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
2	Amirul	B	4.00	Jessore
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

Syntax of SQL Command for showing particular fields and all the records of a table-

```
SELECT column_name_1, column_name_2, .. FROM table_name ;
```

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
2	Amirul	B	4.00	Jessore
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

SQL Command for showing the value of Name,Section and GPA fields from the above “student_info” table-

```
SELECT Name, Section, GPA FROM student_info;
```

After running the SQL command, the output table will be like following table-

Name	Section	GPA
Ashek	A	5.00
Amirul	B	4.00
Shanta	A	5.00
Sondha	C	4.50
Sajid	A	5.00

Syntax of SQL Command for showing particular records of a table under condition –

```
SELECT * FROM table_name WHERE condition ;
```

student_info

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
2	Amirul	B	4.00	Jessore
3	Shanta	A	5.00	Dhaka
4	Sondha	C	4.50	Jamalpur
5	Sajid	A	5.00	Khulna

SQL Command for showing the records whose GPA is 5.00 from the above “student_info” table-

```
SELECT * FROM student_info WHERE GPA=5.00;
```

After running the SQL command, the output table will be like following table-

Id	Name	Section	GPA	City
1	Ashek	A	5.00	Dhaka
3	Shanta	A	5.00	Dhaka
5	Sajid	A	5.00	Khulna

Lesson Evaluation-

Knowledge Based Questions:

Comprehension Based Questions:

Creative Questions:

Multiple Choice Questions: