**Objective**: At the end of this lab session you will get a basic knowledge about the INSERT, UPDATE and DELETE commands. You will be able to INSERT values to the created table, UPDATE values of a table and DELETE values from a table.

# Insert, Update and Delete commands

## Section 1

***INSERT Command:***

The INSERT INTO statement is used to insert new records in a table.

**Syntax for INSERT**

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\_name, column2\_name, ...)  
VALUES (value1, value2...)

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*,...)

***UPDATE Command:***

The UPDATE statement is used to modify the existing records in a table.

**Syntax for UPDATE**

UPDATE <*table\_name>*  
SET <*column1\_name>*=*<value1>*,*<column2\_name>*=*<value2>*,...  
WHERE <*condition>*

**Note:** Be careful when updating records in a table! Notice the WHERE clause in the UPDATE statement. The WHERE clause specifies which record(s) that should be updated. If you omit the WHERE clause, all records in the table will be updated!

***DELETE Command:***

The DELETE statement is used to delete existing records in a table.

**Syntax for DELETE**

DELETE FROM <table\_name>

WHERE <condition>

**Note:** Be careful when deleting records in a table! Notice the WHERE clause in the DELETE statement. The WHERE clause specifies which record(s) should be deleted. If you omit the WHERE clause, all records in the table will be deleted!

## Section 2

1. Insert the following data using INSERT SQL Statement for the tables you created in Lab sheet 8.

*(Hint: Here also you have to consider about the foreign keys, you can insert the values according to the order of table creation. Otherwise you may get errors)*

**Course**

|  |  |  |  |
| --- | --- | --- | --- |
| **CID** | **Cname** | **C\_Description** | **C\_fee** |
| IT | Information Technology | The programme is designed for technically focused students who capabilities in programming | 175000 |
| SE | Software Engineering | Software engineering is the discipline of designing, creating and maintaining | 185000 |
| CSNE | Computer Systems And Network Engineering | The programme aims to provide students with the knowledge, skills, planning, and designing | 155000 |
| DS | Data Scinece | The meticulous curriculum focuses on the fundamentals of computer science, statistics, and applied mathematics | 170000 |

INSERT INTO Course

VALUES ('IT', 'Information Technology', 'The programme is designed for technically focused students who capabilities in programming',175000);

INSERT INTO Course

VALUES ('SE', 'Software Engineering', 'Software engineering is the discipline of designing, creating and maintaining',185000);

INSERT INTO Course

VALUES ('CSNE', 'Computer Systems And Network Engineering', 'The programme aims to provide students with the knowledge, skills, planning, and designing',155000);

INSERT INTO Course

VALUES ('DS','Data Science', 'The meticulous curriculum focuses on the fundamentals of computer science, statistics, and applied mathematics',170000);

**Student**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SID** | **Sname** | **Address** | **Dob** | **NIC** | **CID** |
| CN18384756 | Kamal | No122, Rose street, matale | 1994-05-02 | 946785467v | CSNE |
| DS18234876 | Pubudu | No678 , 3rd new lane, Maharahgama | 1994-11-08 | 948763759v | DS |
| IT18234568 | Ann | No12, Kings street, colombo | 1996-11-11 | 961234587v | IT |
| SE19238567 | Malith | No08, st.thomas street, Kandy | 1992-12-20 | 922356785v | SE |

INSERT INTO Students

VALUES ('CN18384756', 'Kamal', 'No122, Rose street, matale', '1994-05-02', '946785467v', 'CSNE');

INSERT INTO Students

VALUES ('DS18234876', 'Pubudu', 'No678 , 3rd new lane, Maharahgama', '1994-11-08', '948763759v', 'DS');

INSERT INTO Students

VALUES ('IT18234568', 'Ann', 'No12, Kings street, colombo', '1996-11-11', '961234587v', 'IT');

INSERT INTO Students

VALUES ('SE19238567', 'Malith', 'No08, st.thomas street, Kandy','1992-12-20', '922356785v', 'SE');

**Module**

|  |  |  |  |
| --- | --- | --- | --- |
| **Mcode** | **Mname** | **M\_Description** | **NoOfCredits** |
| SE3050 | User Experience Engineering | subject under SE | 3 |
| IT1010 | Introduction to Programming | subject under IT | 4 |
| IT2050 | Computer Networks | subject under IT | 4 |
| IT3051 | Fundamentals of Data Mining | subject under DS | 4 |

INSERT INTO Module

VALUES ('SE3050', 'User Experience Engineering', 'subject under SE', 3);

INSERT INTO Module

VALUES ('IT1010', 'Introduction to Programming', 'subject under IT', 4);

INSERT INTO Module

VALUES ('IT2050', 'Computer Networks', 'subject under IT', 4);

INSERT INTO Module

VALUES ('IT3051', 'Fundamentals of Data Mining', 'subject under DS', 4);

**Offers**

|  |  |  |  |
| --- | --- | --- | --- |
| **CID** | **Mcode** | **Accadamic\_year** | **Semester** |
| SE | SE3050 | Y3 | 2 |
| IT | IT1010 | Y1 | 2 |
| IT | IT2050 | Y2 | 1 |
| DS | IT3051 | Y3 | 2 |

INSERT INTO Offers

VALUES ('SE', 'SE3050', 'Y3', 2);

INSERT INTO Offers

VALUES ('IT', 'IT1010', 'Y1', 2);

INSERT INTO Offers

VALUES ('IT', 'IT2050', 'Y2', 1);

INSERT INTO Offers

VALUES ('DS', 'IT3051', 'Y3', 2);

1. Update the address of Ann as No15,Gamunupura,New Kandy Rd,Malabe

UPDATE Students

SET Address = 'No15,Gamunupura,New Kandy Rd,Malabe'

WHERE SID = 'IT18234568'

1. Remove the ‘User Experience Engineering’ module from the Module table since it is no longer consider as a module of the degree program.

DELETE FROM Module

WHERE Mcode = 'SE3050';