

# Базы данных

Лекция 9

Язык SQL.

DML

# DML

- INSERT
- UPDATE
- DELETE

# INSERT

- Однострочный оператор:

```
INSERT INTO <таблица> [(<список столбцов>)]  
VALUES (<список значений>);
```

Пример:

```
INSERT INTO Student (Number, LastName, FirstName,  
Group, BirthDate, Salary)  
VALUES (1003456, 'Иванов', 'Петр', NULL,  
'01.01.1990', 1300)
```

# INSERT

```
INSERT INTO employee(ID, FirstName,  
LastName, Email, HireDate, Job_ID, Salary,  
CommissionPct, Manager_ID, Department_ID)  
VALUES (113, 'Louis', 'Popp', 'lPopp@gmail.com',  
SYSDATETIME(), 15, 6900, NULL, 205, 110);
```

# INSERT

- Многострочный оператор:  
INSERT INTO <таблица> [(<список столбцов>)]  
оператор SELECT

- Пример:

```
INSERT INTO Sales_reps(ID, Name, Salary,  
Commission_pct)  
SELECT Employee_id, Last_name, Salary,  
Commission_pct  
FROM employee  
WHERE job_id LIKE '%REP%';
```

# UPDATE

- UPDATE <таблица> SET <столбец1> = <значение1> [, ...]  
[WHERE <условие отбора>]

- Примеры:

```
UPDATE Employee  
SET Department_id = 50  
WHERE ID = 113;
```

```
UPDATE Copy_emp  
SET Department_id = 110;
```

# UPDATE

```
UPDATE Employee
SET (Job_id, Salary) =
SELECT (Job_id, Salary
FROM Employee
WHERE ID = 205)
WHERE ID = 103;
```

```
UPDATE Employee
SET Job_id = SELECT Job_id FROM Employee WHERE ID = 205,
Salary = SELECT Salary FROM Employee WHERE ID = 205
WHERE ID = 103;
```

# DELETE

```
DELETE FROM <таблица>  
[WHERE <условие отбора>];
```

- Пример:

```
DELETE FROM Department  
WHERE ID = 123;
```

```
DELETE FROM Copy_emp;
```



# DELETE

```
DELETE FROM Employee  
WHERE Department_ID IN  
(SELECT Department_ID  
FROM Department  
WHERE Name LIKE '%Public%');
```

# TRUNCATE

- TRUNCATE TABLE <table\_name>
- Удаляет все строки из таблицы;
- DDL-оператор
- Быстрее DELETE (не вызываются триггеры и др.).