

SQL part 8. Creating new data. Modifying and deleting existing data.

1. Insert information about three new employees (use *Employees* table).

Information	Value (row 1)	Value (row 2)	Value (row 3)
identifier	300	310	320
name and surname	Jack Snow	Robin Cook	Francis Dormand
job	PROFESSOR	PROFESSOR	ASSISTANT
boss	John Smith	John Smith	Carl Jones
employment date	May 1 st , 2013	September 15 th , 2016	January 1 st . 2018
salary	4 750	3 500	3 900
additional salary		1 250	
department	EXPERT SYSTEMS	ALGORITHMS	ALGORITHMS

Display all information about new employees.

```
emp_id | surname | name | job | boss_id | hire_date | salary | add_salary | dept_id
-----+-----+-----+-----+-----+-----+-----+-----+-----
300 | Snow | Jack | PROFESSOR | 100 | 2013-05-01 | 4750.00 | | 30
310 | Cook | Robin | PROFESSOR | 100 | 2016-09-15 | 3500.00 | 1250.00 | 40
320 | Dormand | Francis | ASSISTANT | 110 | 2018-01-01 | 3900.00 | | 40
```

2. Define a new department DATABASE SYSTEMS. Its identifier should be set to 70, leave address unset. Display all information about new department.

```
dept_id | dept_name | address
-----+-----+-----
70 | DATABASE SYSTEMS | not set
```

3. Move new employees (defined in p. 1.) to department DATABASE SYSTEMS. Then display employees of this department.

```
surname | name | salary | add_salary
-----+-----+-----+-----
Cook | Robin | 3500.00 | 1250.00
Dormand | Francis | 3900.00 | 
Snow | Jack | 4750.00 |
```

4. Give a rise for employees of DATABASE SYSTEMS. Their salaries should be increased by 10%, their additional salaries by 20%. If employee has not an additional salary, set its value to 100. Try make all modifications using one command. Display new values of employees' salaries.

```
surname | name | salary | add_salary
-----+-----+-----+-----
Cook | Robin | 3850.00 | 1500.00
Dormand | Francis | 4290.00 | 100.00
Snow | Jack | 5225.00 | 100.00
```

- Once again give a raise to employees of departments DATABASE SYSTEMS. This time a raise should be equal to 10% of an average salary in department ADMINISTRATION. Display new values of employees' salaries.

SURNAME	NAME	SALARY
Cook	Robin	4217.01
Dormand	Francis	4657.01
Snow	Jack	5592.01

- Try to delete department DATABASE SYSTEMS. Why does this operation finish with error?
- Delete those employees of department DATABASE SYSTEMS who earn less than 5000. Remaining employees of this department leave without department. Use two commands. Next display all employees.

emp_id	surname	name	job	boss_id	hire_date	salary	add_salary	dept_id
100	Smith	John	PRINCIPAL		1968-01-01	4730.00	980.50	10
110	Jones	Carl	PROFESSOR	100	1973-05-01	3350.00	610.00	40
120	Williams	Andrew	PROFESSOR	100	1977-09-01	3070.00		30
130	Wilson	Peter	PROFESSOR	100	1968-07-01	3960.00		20
140	Johnson	Chris	PROFESSOR	130	1975-09-15	3230.00	805.00	20
150	White	Mary	LECTURER	130	1977-09-01	2845.50		20
160	Edwards	Ana	SECRETARY	130	1985-03-01	1590.00		20
170	Green	Ian	ASSISTANT	130	1992-10-01	1839.70	480.50	20
180	Clark	Mark	LECTURER	100	1985-02-20	2610.20		10
190	Lewis	Arnold	ASSISTANT	140	1993-09-01	1971.00		20
200	Wood	Adam	PHD STUDENT	140	1994-07-15	900.00		30
210	Jackson	Peter	PHD STUDENT	130	1993-10-15	900.00	570.60	30
220	Young	Wayne	ASSISTANT	110	1993-10-01	1889.00		20
230	Bell	Tom	ASSISTANT	120	1992-09-01	1850.00	390.00	
300	Snow	Jack	PROFESSOR	100	2013-05-01	5592.01	100.00	

- Once again try to delete department DATABASE SYSTEMS. Next display information about all departments.

dept_id	dept_name	address
10	ADMINISTRATION	GRANT AVE 2
20	DISTRIBUTED SYSTEMS	GRANT AVE 3
30	EXPERT SYSTEMS	47TH STR
40	ALGORITHMS	45TH STR
50	OPERATIONAL RESEARCH	PLAINFIELD ROAD

- Delete employee Jack Snow (the one you have inserted at the beginning). Then display current data of *Employees* table.

emp_id	surname	name	job	boss_id	hire_date	salary	add_salary	dept_id
100	Smith	John	PRINCIPAL		1968-01-01	5097.01	980.50	10
110	Jones	Carl	PROFESSOR	100	1973-05-01	3685.00	610.00	40
120	Williams	Andrew	PROFESSOR	100	1977-09-01	3232.33		30
130	Wilson	Peter	PROFESSOR	100	1968-07-01	4207.50		20
140	Johnson	Chris	PROFESSOR	130	1975-09-15	3477.50	805.00	20
150	White	Mary	LECTURER	130	1977-09-01	3093.00		20
160	Edwards	Ana	SECRETARY	130	1985-03-01	1837.50		20
170	Green	Ian	ASSISTANT	130	1992-10-01	2087.20	480.50	20
180	Clark	Mark	LECTURER	100	1985-02-20	2977.21		10
190	Lewis	Arnold	ASSISTANT	140	1993-09-01	2218.50		20
200	Wood	Adam	PHD STUDENT	140	1994-07-15	1062.33		30
210	Jackson	Peter	PHD STUDENT	130	1993-10-15	1062.33	570.60	30
220	Young	Wayne	ASSISTANT	110	1993-10-01	2136.50		20
230	Bell	Tom	ASSISTANT	120	1992-09-01	1850.00	390.00	