

## Практичне завдання

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1) Створення бази даних та таблиці

2) Вставка та вибірка даних

```
mysql> CREATE DATABASE databazetabl;
Query OK, 1 row affected (0.02 sec)

mysql> USE databazetabl;
Database changed
mysql> CREATE TABLE Studetns ( id INT AUTO_INCREMENT PRIMARY KEY, name VARCHAR(255), course INT, average_grade DECIMAL(3,2));
Query OK, 0 rows affected (0.07 sec)

mysql> INSERT INTO Studetns (name, course, average_grade) VALUES ('Mike', 5,4), ('Maria', 2,3), ('Petro', 4,3), ('Andry', 4,4), ('Olena', 1,3);
ERROR 1146 (42S02): Table 'databazetabl.Studetns' doesn't exist
mysql> show tables
-> ;
+-----+
| Tables_in_databazetabl |
+-----+
| Studetns                |
+-----+
1 row in set (0.00 sec)

mysql> INSERT INTO Studetns (name, course, average_grade) VALUES ('Mike', 5,4), ('Maria', 2,3), ('Petro', 4,3), ('Andry', 4,4), ('Olena', 1,3);
Query OK, 5 rows affected (0.03 sec)
Records: 5 Duplicates: 0 Warnings: 0

mysql> SELECT * FROM Studetns WHERE course = 2;
+----+-----+-----+-----+
| id | name  | course | average_grade |
+----+-----+-----+-----+
|  2 | Maria |      2 |          3.00 |
+----+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```

### 3) Модифікація даних

```
mysql> UPDATE Studetns SET average_grade = average_grade + 0.5;  
Query OK, 5 rows affected (0.01 sec)  
Rows matched: 5  Changed: 5  Warnings: 0
```

```
mysql> SELECT * FROM Studetns;
```

id	name	course	average_grade
1	Mike	5	4.50
2	Maria	2	3.50
3	Petro	4	3.50
4	Andry	4	4.50
5	Olena	1	3.50

```
5 rows in set (0.00 sec)
```

```
mysql> UPDATE Studetns SET name = 'Oleg' WHERE course = 5;  
Query OK, 1 row affected (0.01 sec)  
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> SELECT * FROM Studetns;
```

id	name	course	average_grade
1	Oleg	5	4.50
2	Maria	2	3.50
3	Petro	4	3.50
4	Andry	4	4.50
5	Olena	1	3.50

```
5 rows in set (0.00 sec)
```

```
mysql>
```

### 4) Використання транзакцій

```
mysql> START TRANSACTION;
Query OK, 0 rows affected (0.00 sec)

mysql> DELETE FROM Studetns WHERE average_grade < 3.0;
Query OK, 0 rows affected (0.00 sec)

mysql> INCERT INTO Studetns (name, course, average_grade) VALUES ('Oleksiy Kovalenko', 1, 4.2);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your
MySQL server version for the right syntax to use near 'INCERT INTO Studetns (name, course, average_g
rade) VALUES ('Oleksiy Kovalenko', ' at line 1
mysql> INSERT INTO Studetns (name, course, average_grade) VALUES ('Oleksiy Kovalenko', 1, 4.2);
Query OK, 1 row affected (0.00 sec)

mysql> COMMIT;
Query OK, 0 rows affected (0.01 sec)

mysql> SELECT * FROM Studetns;
+-----+-----+-----+-----+
| id | name           | course | average_grade |
+-----+-----+-----+-----+
| 1 | Oleg           | 5      | 4.50          |
| 2 | Maria          | 2      | 3.50          |
| 3 | Petro          | 4      | 3.50          |
| 4 | Andry          | 4      | 4.50          |
| 5 | Olena          | 1      | 3.50          |
| 6 | Oleksiy Kovalenko | 1      | 4.20          |
+-----+-----+-----+-----+
6 rows in set (0.00 sec)

mysql>
```

## 5) Запити та фільтрація

```
mysql> SELECT * FROM Studetns WHERE course = 1 AND average_grade > 3.0;
```

id	name	course	average_grade
5	Olena	1	3.50
6	Oleksiy Kovalenko	1	4.20

2 rows in set (0.00 sec)

```
mysql> _
```

```
mysql> SELECT course, COUNT(*) AS student_count FROM Studetns GROUP BY course;
```

course	student_count
5	1
2	1
4	2
1	2

4 rows in set (0.01 sec)

```
mysql>
```

```
mysql> DROP TABLE IF EXISTS Students;
Query OK, 0 rows affected, 1 warning (0.01 sec)

mysql> DROP DATABASE IF EXISTS databasepztab1;
Query OK, 1 row affected (0.06 sec)

mysql>
```