# DA _ SQL TASK- 1

```
mysql> use stud1;
Database changed
mysql> -- 1. Create Students table
mysql> CREATE TABLE Students (
    ->     StudentID INT,
    ->     Name VARCHAR(100),
    ->     Grade VARCHAR(5),
    ->     Age INT
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> -- 2. Add Email column
mysql> ALTER TABLE Students
    -> ADD Email VARCHAR(100);
Query OK, 0 rows affected (0.05 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
mysql> -- 3. Remove Grade column
mysql> ALTER TABLE Students
    -> DROP COLUMN Grade;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
mysql> -- 4. Change Age data type to VARCHAR(3)
mysql> ALTER TABLE Students
    -> ALTER COLUMN Age TYPE VARCHAR(3);
```

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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 'TYPE VARCHAR(3)' at line 2
mysql>
mysql> -- 5. Rename Students to StudentDetails
mysql> ALTER TABLE Students
   -> RENAME TO StudentDetails;
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> -- 6. Delete all records from StudentDetails
mysql> DELETE FROM StudentDetails;
Query OK, 0 rows affected (0.00 sec)

mysql>
mysql> -- 7. Create Employees table
mysql> CREATE TABLE Employees (
   ->     EmpID INT,
   ->     EmpName VARCHAR(100),
   ->     EmpSalary DECIMAL(10, 2)
   -> );
Query OK, 0 rows affected (0.01 sec)

mysql>
mysql> -- 8. Add Department column
mysql> ALTER TABLE Employees
   -> ADD Department VARCHAR(100);
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql>
mysql> -- 9. Drop Employees table
```

```
mysql> DROP TABLE Employees;
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql> -- 10. Create Books table
mysql> CREATE TABLE Books (
    ->     BookID INT PRIMARY KEY,
    ->     Title VARCHAR(255),
    ->     Author VARCHAR(255),
    ->     PublishedYear INT
    -> );
Query OK, 0 rows affected (0.02 sec)

mysql>
mysql>
mysql> -- 11. Insert single record into Books
mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear)VALUES (1, 'Sample Book', 'John Doe', 2020);
Query OK, 1 row affected (0.01 sec)

mysql>
mysql> -- 12. Insert 10 records into Books
mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (2, 'Book A', 'Author A', 2019);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (3, 'Book B', 'Author B', 2018);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (4, 'Book C', 'Author C', 2017);
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Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (5, 'Book D', 'Author D', 2021);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (6, 'Book E', 'Author E', 2022);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (7, 'Book F', 'Author F', 2020);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (8, 'Book G', 'Author G', 2016);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (9, 'Book H', 'Author H', 2015);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (10, 'Book I', 'Author I', 2013);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Books (BookID, Title, Author, PublishedYear) VALUES (11, 'Book J', 'Author J', 2011);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> -- 13. Retrieve all records
mysql> SELECT * FROM Books;
```

```
+--------+-------------+----------+---------------+
| BookID | Title       | Author   | PublishedYear |
+--------+-------------+----------+---------------+
|      1 | Sample Book | John Doe |          2020 |
|      2 | Book A      | Author A |          2019 |
|      3 | Book B      | Author B |          2018 |
|      4 | Book C      | Author C |          2017 |
|      5 | Book D      | Author D |          2021 |
|      6 | Book E      | Author E |          2022 |
|      7 | Book F      | Author F |          2020 |
|      8 | Book G      | Author G |          2016 |
|      9 | Book H      | Author H |          2015 |
|     10 | Book I      | Author I |          2013 |
|     11 | Book J      | Author J |          2011 |
+--------+-------------+----------+---------------+
11 rows in set (0.00 sec)

mysql>
mysql> -- 14. Select Title and Author
mysql> SELECT Title, Author FROM Books;
+-------------+----------+
| Title       | Author   |
+-------------+----------+
| Sample Book | John Doe |
| Book A      | Author A |
| Book B      | Author B |
| Book C      | Author C |
| Book D      | Author D |
| Book E      | Author E |
| Book F      | Author F |
| Book G      | Author G |
```

```
| Book H      | Author H |
| Book I      | Author I |
| Book J      | Author J |
+-------------+----------+
11 rows in set (0.00 sec)

mysql>
mysql> -- 15. Update Author where BookID = 1
mysql> UPDATE Books
    -> SET Author = 'Updated Author'
    -> WHERE BookID = 1;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> -- 16. Delete record where BookID = 2
mysql> DELETE FROM Books
    -> WHERE BookID = 2;
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> -- 17. Create employees table
mysql> CREATE TABLE employees (
    ->     employee_id INT PRIMARY KEY,
    ->     first_name VARCHAR(50),
    ->     last_name VARCHAR(50),
    ->     age INT,
    ->     department VARCHAR(50),
    ->     salary DECIMAL(10, 2)
    -> );
Query OK, 0 rows affected (0.02 sec)
```

```
mysql>
mysql> -- 18. Insert employee John
mysql> INSERT INTO employees (employee_id, first_name, last_name, age, department, salary)
    -> VALUES (1, 'John', 'Doe', 30, 'HR', 50000.00);
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> -- 19. Insert two employees
mysql> INSERT INTO employees (employee_id, first_name, last_name, age, department, salary)
    -> VALUES (2, 'Jane', 'Smith', 25, 'Finance', 60000.00),
    ->        (3, 'Alice', 'Johnson', 28, 'IT', 70000.00);
Query OK, 2 rows affected (0.00 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql>
mysql> -- 20. Retrieve all records
mysql> SELECT * FROM employees;
+-------------+------------+-----------+------+------------+----------+
| employee_id | first_name | last_name | age  | department | salary   |
+-------------+------------+-----------+------+------------+----------+
|           1 | John       | Doe       |   30 | HR         | 50000.00 |
|           2 | Jane       | Smith     |   25 | Finance    | 60000.00 |
|           3 | Alice      | Johnson   |   28 | IT         | 70000.00 |
+-------------+------------+-----------+------+------------+----------+
3 rows in set (0.00 sec)

mysql>
mysql> -- 21. Update salary of employee_id = 2
mysql> UPDATE employees
    -> SET salary = 65000.00
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```
   -> WHERE employee_id = 2;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>
mysql> -- 22. Delete employee with employee_id = 3
mysql> DELETE FROM employees
   -> WHERE employee_id = 3;
Query OK, 1 row affected (0.00 sec)

mysql>
mysql> -- 23. Insert two new employees
mysql> INSERT INTO employees (employee_id, first_name, last_name, age, department, salary)
   -> VALUES (4, 'Michael', 'Taylor', 35, 'Sales', 75000.00),
   ->        (5, 'Emily', 'Davis', 40, 'Marketing', 80000.00);
Query OK, 2 rows affected (0.00 sec)
Records: 2  Duplicates: 0  Warnings: 0
```