

## Assignment No. 4

- Create Teacher table with the given fields

```
mysql> USE university;
Database changed
mysql> CREATE TABLE Teacher (
  ->   Job_Id VARCHAR(5),
  ->   Name VARCHAR(50),
  ->   DeptNo INT,
  ->   Joining_Date DATE NOT NULL,
  ->   DeptName VARCHAR(50),
  ->   Location VARCHAR(50),
  ->   Salary DECIMAL(10, 2),
  ->   PRIMARY KEY (Job_Id)
  -> );
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> -- (a) Insert ten records
mysql> INSERT INTO Teacher (Job_Id, Name, DeptNo, Joining_Date, DeptName, Location, Salary)
  -> VALUES
  -> ('J001', 'John Doe', 101, '2022-01-15', 'Mathematics', 'New York', 50000),
  -> ('J002', 'Jane Smith', 102, '2022-02-20', 'Physics', 'Los Angeles', 55000),
  -> ('J003', 'Michael Johnson', 103, '2022-03-25', 'Chemistry', 'Chicago', 60000),
  -> ('J004', 'Emily Brown', 104, '2022-04-30', 'Biology', 'Houston', 52000),
  -> ('J005', 'William Davis', 105, '2022-05-05', 'History', 'Philadelphia', 48000),
  -> ('J006', 'Sarah Wilson', 106, '2022-06-10', 'English', 'Phoenix', 51000),
  -> ('J007', 'James Martinez', 107, '2022-07-15', 'Commerce', 'San Antonio', 53000),
  -> ('J008', 'Emma Anderson', 108, '2022-08-20', 'Geography', 'San Diego', 54000),
  -> ('J009', 'Daniel Taylor', 109, '2022-09-25', 'Computer Science', 'Dallas', 56000),
  -> ('J010', 'Olivia Garcia', 110, '2022-10-30', 'Economics', 'San Francisco', 57000);
Query OK, 10 rows affected (0.00 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT * FROM Teacher;
+-----+-----+-----+-----+-----+-----+-----+
| Job_Id | Name           | DeptNo | Joining_Date | DeptName       | Location       | Salary   |
+-----+-----+-----+-----+-----+-----+-----+
| J001   | John Doe       | 101    | 2022-01-15   | Mathematics    | New York       | 50000.00 |
| J002   | Jane Smith     | 102    | 2022-02-20   | Physics        | Los Angeles    | 55000.00 |
| J003   | Michael Johnson | 103    | 2022-03-25   | Chemistry      | Chicago        | 60000.00 |
| J004   | Emily Brown    | 104    | 2022-04-30   | Biology        | Houston        | 52000.00 |
| J005   | William Davis  | 105    | 2022-05-05   | History        | Philadelphia    | 48000.00 |
| J006   | Sarah Wilson   | 106    | 2022-06-10   | English        | Phoenix        | 51000.00 |
| J007   | James Martinez | 107    | 2022-07-15   | Commerce       | San Antonio    | 53000.00 |
| J008   | Emma Anderson  | 108    | 2022-08-20   | Geography      | San Diego      | 54000.00 |
| J009   | Daniel Taylor  | 109    | 2022-09-25   | Computer Science | Dallas         | 56000.00 |
| J010   | Olivia Garcia  | 110    | 2022-10-30   | Economics      | San Francisco  | 57000.00 |
+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

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

```
mysql> -- (b) Give Increment of 25% salary for Mathematics Department
mysql> UPDATE Teacher SET Salary = Salary * 1.25 WHERE DeptName = 'Mathematics';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> SELECT * FROM Teacher;
+-----+-----+-----+-----+-----+-----+-----+
| Job_Id | Name           | DeptNo | Joining_Date | DeptName       | Location       | Salary   |
+-----+-----+-----+-----+-----+-----+-----+
| J001   | John Doe       | 101    | 2022-01-15   | Mathematics    | New York       | 62500.00 |
| J002   | Jane Smith     | 102    | 2022-02-20   | Physics        | Los Angeles    | 55000.00 |
| J003   | Michael Johnson | 103    | 2022-03-25   | Chemistry      | Chicago        | 60000.00 |
| J004   | Emily Brown    | 104    | 2022-04-30   | Biology        | Houston        | 52000.00 |
| J005   | William Davis  | 105    | 2022-05-05   | History        | Philadelphia    | 48000.00 |
| J006   | Sarah Wilson   | 106    | 2022-06-10   | English        | Phoenix        | 51000.00 |
| J007   | James Martinez | 107    | 2022-07-15   | Commerce       | San Antonio    | 53000.00 |
| J008   | Emma Anderson  | 108    | 2022-08-20   | Geography      | San Diego      | 54000.00 |
| J009   | Daniel Taylor  | 109    | 2022-09-25   | Computer Science | Dallas         | 56000.00 |
| J010   | Olivia Garcia  | 110    | 2022-10-30   | Economics      | San Francisco  | 57000.00 |
+-----+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

```
mysql> -- (c) Rollback command
mysql> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> SELECT * FROM Teacher;
```

Job_Id	Name	DeptNo	Joining_Date	DeptName	Location	Salary
J001	John Doe	101	2022-01-15	Mathematics	New York	62500.00
J002	Jane Smith	102	2022-02-20	Physics	Los Angeles	55000.00
J003	Michael Johnson	103	2022-03-25	Chemistry	Chicago	60000.00
J004	Emily Brown	104	2022-04-30	Biology	Houston	52000.00
J005	William Davis	105	2022-05-05	History	Philadelphia	48000.00
J006	Sarah Wilson	106	2022-06-10	English	Phoenix	51000.00
J007	James Martinez	107	2022-07-15	Commerce	San Antonio	53000.00
J008	Emma Anderson	108	2022-08-20	Geography	San Diego	54000.00
J009	Daniel Taylor	109	2022-09-25	Computer Science	Dallas	56000.00
J010	Olivia Garcia	110	2022-10-30	Economics	San Francisco	57000.00

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

```
mysql> -- (d) Give Increment of 15% salary for Commerce Department
mysql> UPDATE Teacher SET Salary = Salary * 1.15 WHERE DeptName = 'Commerce';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> SELECT * FROM Teacher;
```

Job_Id	Name	DeptNo	Joining_Date	DeptName	Location	Salary
J001	John Doe	101	2022-01-15	Mathematics	New York	62500.00
J002	Jane Smith	102	2022-02-20	Physics	Los Angeles	55000.00
J003	Michael Johnson	103	2022-03-25	Chemistry	Chicago	60000.00
J004	Emily Brown	104	2022-04-30	Biology	Houston	52000.00
J005	William Davis	105	2022-05-05	History	Philadelphia	48000.00
J006	Sarah Wilson	106	2022-06-10	English	Phoenix	51000.00
J007	James Martinez	107	2022-07-15	Commerce	San Antonio	60950.00
J008	Emma Anderson	108	2022-08-20	Geography	San Diego	54000.00
J009	Daniel Taylor	109	2022-09-25	Computer Science	Dallas	56000.00
J010	Olivia Garcia	110	2022-10-30	Economics	San Francisco	57000.00

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

```
mysql> -- (e) Commit command
mysql> COMMIT;
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> -- (f) Add the constraint not null on the Date of Joining
mysql> ALTER TABLE Teacher MODIFY Joining_Date DATE NOT NULL;
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> DESC Teacher;
```

Field	Type	Null	Key	Default	Extra
Job_Id	varchar(5)	NO	PRI	NULL	
Name	varchar(50)	YES		NULL	
DeptNo	int	YES		NULL	
Joining_Date	date	NO		NULL	
DeptName	varchar(50)	YES		NULL	
Location	varchar(50)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	

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

```
mysql> -- (g) Change the datatype of JOB_ID from char to varchar
mysql> ALTER TABLE Teacher MODIFY Job_Id VARCHAR(10);
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> -- (h) Add a new column; HIREDATE to the existing relation and add the constraint not null on it
mysql> ALTER TABLE Teacher ADD HIREDATE DATE NOT NULL DEFAULT '2024-04-16';
Query OK, 0 rows affected (0.01 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> DESC Teacher;
```

Field	Type	Null	Key	Default	Extra
Job_Id	varchar(10)	NO	PRI	NULL	
Name	varchar(50)	YES		NULL	
DeptNo	int	YES		NULL	
Joining_Date	date	NO		NULL	
DeptName	varchar(50)	YES		NULL	
Location	varchar(50)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	
HIREDATE	date	NO		2024-04-16	

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

```
mysql> -- (i) Modify the column width of the job field/DeptName of Teacher table
```

```
mysql> ALTER TABLE Teacher MODIFY DeptName VARCHAR(100);
```

```
Query OK, 10 rows affected (0.02 sec)
```

```
Records: 10 Duplicates: 0 Warnings: 0
```

```
mysql> -- (j) Delete the record of the commerce department
```

```
mysql> DELETE FROM Teacher WHERE DeptName = 'Commerce';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
mysql> SELECT * FROM Teacher;
```

Job_Id	Name	DeptNo	Joining_Date	DeptName	Location	Salary	HIREDATE
J001	John Doe	101	2022-01-15	Mathematics	New York	62500.00	2024-04-16
J002	Jane Smith	102	2022-02-20	Physics	Los Angeles	55000.00	2024-04-16
J003	Michael Johnson	103	2022-03-25	Chemistry	Chicago	60000.00	2024-04-16
J004	Emily Brown	104	2022-04-30	Biology	Houston	52000.00	2024-04-16
J005	William Davis	105	2022-05-05	History	Philadelphia	48000.00	2024-04-16
J006	Sarah Wilson	106	2022-06-10	English	Phoenix	51000.00	2024-04-16
J008	Emma Anderson	108	2022-08-20	Geography	San Diego	54000.00	2024-04-16
J009	Daniel Taylor	109	2022-09-25	Computer Science	Dallas	56000.00	2024-04-16
J010	Olivia Garcia	110	2022-10-30	Economics	San Francisco	57000.00	2024-04-16

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