Assignment No. 4

• Create Teacher table with the given fields

```
mysql>
                (a) Insert ten records
mysql> INSERT INTO Teacher (Job_Id, Name, DeptNo, Joining_Date, DeptName, Location, Salary)
       -> VALUES
                         'John Doe', 101, '2022-01-15', 'Mathematics', 'New York', 50000),
'Jane Smith', 102, '2022-02-20', 'Physics', 'Los Angeles', 55000),
'Michael Johnson', 103, '2022-03-25', 'Chemistry', 'Chicago', 60000),
'Emily Brown', 104, '2022-04-30', 'Biology', 'Houston', 52000),
'William Davis', 105, '2022-05-05', 'History', 'Philadelphia', 48000),
'Sarah Wilson', 106, '2022-06-10', 'English', 'Phoenix', 51000),
'James Martinez', 107, '2022-07-15', 'Commerce', 'San Antonio', 53000),
'Emma Anderson', 108, '2022-08-20', 'Geography', 'San Diego', 54000),
'Daniel Taylor', 109, '2022-09-25', 'Computer Science', 'Dallas', 56000),
'Olivia Garcia', 110, '2022-10-30', 'Economics', 'San Francisco', 57000);
ws affected (0.00 sec)
       -> ('J001', -> ('J002',
           ('J003',
           ('J004',
('J005',
mysql> SELECT * FROM Teacher;
  Job_Id | Name
                                             | DeptNo | Joining_Date | DeptName
                                                                                                                    Location
                                                                                                                                                 Salarv
   J001
                  John Doe
                                                     101
                                                               2022-01-15
                                                                                        Mathematics
                                                                                                                       New York
                                                                                                                                                  50000.00
                  Jane Smith
                                                               2022-02-20
                                                                                                                       Los Angeles
   J002
                                                     102
                                                                                        Physics
                                                                                                                                                  55000.00
                  Michael Johnson
                                                                                                                                                  60000.00
                                                               2022-03-25
                                                                                        Chemistry
   J003
                                                     103
                                                                                                                       Chicago
                                                                                       Biology
   .7004
                                                               2022-04-30
                                                                                                                                                  52000.00
                  Emily Brown
                                                     104
                                                                                                                       Houston
                                                                                        History
    J005
                  William Davis
                                                     105
                                                               2022-05-05
                                                                                                                       Philadelphia
                                                                                                                                                  48000.00
   J006
                  Sarah Wilson
                                                     106
                                                               2022-06-10
                                                                                        English
                                                                                                                       Phoenix
                                                                                                                                                  51000.00
   J007
                  James Martinez
                                                               2022-07-15
                                                                                                                                                  53000.00
                                                     107
                                                                                                                       San Antonio
                                                                                        Commerce
   3008
                  Emma Anderson
                                                     108
                                                               2022-08-20
                                                                                        Geography
                                                                                                                       San Diego
                                                                                                                                                  54000.00
    J009
                  Daniel Taylor
                                                     109
                                                               2022-09-25
                                                                                        Computer Science
                                                                                                                       Dallas
                                                                                                                                                  56000.00
                  Olivia Garcia
                                                               2022-10-30
   J010
                                                     110
                                                                                        Economics
                                                                                                                       San Francisco
                                                                                                                                                  57000.00
10 rows in set (0.00 sec)
mvsal> COMMIT:
Query OK, 0 rows affected (0.00 sec)
```

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

salary for

```
mysql> -- (c) Rollback command mysql> ROLLBACK;
Query OK, 0 rows affected (0.00 sec)
mysql> SELECT * FROM Teacher;
                             | DeptNo |
                                                                                               Salary
 Job_Id
           Name
                                         Joining_Date |
                                                         DeptName
                                                                            Location
                                                                                                62500.00
           John Doe
                                         2022-01-15
                                                         Mathematics
                                                                              New York
                                                                              Los Angeles
  J002
            Jane Smith
                                   102
                                         2022-02-20
                                                         Physics
                                                                                                55000.00
           Michael Johnson
                                                         Chemistry
                                                                                                60000.00
 .1003
                                         2022-03-25
                                   103
                                                                              Chicago
  J004
           Emily Brown
                                   104
                                         2022-04-30
                                                         Biology
                                                                              Houston
                                                                                                52000.00
           William Davis
                                         2022-05-05
                                                                              Philadelphia
                                                                                                48000.00
  J005
                                   105
                                                         History
                                                         English
 J006
           Sarah Wilson
                                         2022-06-10
                                                                              Phoenix
                                                                                                51000.00
                                   106
  J007
           James Martinez
                                   107
                                         2022-07-15
                                                         Commerce
                                                                              San Antonio
                                                                                                53000.00
  J008
           Emma Anderson
                                   108
                                         2022-08-20
                                                          Geography
                                                                              San Diego
                                                                                                54000.00
                                                         Computer Science
                                         2022-09-25
 J009
           Daniel Taylor
                                   109
                                                                              Dallas
                                                                                                56000.00
           Olivia Garcia
                                         2022-10-30
 .7010
                                  110
                                                         Economics
                                                                              San Francisco
                                                                                               57000.00
10 rows in set (0.00 sec)
```

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

```
- (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
                                 | Null |
                                         Key
                                                Default | Extra |
                 Type
  Job_Id
                 varchar(5)
                                  NO
                                                NULL
                  varchar(50)
                                  YES
                                                NULL
  Name
                                  YES
                                                NULL
  DeptNo
                 int
  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	Туре	Null	Key	Default	Extra
Job_Id Name DeptNo Joining_Date DeptName Location Salary HIREDATE	varchar(10) varchar(50) int date varchar(50) varchar(50) decimal(10,2) date	NO YES YES NO YES YES YES	PRI	NULL NULL NULL NULL NULL NULL NULL 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 J002 J003 J004 J005 J006 J008 J009	John Doe Jane Smith Michael Johnson Emily Brown William Davis Sarah Wilson Emma Anderson Daniel Taylor Olivia Garcia	101 102 103 104 105 106 108 109	2022-01-15 2022-02-20 2022-03-25 2022-04-30 2022-05-05 2022-06-10 2022-08-20 2022-09-25 2022-10-30	Mathematics Physics Chemistry Biology History English Geography Computer Science Economics	New York Los Angeles Chicago Houston Philadelphia Phoenix San Diego Dallas San Francisco	62500.00 55000.00 60000.00 52000.00 48000.00 51000.00 54000.00 57000.00	2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16 2024-04-16

9 rows in set (0.00 sec)