

Question1

```
1 CREATE DATABASE EmployeeSystem;
```

Question2

```
mysql> use employeesystem
Database changed
mysql> create table Employee(employee_id int NOT NULL,first_name varchar(50) NOT NULL,last_name varchar(
50) NOT NULL,gender varchar(6) NOT NULL,age int NOT NULL,email varchar(50) NOT NULL,designation varchar(
50) NOT NULL,hire_date date NOT NULL,resigned_date date,address varchar(100));
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> show tables;
+-----+
| Tables_in_employeesystem |
+-----+
| employee                  |
+-----+
1 row in set (0.00 sec)
```

```
mysql> create table Department(department_id int NOT NULL, name varchar(50) NOT NULL, description varchar(
100) NOT NULL);
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> create table Salary(salary_id int NOT NULL, issue_date date NOT NULL, amount float NOT NULL, bonu
s float);
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> create table Project(project_id int NOT NULL, name varchar(50) NOT NULL, description varchar(100)
);
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 'varchar(100))' at line 1
mysql> create table Project(project_id int NOT NULL, name varchar(50) NOT NULL, description varchar(100)
);
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> show tables;
+-----+
| Tables_in_employeesystem |
+-----+
| department                |
| employee                  |
| project                   |
| salary                    |
+-----+
4 rows in set (0.00 sec)
```

```
mysql> Alter table employee
-> add primary key(employee_id);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> DESC employee;
```

Field	Type	Null	Key	Default	Extra
employee_id	int	NO	PRI	NULL	
first_name	varchar(50)	NO		NULL	
last_name	varchar(50)	NO		NULL	
gender	varchar(6)	NO		NULL	
age	int	NO		NULL	
email	varchar(50)	NO		NULL	
designation	varchar(50)	NO		NULL	
hire_date	date	NO		NULL	
resigned_date	date	YES		NULL	
address	varchar(100)	YES		NULL	

```
10 rows in set (0.01 sec)
```

Question3

```
mysql> INSERT INTO employee (employee_id, first_name, last_name, gender, age, email, designation, hire_date)
```

```
-> VALUES
```

```
-> (2, "Kaycee", "Rice", "F", 20, "kaycee@gmail.com", "coach", '2021-03-03'),
-> (3, "Alex", "Bondec", "F", 18, "alex@gmail.com", "choreographer", '2021-04-03'),
-> (4, "Emma", "Chamberline", "F", 22, "emma@gmail.com", "paintcoach", '2021-05-03'),
-> (5, "Nicole", "Leano", "F", 19, "nicole@gmail.com", "choreographer", '2021-06-03'),
-> (6, "J", "Cole", "M", 19, "jcole@gmail.com", "accountant", '2021-07-03'),
-> (7, "Bailey", "Sok", "F", 22, "bailey@gmail.com", "choreographer", '2021-07-03'),
-> (8, "Brent", "Rivera", "M", 17, "riveraw@gmail.com", "coach", '2021-08-03'),
-> (10, "Arnold", "Sueve", "M", 20, "sueve@gmail.com", "paintcoach", '2021-10-03'),
-> (11, "Mango", "Butt", "F", 22, "butt@gmail.com", "paintcoach", '2021-11-03'),
-> (12, "Aurora", "Asko", "F", 19, "aurora@gmail.com", "paintcoach", '2021-12-03'),
-> (13, "Matt", "Step", "M", 23, "matt@gmail.com", "choreographer", '2021-03-03'),
-> (14, "Rose", "Broski", "M", 19, "broski@gmail.com", "choreographer", '2021-04-03'),
-> (15, "T00", "Young", "M", 19, "young@gmail.com", "choreographer", '2021-05-03'),
-> (16, "Bore", "name", "M", 19, "name@gmail.com", "coach", '2021-02-04'),
-> (17, "Bland", "mad", "M", 19, "mad@gmail.com", "coach", '2021-02-04'),
-> (18, "Shame", "Leave", "M", 19, "leave@gmail.com", "coach", '2021-02-05'),
-> (19, "heh", "Heh", "F", 18, "heh@gmail.com", "accountant", '2021-02-06'),
-> (20, "Again", "Admit", "M", 19, "admit@gmail.com", "accountant", '2021-02-07');
```

```
Query OK, 18 rows affected (0.00 sec)
```

```
Records: 18 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO employee (employee_id, first_name, last_name, gender, age, email, designation, hire_date)
```

```
-> VALUES
```

```
-> (9, "KayceeAA", "Rice", "F", 20, "kayceeAA@gmail.com", "coach", '2021-06-03');
```

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

```
mysql>
```

Question4

```
mysql> DESC salary;
```

Field	Type	Null	Key	Default	Extra
salary_id	int	NO	PRI	NULL	
amount	float	NO		NULL	
bonus	float	YES		NULL	
id	int	YES	MUL	NULL	

```
4 rows in set (0.01 sec)
```

```
-> ^C
mysql> insert into salary (salary_id, amount, bonus, id)
-> values
-> (101, 2000, 200, 1),
-> (102, 3000, 300, 2),
-> (103, 2000, 300, 3),
-> (104, 5000, 400, 4),
-> (105, 3000, 400, 5),
-> (106, 3000, 300, 6),
-> (107, 4000, 300, 7),
-> (108, 4000, 300, 8),
-> (109, 4000, 400, 9),
-> (110, 2000, 400, 10),
-> (111, 3000, 500, 11),
-> (112, 3000, 500, 12),
-> (113, 4000, 500, 13),
-> (114, 5000, 500, 14),
-> (115, 7000, 600, 15),
-> (116, 1000, 200, 16),
-> (117, 1000, 200, 17),
-> (118, 6000, 250, 18),
-> (119, 6000, 250, 19),
-> (120, 9000, 600, 20);
```

```
Query OK, 20 rows affected (0.01 sec)
```

```
Records: 20 Duplicates: 0 Warnings: 0
```

```
mysql> select* from salary;
```

salary_id	amount	bonus	id
101	2000	200	1
102	3000	300	2
103	2000	300	3
104	5000	400	4
105	3000	400	5
106	3000	300	6
107	4000	300	7
108	4000	300	8
109	4000	400	9
110	2000	400	10
111	3000	500	11
112	3000	500	12
113	4000	500	13
114	5000	500	14
115	7000	600	15
116	1000	200	16
117	1000	200	17
118	6000	250	18
119	6000	250	19
120	9000	600	20

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

Question5

```
mysql> create table department (department_id int not null, name varchar(50) not null, description varchar(100), id int);
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> alter table department
-> add primary key (department_id);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table department
-> add
-> foreign key (id) references employee(employee_id);
Query OK, 0 rows affected (0.12 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> DESC department;
```

Field	Type	Null	Key	Default	Extra
department_id	int	NO	PRI	NULL	
name	varchar(50)	NO		NULL	
description	varchar(100)	YES		NULL	
id	int	YES	MUL	NULL	

```
4 rows in set (0.01 sec)
```

```
mysql> insert into department(department_id, name, description, id)
-> values
-> (201, "Dance", "Dance is a art", 1),
-> (202, "Sports", "Sports leads to healthy life", 2),
-> (203, "Dance", "Dance is a art", 3),
-> (204, "Paint", "Painting is a kind of therapy", 4),
-> (205, "Dance", "Dance is a art", 5),
-> (206, "Account", "Calculative life", 6),
-> (207, "Dance", "Dance is a art", 7),
-> (208, "Sports", "Sports leads to healthy life", 8),
-> (209, "Sports", "Sports leads to healthy life", 9),
-> (210, "Paint", "Painting is a kind of therapy", 10),
-> (211, "Paint", "Painting is a kind of therapy", 11),
-> (212, "Paint", "Painting is a kind of therapy", 12),
-> (213, "Dance", "Dance is a art", 13),
-> (214, "Dance", "Dance is a art", 14),
-> (215, "Dance", "Dance is a art", 15),
-> (216, "Sports", "Sports leads to healthy life", 16),
-> (217, "Sports", "Sports leads to healthy life", 17),
-> (218, "Sports", "Sports leads to healthy life", 18),
-> (219, "Account", "Calculative life", 19),
-> (220, "Account", "Calculative life", 20);
Query OK, 20 rows affected (0.01 sec)
Records: 20 Duplicates: 0 Warnings: 0
```

Question6

```
mysql> create table project(project_id int not null, name varchar(50) not null, description varchar(100)
,id int );
Query OK, 0 rows affected (0.02 sec)
```

```
mysql> alter table project
-> add primary key(project_id);
Query OK, 0 rows affected (0.05 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table project
-> add
-> foreign key(id) references employee(employee_id);
Query OK, 0 rows affected (0.06 sec)
Records: 0 Duplicates: 0 Warnings: 0

mysql> DESC project;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| project_id | int       | NO   | PRI | NULL    |       |
| name       | varchar(50) | NO   |     | NULL    |       |
| description | varchar(100) | YES  |     | NULL    |       |
| id         | int       | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

```
mysql> select* from project;
+-----+-----+-----+-----+
| project_id | name      | description          | id |
+-----+-----+-----+-----+
| 301        | Two       | Dance is a expression | 3  |
| 302        | Yuki      | Art is expression    | 4  |
| 303        | Bever     | Art is expression    | 10 |
| 304        | Yuki      | Art is expression    | 6  |
| 305        | Numbers   | Art is expression    | 19 |
| 306        | Love      | Dance is expression  | 3  |
| 307        | Work      | Art is expression    | 6  |
| 308        | Nani      | Dance is expression  | 3  |
+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

Question8

```
ERROR 1241 (21000): Operand should contain 1 column(s)
mysql> update employee
-> set resigned_date='2021-12-06'
-> where employee_id=19;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> update employee
-> set resigned_date='2021-12-06'
-> where employee_id=20;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
mysql> select* from employee;
```

employee_id	first_name	last_name	gender	age	email	designation	hire_date	resigned_date	address
1	Sean	Lew	M	19	seanlew@gmail.com	choreographer	2021-02-03	NULL	NULL
2	Kaycee	Rice	F	20	kaycee@gmail.com	coach	2021-03-03	NULL	NULL
3	Alex	Bondec	F	18	alex@gmail.com	choreographer	2021-04-03	NULL	NULL
4	Emma	Chamberline	F	22	emma@gmail.com	paintcoach	2021-05-03	NULL	NULL
5	Nicole	Leano	F	19	nicole@gmail.com	choreographer	2021-06-03	NULL	NULL
6	J	Cole	M	19	jcole@gmail.com	accountant	2021-07-03	NULL	NULL
7	Bailey	Sok	F	22	bailey@gmail.com	choreographer	2021-07-03	NULL	NULL
8	Brent	Rivera	M	17	riveraw@gmail.com	coach	2021-08-03	NULL	NULL
9	KayceeAA	Rice	F	20	kayceeAA@gmail.com	coach	2021-06-03	NULL	NULL
10	Arnold	Sueve	M	20	sueve@gmail.com	paintcoach	2021-10-03	NULL	NULL
11	Mango	Butt	F	22	butt@gmail.com	paintcoach	2021-11-03	NULL	NULL
12	Aurora	Asko	F	19	aurora@gmail.com	paintcoach	2021-12-03	NULL	NULL
13	Matt	Step	M	23	matt@gmail.com	choreographer	2021-03-03	NULL	NULL
14	Rose	Broski	M	19	broski@gmail.com	choreographer	2021-04-03	NULL	NULL
15	T00	Young	M	19	young@gmail.com	choreographer	2021-05-03	NULL	NULL
16	Bore	name	M	19	name@gmail.com	coach	2021-02-04	NULL	NULL
17	Bland	mad	M	19	mad@gmail.com	coach	2021-02-04	NULL	NULL
18	Shame	Leave	M	19	leave@gmail.com	coach	2021-02-05	NULL	NULL
19	heh	Heh	F	18	heh@gmail.com	accountant	2021-02-06	2021-12-06	NULL
20	Again	Admit	M	19	admit@gmail.com	accountant	2021-02-07	2021-12-06	NULL

Question9

```
mysql> select* from employee where first_name like 'R%' or first_name like 'r%';
```

employee_id	first_name	last_name	gender	age	email	designation	hire_date	resigned_date	address
14	Rose	Broski	M	19	broski@gmail.com	choreographer	2021-04-03	NULL	NULL

1 row in set (0.00 sec)

```
mysql>
```

Question10

Question11

```
mysql> select count(id) as employeesalary
-> from salary where amount<3000;
```

employeesalary
5

1 row in set (0.00 sec)

```
mysql>
```

Question12

```
mysql> select * from salary
-> select * from salary;
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 'select * from salary' at line 2
mysql> select * from salary;
```

salary_id	amount	bonus	id
101	2200	200	1
102	3300	300	2
103	2200	300	3
104	5500	400	4
105	3300	400	5
106	3300	300	6
107	4400	300	7
108	4400	300	8
109	4400	400	9
110	2200	400	10
111	3300	500	11
112	3300	500	12
113	4400	500	13
114	5500	500	14
115	7700	600	15
116	1100	200	16
117	1100	200	17
118	6600	250	18
119	6600	250	19
120	9900	600	20

```
20 rows in set (0.00 sec)

mysql>
```

Question13

```
mysql> update salary
-> left join employee
-> on salary.id=employee.employee_id
-> set bonus=amount*0.1
-> where employee.hire_date='2021-02-03';
Query OK, 1 row affected (0.00 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

Question15

```
mysql> select max(amount) as "maximum salary" from salary;
```

maximum salary
9900

```
1 row in set (0.00 sec)

mysql>
```


Question17

```
mysql> delete form employee where employee_id=19;  
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 'employee where employee_id=19' at line 1  
mysql>
```