Name: Ngoc Phuong Trang Duong
ID: 223990468

Task 7.1P

Task 1:

I, SQL Statement:

```sql
DROP TABLE IF EXISTS EMPLOYEE;

CREATE TABLE EMPLOYEE (
    EMP_NUM INT PRIMARY KEY,
    EMP_TITLE VARCHAR(5),
    EMP_LNAME VARCHAR(25) NOT NULL,
    EMP_FNAME VARCHAR(25) NOT NULL,
    EMP_INITIAL CHAR(1) NOT NULL,
    EMP_DOB DATE,
    EMP_HIRE_DATE DATE,
    EMP_AREACODE CHAR(3) DEFAULT '001',
    EMP_PHONE CHAR(8),
    EMP_MGR INT
);
```
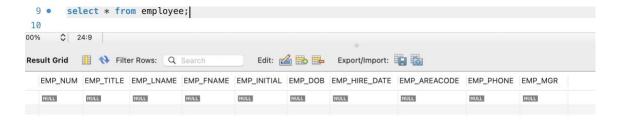
Ii, Result:

```sql
9 •    select * from employee;
10
```
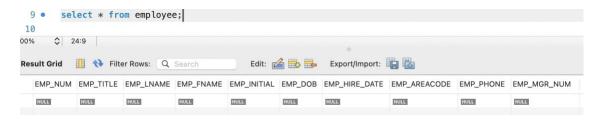
EMP_NUM	EMP_TITLE	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_DOB	EMP_HIRE_DATE	EMP_AREACODE	EMP_PHONE	EMP_MGR
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 2:

I, SQL Statement:

```sql
ALTER TABLE EMPLOYEE
RENAME COLUMN EMP_MGR TO EMP_MGR_NUM;
```

Ii, Result:

```sql
9 •    select * from employee;
10
```

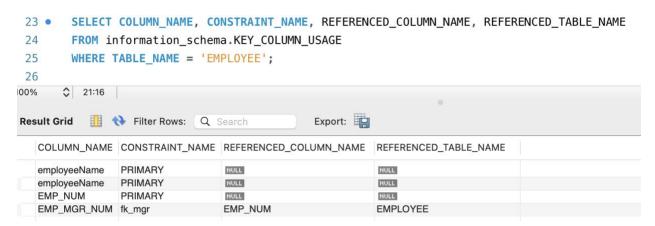| EMP_NUM	EMP_TITLE	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_DOB	EMP_HIRE_DATE	EMP_AREACODE	EMP_PHONE	EMP_MGR_NUM
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 3:

I, SQL Statement:

```sql
ALTER TABLE EMPLOYEE
ADD CONSTRAINT fk_mgr FOREIGN KEY (EMP_MGR_NUM)
REFERENCES EMPLOYEE(EMP_NUM);
```

Ii, Result:

```sql
23 ●    SELECT COLUMN_NAME, CONSTRAINT_NAME, REFERENCED_COLUMN_NAME, REFERENCED_TABLE_NAME
24      FROM information_schema.KEY_COLUMN_USAGE
25      WHERE TABLE_NAME = 'EMPLOYEE';
26
```

00%   ⇕   21:16

Result Grid | 🔳 ↔ Filter Rows: 🔍 Search   Export: 🗄

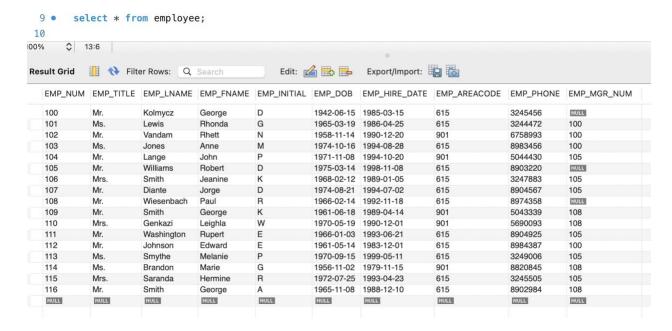| COLUMN_NAME	CONSTRAINT_NAME	REFERENCED_COLUMN_NAME	REFERENCED_TABLE_NAME
employeeName	PRIMARY	NULL	NULL
employeeName	PRIMARY	NULL	NULL
EMP_NUM	PRIMARY	NULL	NULL
EMP_MGR_NUM	fk_mgr	EMP_NUM	EMPLOYEE

Task 4:

I, SQL Statement:

```sql
INSERT INTO EMPLOYEE VALUES
(100, 'Mr.', 'Kolmycz', 'George', 'D', '1942-06-15', '1985-03-15', '615', '3245456 ', NULL),
(105, 'Mr.', 'Williams', 'Robert', 'D', '1975-03-14', '1998-11-08', '615', '8903220 ', NULL),
(108, 'Mr.', 'Wiesenbach', 'Paul', 'R', '1966-02-14', '1992-11-18', '615', '8974358 ', NULL);

INSERT INTO EMPLOYEE VALUES
(101, 'Ms.', 'Lewis', 'Rhonda', 'G', '1965-03-19', '1986-04-25', '615', '3244472 ', 100),
(102, 'Mr.', 'Vandam', 'Rhett', 'N', '1958-11-14', '1990-12-20', '901', '6758993 ', 100),
(103, 'Ms.', 'Jones', 'Anne', 'M', '1974-10-16', '1994-08-28', '615', '8983456 ', 100),
(106, 'Mrs.', 'Smith', 'Jeanine', 'K', '1968-02-12', '1989-01-05', '615', '3247883 ', 105),
(107, 'Mr.', 'Diante', 'Jorge', 'D', '1974-08-21', '1994-07-02', '615', '8904567 ', 105),
(109, 'Mr.', 'Smith', 'George', 'K', '1961-06-18', '1989-04-14', '901', '5043339 ', 108),
(110, 'Mrs.', 'Genkazi', 'Leighla', 'W', '1970-05-19', '1990-12-01', '901', '5690093 ', 108),
(111, 'Mr.', 'Washington', 'Rupert', 'E', '1966-01-03', '1993-06-21', '615', '8904925 ', 105),
(112, 'Mr.', 'Johnson', 'Edward', 'E', '1961-05-14', '1983-12-01', '615', '8984387 ', 100),
(113, 'Ms.', 'Smythe', 'Melanie', 'P', '1970-09-15', '1999-05-11', '615', '3249006 ', 105),
(114, 'Ms.', 'Brandon', 'Marie', 'G', '1956-11-02', '1979-11-15', '901', '8820845 ', 108),
(115, 'Mrs.', 'Saranda', 'Hermine', 'R', '1972-07-25', '1993-04-23', '615', '3245505 ', 105),
(116, 'Mr.', 'Smith', 'George', 'A', '1965-11-08', '1988-12-10', '615', '8902984 ', 108),
(104, 'Mr.', 'Lange', 'John', 'P', '1971-11-08', '1994-10-20', '901', '5044430 ', 105);
```

II, Result:

```
 9 •    select * from employee;
10
```

00% ⬍ 13:6

Result Grid | ⊞ ⟳ Filter Rows: 🔍 Search | Edit: 🖊 ➕ ➖ Export/Import: 🖼 🖼

EMP_NUM	EMP_TITLE	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_DOB	EMP_HIRE_DATE	EMP_AREACODE	EMP_PHONE	EMP_MGR_NUM
100	Mr.	Kolmycz	George	D	1942-06-15	1985-03-15	615	3245456	NULL
101	Ms.	Lewis	Rhonda	G	1965-03-19	1986-04-25	615	3244472	100
102	Mr.	Vandam	Rhett	N	1958-11-14	1990-12-20	901	6758993	100
103	Ms.	Jones	Anne	M	1974-10-16	1994-08-28	615	8983456	100
104	Mr.	Lange	John	P	1971-11-08	1994-10-20	901	5044430	105
105	Mr.	Williams	Robert	D	1975-03-14	1998-11-08	615	8903220	NULL
106	Mrs.	Smith	Jeanine	K	1968-02-12	1989-01-05	615	3247883	105
107	Mr.	Diante	Jorge	D	1974-08-21	1994-07-02	615	8904567	105
108	Mr.	Wiesenbach	Paul	R	1966-02-14	1992-11-18	615	8974358	NULL
109	Mr.	Smith	George	K	1961-06-18	1989-04-14	901	5043339	108
110	Mrs.	Genkazi	Leighla	W	1970-05-19	1990-12-01	901	5690093	108
111	Mr.	Washington	Rupert	E	1966-01-03	1993-06-21	615	8904925	105
112	Mr.	Johnson	Edward	E	1961-05-14	1983-12-01	615	8984387	100
113	Ms.	Smythe	Melanie	P	1970-09-15	1999-05-11	615	3249006	105
114	Ms.	Brandon	Marie	G	1956-11-02	1979-11-15	901	8820845	108
115	Mrs.	Saranda	Hermine	R	1972-07-25	1993-04-23	615	3245505	105
116	Mr.	Smith	George	A	1965-11-08	1988-12-10	615	8902984	108
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 5:

I, SQL Statement:

```
48 •     UPDATE EMPLOYEE
49       SET EMP_MGR_NUM = 100
50       WHERE EMP_NUM = 108;
51
52 •     SELECT * FROM EMPLOYEE WHERE EMP_NUM = 108;
```

II, Result:

EMP_NUM	EMP_TITLE	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_DOB	EMP_HIRE_DATE	EMP_AREACODE	EMP_PHONE	EMP_MGR_NUM
108	Mr.	Wiesenbach	Paul	R	1966-02-14	1992-11-18	615	8974358	100
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Task 6:

I, SQL Statement:

```
54 •    DELETE FROM EMPLOYEE
55      WHERE EMP_MGR_NUM = 108;
56
57 •    SELECT * FROM EMPLOYEE;
```

II, Result:

EMP_NUM	EMP_TITLE	EMP_LNAME	EMP_FNAME	EMP_INITIAL	EMP_DOB	EMP_HIRE_DATE	EMP_AREACODE	EMP_PHONE	EMP_MGR_NUM
100	Mr.	Kolmycz	George	D	1942-06-15	1985-03-15	615	3245456	NULL
101	Ms.	Lewis	Rhonda	G	1965-03-19	1986-04-25	615	3244472	100
102	Mr.	Vandam	Rhett	N	1958-11-14	1990-12-20	901	6758993	100
103	Ms.	Jones	Anne	M	1974-10-16	1994-08-28	615	8983456	100
104	Mr.	Lange	John	P	1971-11-08	1994-10-20	901	5044430	105
105	Mr.	Williams	Robert	D	1975-03-14	1998-11-08	615	8903220	NULL
106	Mrs.	Smith	Jeanine	K	1968-02-12	1989-01-05	615	3247883	105
107	Mr.	Diante	Jorge	D	1974-08-21	1994-07-02	615	8904567	105
108	Mr.	Wiesenbach	Paul	R	1966-02-14	1992-11-18	615	8974358	100
111	Mr.	Washington	Rupert	E	1966-01-03	1993-06-21	615	8904925	105
112	Mr.	Johnson	Edward	E	1961-05-14	1983-12-01	615	8984387	100
113	Ms.	Smythe	Melanie	P	1970-09-15	1999-05-11	615	3249006	105
115	Mrs.	Saranda	Hermine	R	1972-07-25	1993-04-23	615	3245505	105
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL