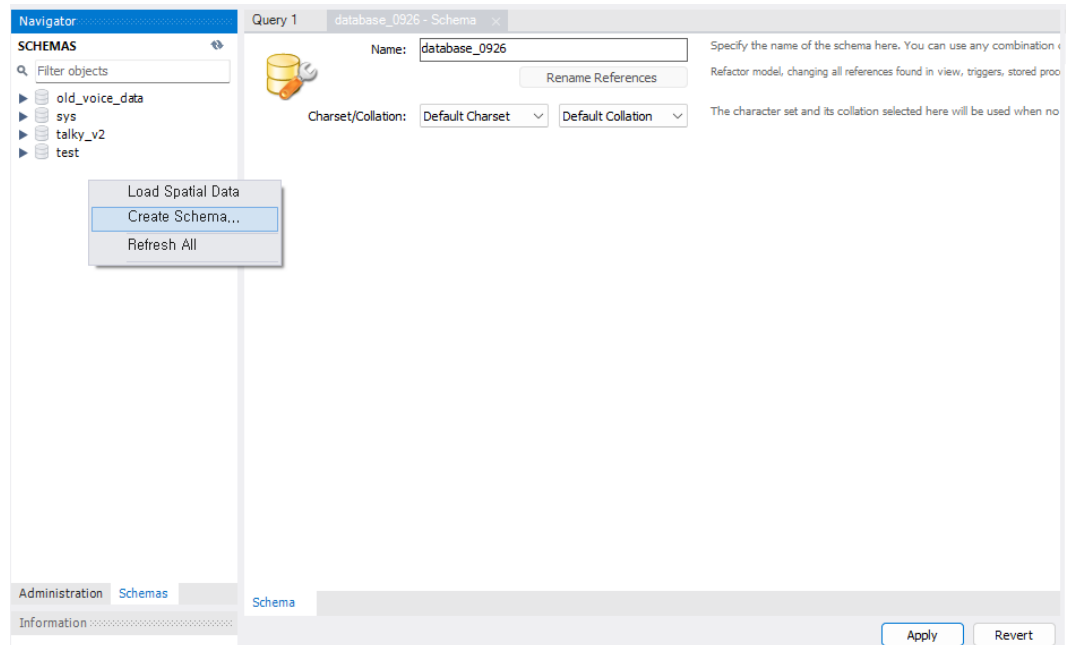
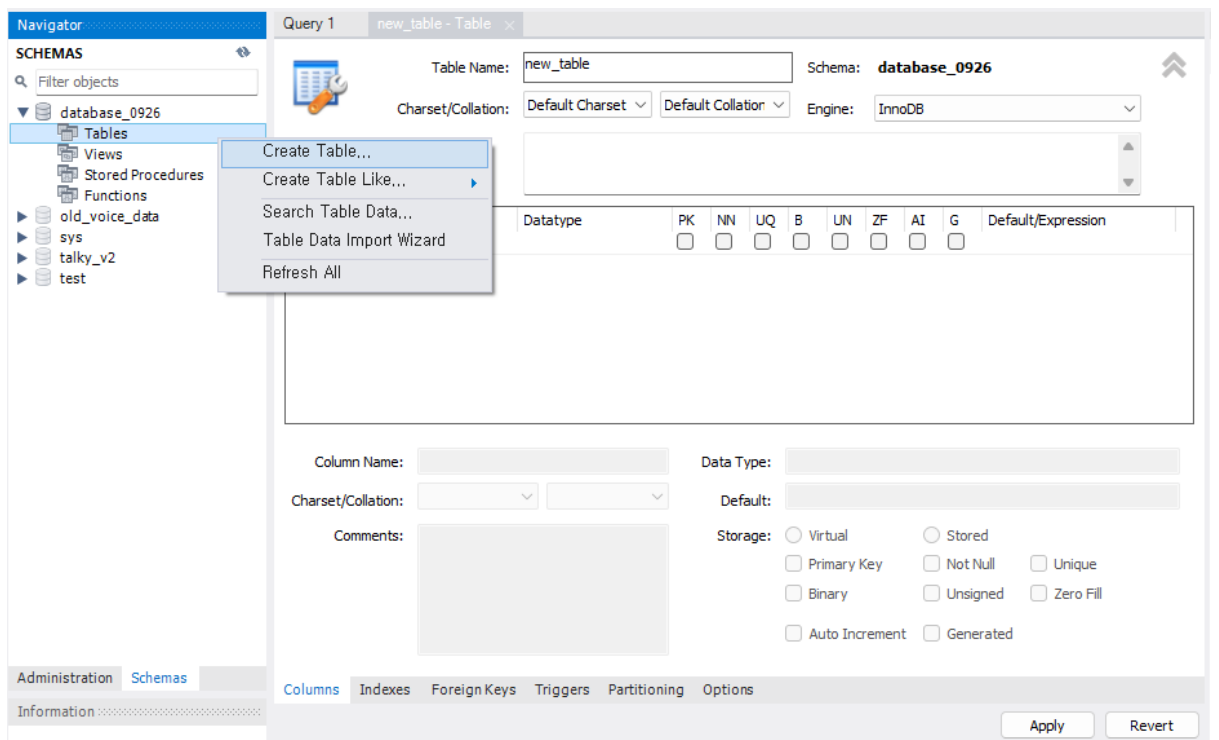


<복습>

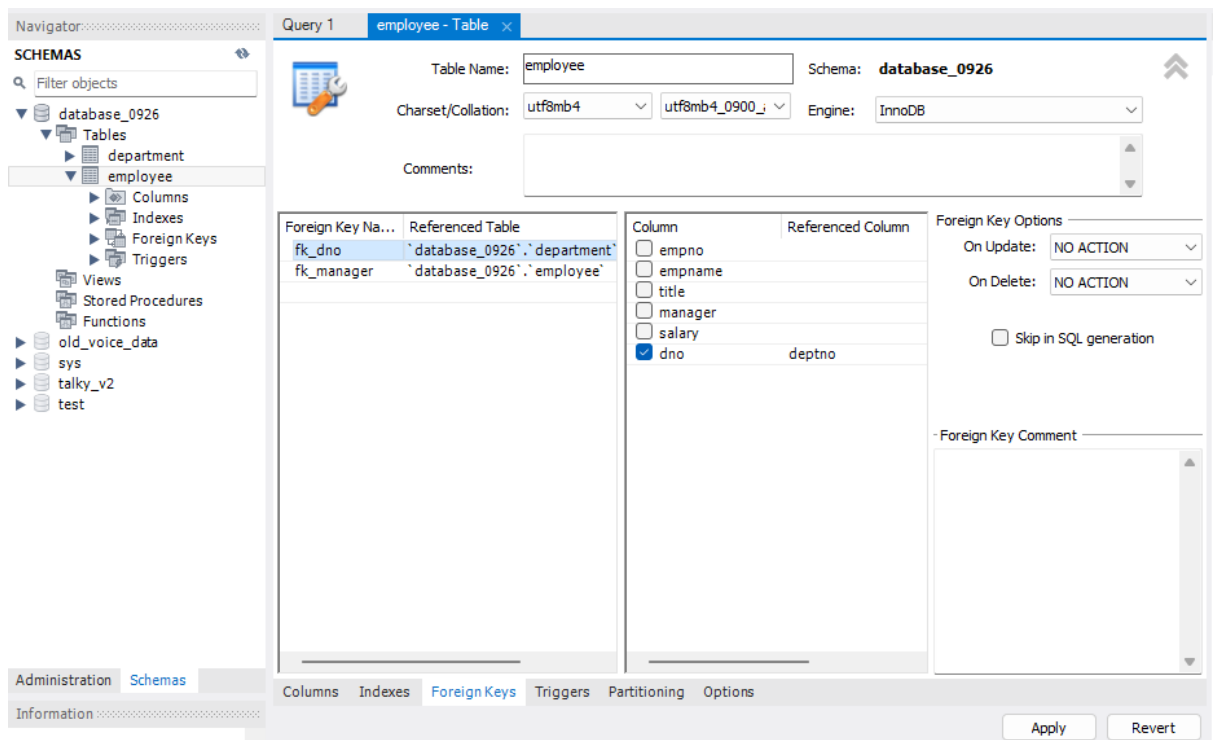
1. Schema 생성



2. Table 생성



3. Foreign Key 설정



4. 간단한 SQL

4.1 SELECT

```
SELECT * FROM database_0926.department;
```

4.2 INSERT

```
INSERT INTO database_0926.department values (1, 'dep_IT', 2)
```

4.3 UPDATE

```
UPDATE database_0926.department SET deptno = 6 WHERE deptno = 1;
```

4.4 DELETE

```
DELETE FROM database_0926.department WHERE deptno = 6;
```

5. Host Language (Python)를 활용한 데이터 삽입

5.1 connect, cursor 객체 생성

```
import pymysql
import pandas as pd
import numpy as np

conn = pymysql.connect(
    host="localhost",
    user=" ",
    password=" ",
    db="database_0926",
    charset="utf8",
    port= ,
)

curs = conn.cursor()
```

5.2 Data load (pandas) & SQL

```
dept_df = pd.read_csv("./Department_Table.csv")
emp_df = pd.read_csv("./Employee_Table.csv")
emp_df = emp_df.replace({np.nan: None})
dept_insert_sql = "insert into department values(%s,%s,%s)"
emp_insert_sql = "insert into employee values(%s, %s, %s, %s, %s, %s)"
```

5.3 Insert data

```
# INSERT DEPARTMENT DATA
for idx, tup in dept_df.iterrows():
    curs.execute(dept_insert_sql, (tup["DEPTNO"], tup["DEPTNAME"], tup["FLOOR"]))
conn.commit()
```

```
for idx, tup in emp_df.iterrows():
    try:
        curs.execute(
            emp_insert_sql,
            (
                tup["EMPNO"],
                tup["EMPNAME"],
                tup["TITLE"],
                int(tup["MANAGER"]),
                tup["SALARY"],
                tup["DNO"],
            ),
        )
    except TypeError:
        curs.execute(
            emp_insert_sql,
            (
                tup["EMPNO"],
                tup["EMPNAME"],
                tup["TITLE"],
                None,
                tup["SALARY"],
                tup["DNO"],
            ),
        )
conn.commit()
```

✧ 실습을 위한 직관적 코드로, 효율적인 코드가 아님

<1001 과제>

요구사항에 맞는 SQL문을 작성, Python을 활용하여 CSV로 저장

(HINT:

```
curs = conn.cursor()
```

```
SQL = SELECT * FROM database_0926.employee" # SELECT SQL 예시
```

```
curs.execute(sql) # SQL 실행
```

```
data = curs.fetchall() # 실행결과 변수에 저장
```

```
df = pd.DataFrame(data) # DataFrame 생성
```

```
df.to_csv("./test.csv") # CSV 저장
```

```
)
```

1. MANAGER가 'John Doe'인 직원들 중 SALARY가 50000 이상인 직원들의
`TITLE`과 `SALARY`를 검색하여 CSV로 저장

2. MANAGER가 'John Doe'인 직원들 중 2층 이상에서 근무하는 직원들의
`DEPTNAME`, `EMPNAME`, `FLOOR`를 검색하여 CSV로 저장