

[INSERT 구현 함수]

```
def insert_student(sid, name, age, phone_number):  
    cursor.execute("""  
        INSERT INTO student (sid, name, age, phone_number)  
        VALUES (?, ?, ?, ?)  
        """, (sid, name, age, phone_number)  
    )  
    conn.commit()
```

```
def insert_assignment(title, student_sid):  
    cursor.execute("""  
        INSERT INTO assignment (title, student_sid)  
        VALUES (?, ?)  
        """, (title, student_sid)  
    )  
    conn.commit()
```

```
def insert_lecture(title):  
    cursor.execute("""  
        INSERT INTO lecture (title)  
        VALUES (?)  
        """, (title,))  
    conn.commit()
```

```
def insert_student_lecture(student_sid, lecture_title):  
    cursor.execute("""  
        INSERT INTO student_lecture (student_sid, lecture_title)  
        VALUES (?, ?)  
        """, (student_sid, lecture_title)  
    )  
    conn.commit()
```

각각 student, assignment, lecture, student_lecture 테이블에 데이터를 INSERT

[SELECT 구현 함수]

```
def select_all_students():
```

```
    cursor.execute('SELECT * FROM student')
```

```
    return cursor.fetchall()
```

```
def select_all_assignments():
```

```
    cursor.execute('SELECT * FROM assignment')
```

```
    return cursor.fetchall()
```

```
def select_all_lectures():
```

```
    cursor.execute('SELECT * FROM lecture')
```

```
    return cursor.fetchall()
```

```
def select_all_student_lectures():
```

```
    cursor.execute('SELECT * FROM student_lecture')
```

```
    return cursor.fetchall()
```

각각 student, assignment, lecture, student_lecture 테이블에 모든 데이터를 SELECT

[입력]

```
# 구현 예시
insert_student('2019147500', 'Alice', 20, '123-456-7890')
insert_student('2019147501', 'Bob', 21, '123-456-7891')

insert_assignment('hello, world', '2019147500')
insert_assignment('help me, world', '2019147500')

insert_lecture('coding')
insert_lecture('math')

insert_student_lecture('2019147500', 'coding')
insert_student_lecture('2019147500', 'math')

print("Students:", select_all_students())
print("Assignments:", select_all_assignments())
print("Lectures:", select_all_lectures())
print("Student Lectures:", select_all_student_lectures())
```

연결한 DB에 Students, Assignments, Lectures, Student Lectures에 각각 2개의 데이터를 삽입

[구현 결과]

```
PS C:\Users\lgsc0\OneDrive\바탕 화면\exercise> & C:/Users/lgsc0/AppData/Local/Programs/Python/Python312/python.exe "c:/Users/lgsc0/OneDrive/바탕 화면/exercise/SELECT"
Students: [('2019147500', 'Alice', 20, '123-456-7890'), ('2019147501', 'Bob', 21, '123-456-7891')]
Assignments: [(1, 'hello, world', '2019147500'), (2, 'help me, world', '2019147500')]
Lectures: [('coding',), ('math',)]
Student Lectures: [(1, '2019147500', 'coding'), (2, '2019147500', 'math')]
```

정상적으로 데이터 테이블에 구현된 것을 확인