

ASSIGNMENT 5

RELATION ALGEBRA

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Allocation of Exercise: 1,2,3

Solution 1:

- **Query:**

```
SELECT sID
FROM took
INNER JOIN offering ON took.Oid = offering.Oid
WHERE Dept = "CS" AND cNum = 100
```

- **View:**

The screenshot shows a SQL query editor with three tabs: 'assignment5_1.sql', 'assignment5_2.sql', and 'assignment5_3.sql'. The 'assignment5_1.sql' tab is active, displaying the following SQL query:

```
1  SELECT sID
2  FROM took
3  INNER JOIN offering ON took.Oid = offering.Oid
4  WHERE Dept = "CS" AND cNum = 100
5
```

Below the query editor, the results are displayed in a table with one column, 'sID'. The table contains one row with the value '1001'.

sID
1 1001

At the bottom of the screenshot, the following text is displayed:

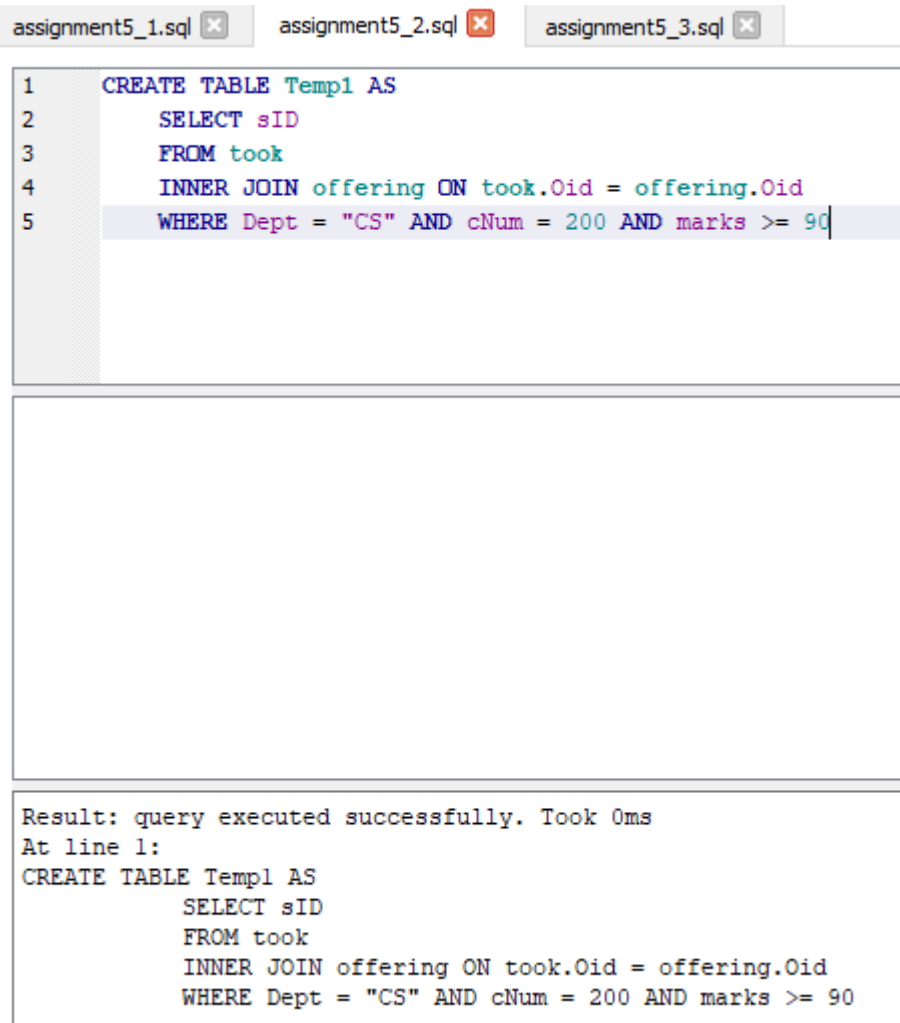
```
Result: 1 rows returned in 15ms
At line 1:
SELECT sID
FROM took
INNER JOIN offering ON took.Oid = offering.Oid
WHERE Dept = "CS" AND cNum = 100
```

Solution 2:

- **Query:**

```
CREATE TABLE Temp1 AS
SELECT sID
FROM took
INNER JOIN offering ON took.Oid = offering.Oid
WHERE Dept = "CS" AND cNum = 200 AND marks >= 90
```

- **View:**



```
assignment5_1.sql ✕ assignment5_2.sql ✕ assignment5_3.sql ✕

1 CREATE TABLE Temp1 AS
2   SELECT sID
3   FROM took
4   INNER JOIN offering ON took.Oid = offering.Oid
5   WHERE Dept = "CS" AND cNum = 200 AND marks >= 90

Result: query executed successfully. Took 0ms
At line 1:
CREATE TABLE Temp1 AS
  SELECT sID
  FROM took
  INNER JOIN offering ON took.Oid = offering.Oid
  WHERE Dept = "CS" AND cNum = 200 AND marks >= 90
```

Solution 3:

- **Query:**

```
SELECT surName, FirstName
FROM student
INNER JOIN Temp1 ON student.sID = Temp1.sID
```

- **View:**

Database Structure Browse Data Edit Pragmas Execute SQL



assignment5_1.sql ✕ assignment5_2.sql ✕ assignment5_3.sql ✕

```
1 SELECT surName, FirstName
2 FROM student
3 INNER JOIN Temp1 ON student.sID = Temp1.sID
```

Result: 0 rows returned in 5ms
At line 1:
SELECT surName, FirstName
FROM student
INNER JOIN Temp1 ON student.sID = Temp1.sID