Database Schema
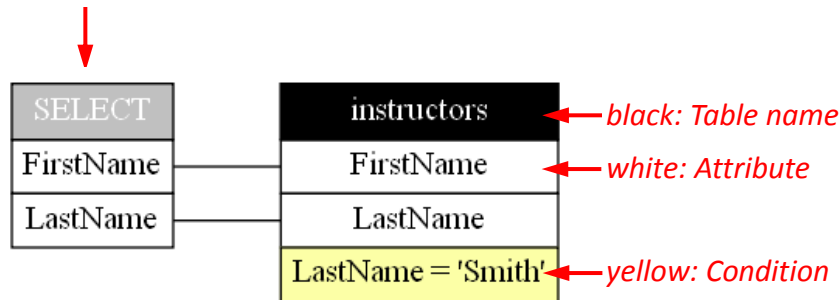
instructors(InstructorID, FirstName, LastName)
students(StudentID, FirstName, LastName, Affiliations, Reputation)
bookcache (BookID, ISBN, Title, Author, Edition, Publisher)
coursebooks(courseid, BookID, BookType)
catalog_entries(catalog_entry_id, Title, course_id)
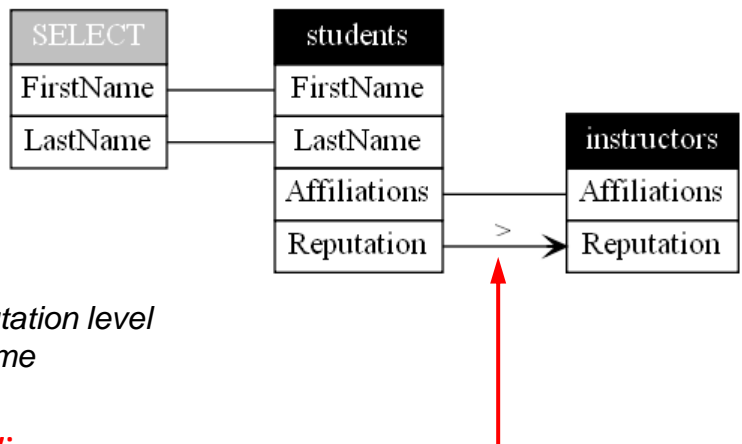
gray: SELECT clause with selected attributes

```
SELECT   FirstName, LastName
FROM     instructors
WHERE    LastName = 'Smith'
```


black: Table name
white: Attribute
yellow: Condition

Find instructors whose last name is 'Smith'

```
SELECT   S.FirstName, S.LastName
FROM     students S, instructors I
WHERE    S.Affiliations = I.Affiliations
AND      S.Reputation > I.Reputation
```
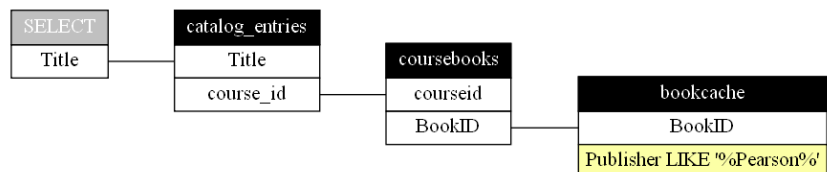

Find the names of students whose reputation level higher than that of an instructor with same affiliations.

Arrow:

• <u>Comparison</u>: the attribute at the arrow tail (here 'Reputation' on the left) is > than the attribute at the arrow head (here 'Reputation' on the right)

```
SELECT   C.Title
FROM     bookcache B, coursebooks CB,
         catalog_entries C
WHERE    B.BookID = CB.BookID
AND      CB.courseid = C.course_id
AND      Publisher LIKE '%Pearson%'
```


Find the titles of courses that use book(s) whose publisher contains string "Pearson".