**Lab 5**

Write down the difference between the following queries:

1. **select** *name*, *course id* **from** *instructor*, *teach* **where** *instructor*.*ID*= *teaches*.*ID*;
2. **select** *name*, *course id* **from** *instructor* **natural join** *teach*;
3. **select instructor.***name*, teach.*course id* **from** *instructor* **natural join** *teach*;
4. **select** \* **from** *student* **join** *take* **on** *student*.*ID*= *take*.*ID*;
5. **select** \* **from** *student*, *take* **where** *student*.*ID*= *take*.*ID*;
6. **select** *student*.*ID* **as** *ID*, *name*, *dept name*, *tot cred*, *course id*, *sec id*, *semester*, *year*, *grade*

**from** *student* **join** *take* **on** *student*.*ID*= *take*.*ID*;

**Add a record in teach table where an instructor teaches a course belonging to another department and not his department.**

1. **select** *name*, *title* **from** *instructor* **natural join** *teach*, *course* **where** *teach*.*course id*= *course*.*course id*;
2. **select** *name*, *title* **from** *instructor* **natural join** *teach* **natural join** *course*;
3. **select** *name*, *title* **from** (*instructor* **natural join** *teach*) **join** *course* **using** (*course id*);

Add a student to the student table who have not taken any course. So avoid entering **this** student’s data in take table.

1. **select** \* **from** *student* **natural left outer join** *take*;
2. **select** *ID* **from** *student* **natural left outer join** *take* **where** *course id* **is** *null*;
3. **select** \* **from** *take* **natural right outer join** *student*;