CSL310 | Assignment-5 | Due 21/Apr/2018 11:59 PM | 100 points

- Important instructions for coding submission are here: https://goo.gl/IMWvdF
- Grading scheme to be followed is available here: https://goo.gl/52D82g
- Assignment description may be underspecified to allow some room for exploration and creativity.
- Your submission should be packaged as a zip file named **exactly** in this format: CSL310-[your entry no.]-[assignment no.].zip.

We need to perform the following tasks in this assignment:

Task A)

We need to create a DB schema which contains the following entities. The entities and their properties are as follows:

1. Person
    a. Person ID (PK)
    b. First name
    c. Last name
    d. DoB
    e. Contact (FK to Contact Info)
2. Contact Info
    a. Street address
    b. City
    c. State
    d. Country
    e. Postal code
    f. Phone
    g. Mobile
    h. Email
3. Team
    a. Team ID (PK)
    b. Creation date
    c. Status {*Active, Retired etc.*}
    d. Name
    e. Office (FK to Contact Info)
4. Team Member
    a. Member ID (PK)
    b. Team ID (FK to Team)
    c. Person ID (FK to Person)
    d. Salary
    e. Hire date
    f. Role {*Owner, Player, Manager, Other.*}
    g. Remarks

Task B)

We need to write a Java program which can insert synthesized (but sensible) data into these tables, and also be able to query the following information from these tables:

Query 1: All "Players" of a given Team whose salary is between a given range.
Query 2: Role wise numbers of team members in a given team.
Query 3: Average salary of players from a given state.

Your program should take the task to be performed as an input option on command line as follows:

1. If the program is run with an option "-i" then it should generate sensible dummy data and insert into these tables as follows:
    a. Insert 20 different Teams each having:
        i. 10 to 15 Players
        ii. 2 to 5 Managers
        iii. 2 to 5 Owners
        iv. 0 to 4 Others
    b. Address of each Person should be randomly chosen from a list of 20 states across India.
2. If the program is run with an option "-q" then only the output for above three queries should be printed. Which query to execute and the parameters for that query should be taken interactively.

Database connection related information should be read either from command line or from a properties file. It must not be hard-coded in the Java source code.

```
$ java -cp ./my-jdbc-driver.jar:. csl310.a4.Query -i or -q
```

What you need to submit:

1. SQL script for creating the above schema.
2. Well documented and properly formatted Java program source code.
3. A README file which should explain how to build and run the program. It should also describe your high-level design and should show a sample run's output.
4. Any other artifacts which you think are necessary.