

Assignment 1

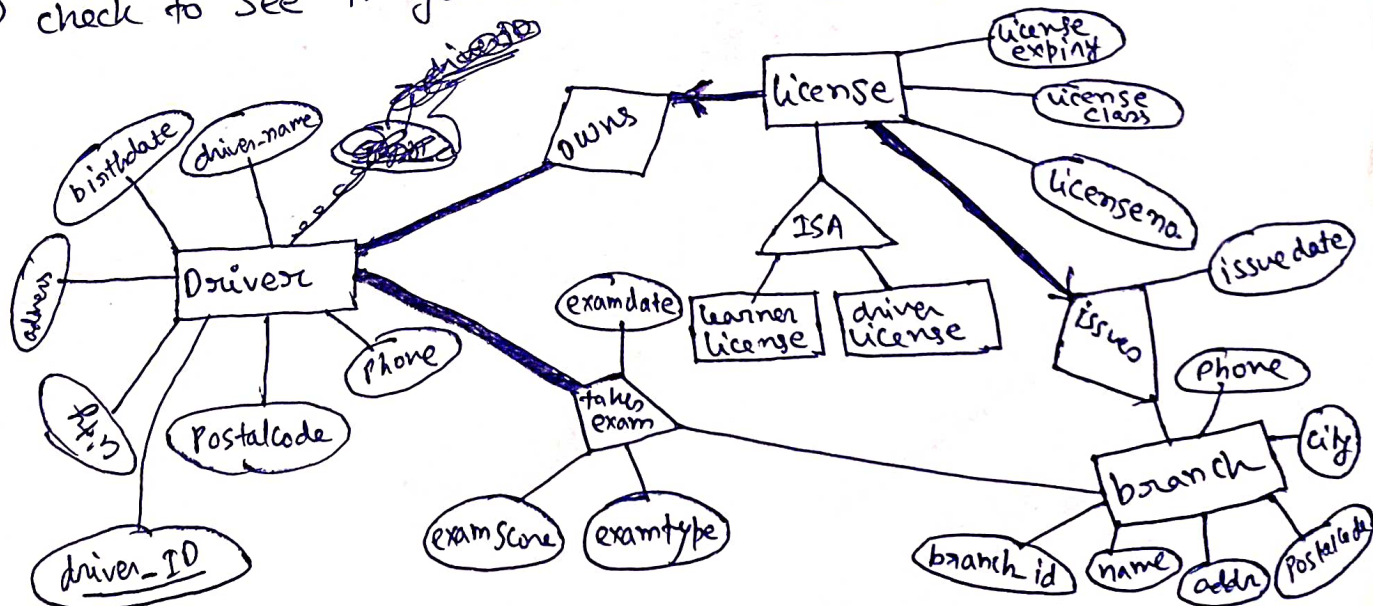
Advanced DBMS LAB

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1) The Motor Vehicle Branch administers driving tests and issues driver's licenses. Any person who wants a driver's license must first take a learner's exam at any Motor Vehicle Branch in the province. If he/she fails the exam, he can take the exam again any time after a week of the failed exam date at any branch. If he passes the exam, he is issued a license (type=learner's) with a unique license number. A learner's license may contain a single restriction on it. The person may take his driver's exam at any branch any time before the learner's license expiry date (which is usually set at six months after the license issue date). If he passes the exam, the branch issues him a driver's license. A driver's license must also record if the driver has completed driver's education, for insurance purposes.

Create an E-R Diagram following these steps →

- 1) Find out the entities in the spec.
- 2) Find out the Relationship among the entities.
- 3) Figure out attributes of the entities and (if any) of the relationships.
- 4) Figure out constraints between entities and Relationships.
- 5) check to see if you don't miss anything in spec.



2) A university Registrar's office maintains data about the following entities:

- a) Courses, including number, title, credits, syllabus, and prerequisites;
- b) Course offerings, including course number, year, semester, section number, instructor(s) timings, and classroom
- c) Students including student id, name, program.
- d) Instructors, including identification number, name, department, and title. Further the enrollment of students in courses and grades awarded to students in each course they are enrolled for must be appropriately modeled.

Construct an E-R diagram for the registrar's office. Document all assumptions that you make about the mapping constraints.

