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CSCI3170 Assignment 1

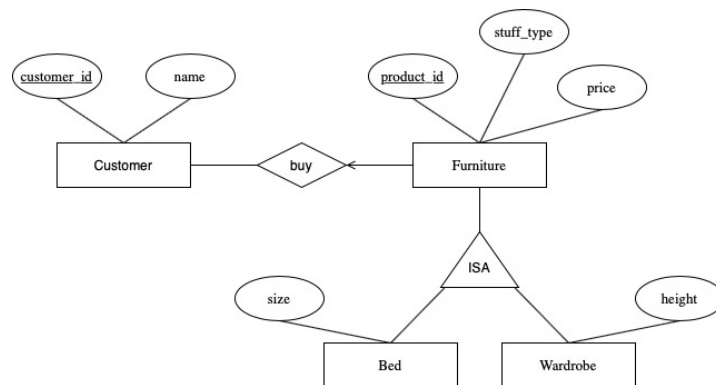---

Question 1

a) paper(<u>title</u>, author)
   cite(<u>cite-title</u>, <u>being-cited-title</u>)

b) person(<u>driver-id</u>, address, name)
   car(<u>license</u>, model, year)
   accident(<u>report-number</u>, location, date)
   owns(<u>driver-id</u>, <u>license</u>)
   participated(<u>driver-id</u>, <u>license</u>, <u>report-number</u>, damage-amount)

Question 2

Since the given relational schemes do not specify the primary keys, we assume the relation "buy" has only primary key "product_id" such that it is a 1:M relationship.
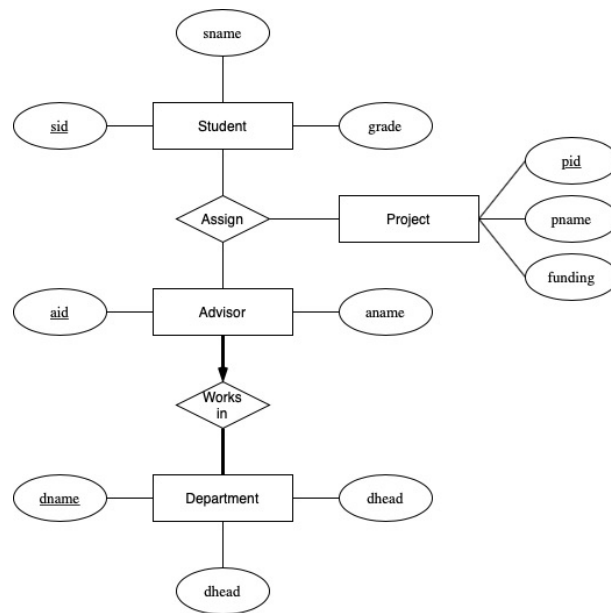

Question 3

a) {pid, pname, funding}, {pid, pname}, {pid, funding}, {pname, funding}, {pid}

b) {dname}, {location, dhead}

c)

d) "Assign" is uniquely identified by the participating entities, that is each "Student", "Project" and "Advisor" can only form a tuple in "Assign". To resolve the issue, adding "Assignment" does allow a "Advisor" assigns a "Project" to a "Student" more than once with different "Distributed date" of "Assignment". See the diagram below.