1 Logistics Company

Please create an appropriate set of relations for the ER diagram in Figure 1. Attribute domains can be ignored. Only a few null values are expected, so avoid extra relations if an alternative solution with fewer relations is possible. Please indicate primary and foreign keys. The relations should be minimal, do not add additional attributes.
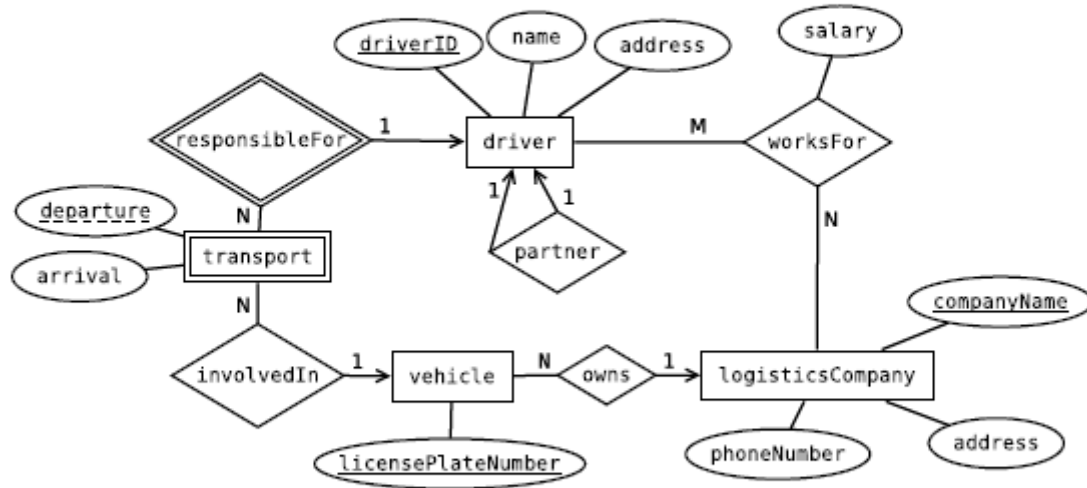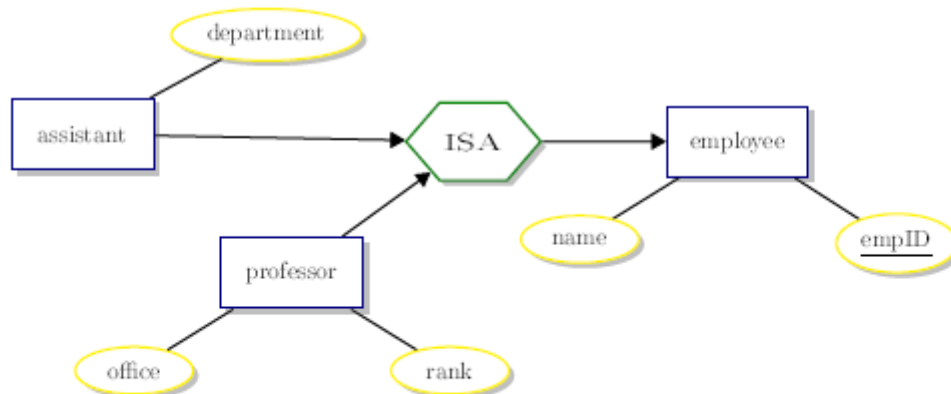

Figure 1: ER diagram: logistics company

2   Generalization/Specialization

Please create an appropriate set of relations for the following ER diagram. Attribute domains can be ignored. Please indicate primary and foreign keys. The relations should be minimal, do not add additional attributes.

Discuss main advantages and disadvantages of the 4 methods of creating relations for generalization relationships. In particular, consider memory consumption, querying, and updates.

3   Loans

Please create an appropriate set of relations for the ER diagram in Figure 2. This includes making reasonable assumptions about the cardinality ratios of all relationship types if not already indicated in the diagram. Attribute domains can be ignored. Only few null values are expected, so do not create extra relations if an alternative solution with fewer relations is possible. Please indicate the primary and foreign keys. The relations should be minimal, do not add additional attributes.
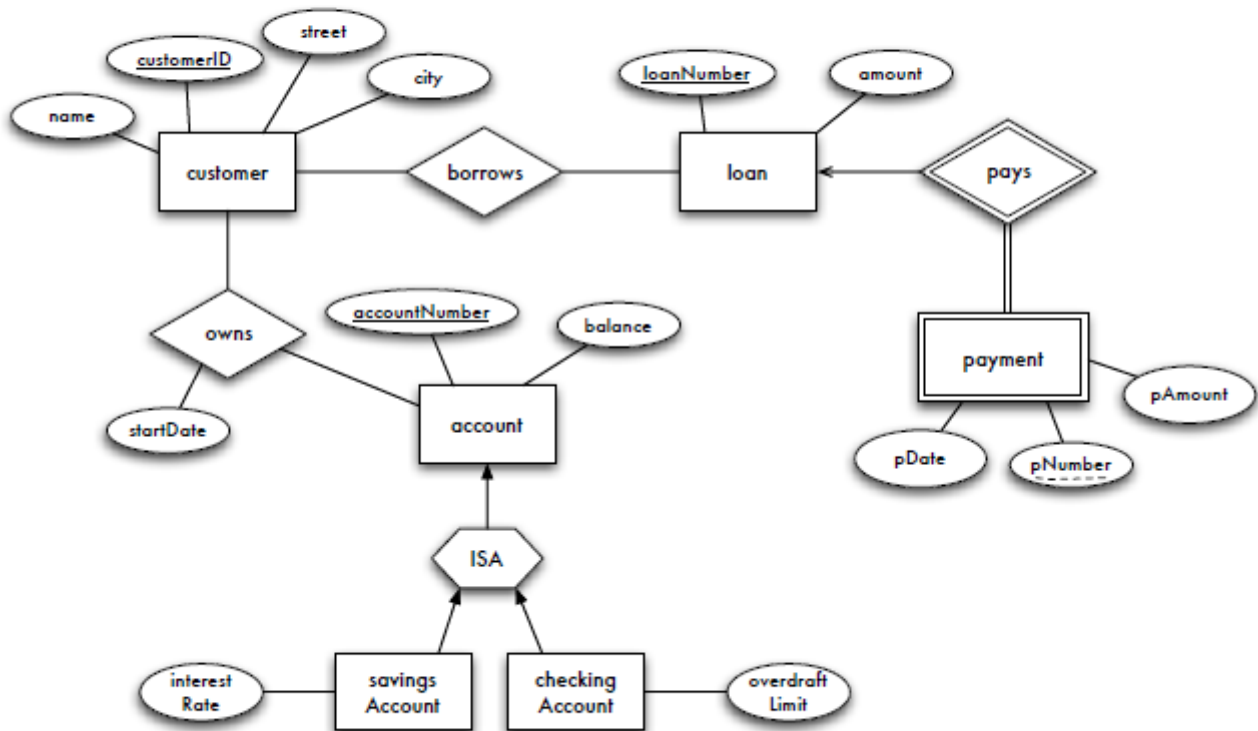

Figure 2: ER diagram: bank accounts and loans