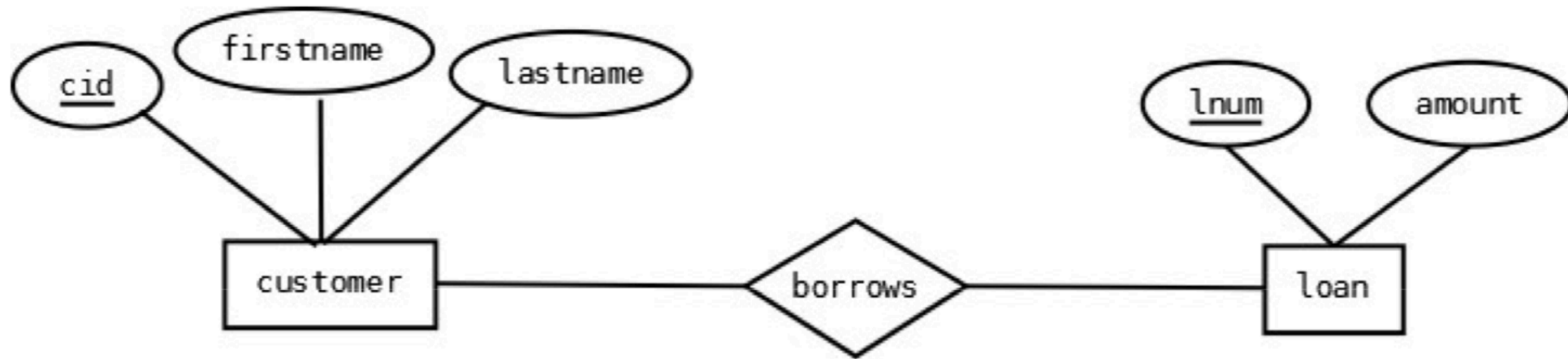# ER Model

CS460: Introduction to Database Systems

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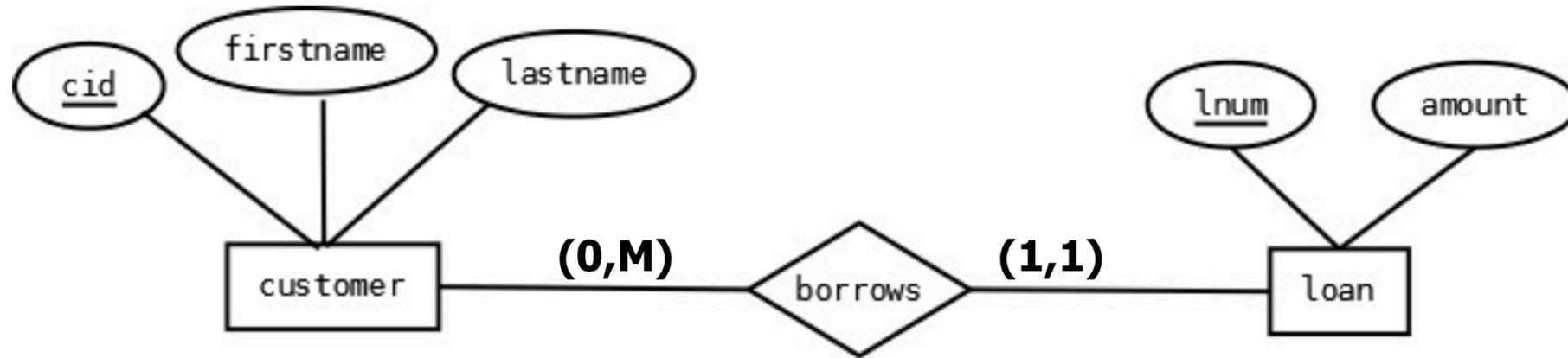
Office Hours: Monday 13:30 – 14:30, Thursday 16:30 – 17:30

ER Diagrams

- **Entity(Rectangle):** An Entity is a thing or object in real world that is distinguishable from surrounding environment. They have a primary key, distinguishing each occurrence of the entity.

- **Relationships(Diamond)**: Relationships are associations between or among entities.

- **Attributes(Oval)**: Attributes are characteristics of an entity, a many-to-many relationship, or a one-to-one relationship. Underlined attributes indicate primary keys.

Ordinality and Cardinality

- **Ordinality** is the minimum number of times an instance in one entity can be associated with an instance in the related entity.

- **Cardinality,** on the other hand, refers to the maximum number of times an instance in one entity can relate to instances of another entity.

Exercise

go to https://www.draw.io