**Entity-Relationship Model**

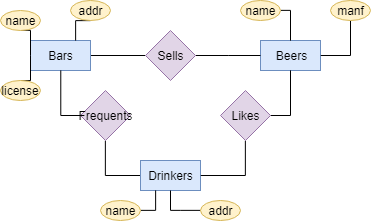
Entity: thing

Entity Set: collection of similar entities

Attribute: property of an entity set

Entities are defined by a square and are representative of a relation

Relationships are defined by a diamond and depict a connection between two Entities

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Many-many relationship: an entity can be connected to many entities

Many-one relationship: multiple entities where each can only point to one entity

**Relation Data Model**

Columns are called “Attributes” and have an associated Datatype

Rows are called “Tuples” and correspond to each attribute

Database: collection of relations

Database Schema: set of all relation schemas

Domain: element type associated with each attribute

Relation Example: Movies(title: string, year: integer, length: integer, genre: string)

Relation Keys are Underlined

Keys can either be UNIQUE or PRIMARY KEY, both can be used to define tuples