## G.M.

## ER Diagram

- Extra attributes. You have often included attributes which are not part of the entity but rather part of the relation. These attributes should not be listed.
  - \* In Property: Owner\_ID, District\_Name
  - \* In Comment, and Booking: Member\_ID, Property\_ID
- Features of Property and POI of District should be multivalued attributes
- Comment should have a relation to Property instead of an attribute called Property\_ID
- You haven't identified weak entity sets, these should be denoted by a doubled bordered diamond for the relation. Example: Comment or Booking
- The Approves relation is invalid. This should be not be here. Property and booking are related by the Books relation.
- Cardinality for Gives and Books relations is backwards. Example: A comment should only be by 1 member and a member should be able to make many comments.
- Primary key for member should either be Member\_ID or Email, not both. As you currently have it, you could insert a member with ID 1 and use two different email addresses.
- For Booking: by having a primary key on just Property\_ID and Booking Start, you don't allow multiple people to request the same place, for the same given time period. If the owner rejects a booking then the property will have to sit empty for that time period because no other record can be created. You need to expand this primary key to include the Member\_ID

## Relational Schema

- Good use of AUTO INCREMENT
- Don't default to empty strings. Use NULL values instead.
- Password should not be limited to 18 characters. Think an order of magnitude larger.
- Features and Points of Interest should NOT be text. They are multivalued properties so they should either be arrays, or there should be new entities called Features / PointsOfInterest with a relation to the corresponding entity. Consider this: What if you wanted to add data about the individual points of interest in the future?
- Property: Price should be a decimal not a float. It's a precise amount.
- Booking: You don't need the end date since all bookings are for a week