TED UNIVERSITY

CMPE 232

PROJECT ER DIAGRAM

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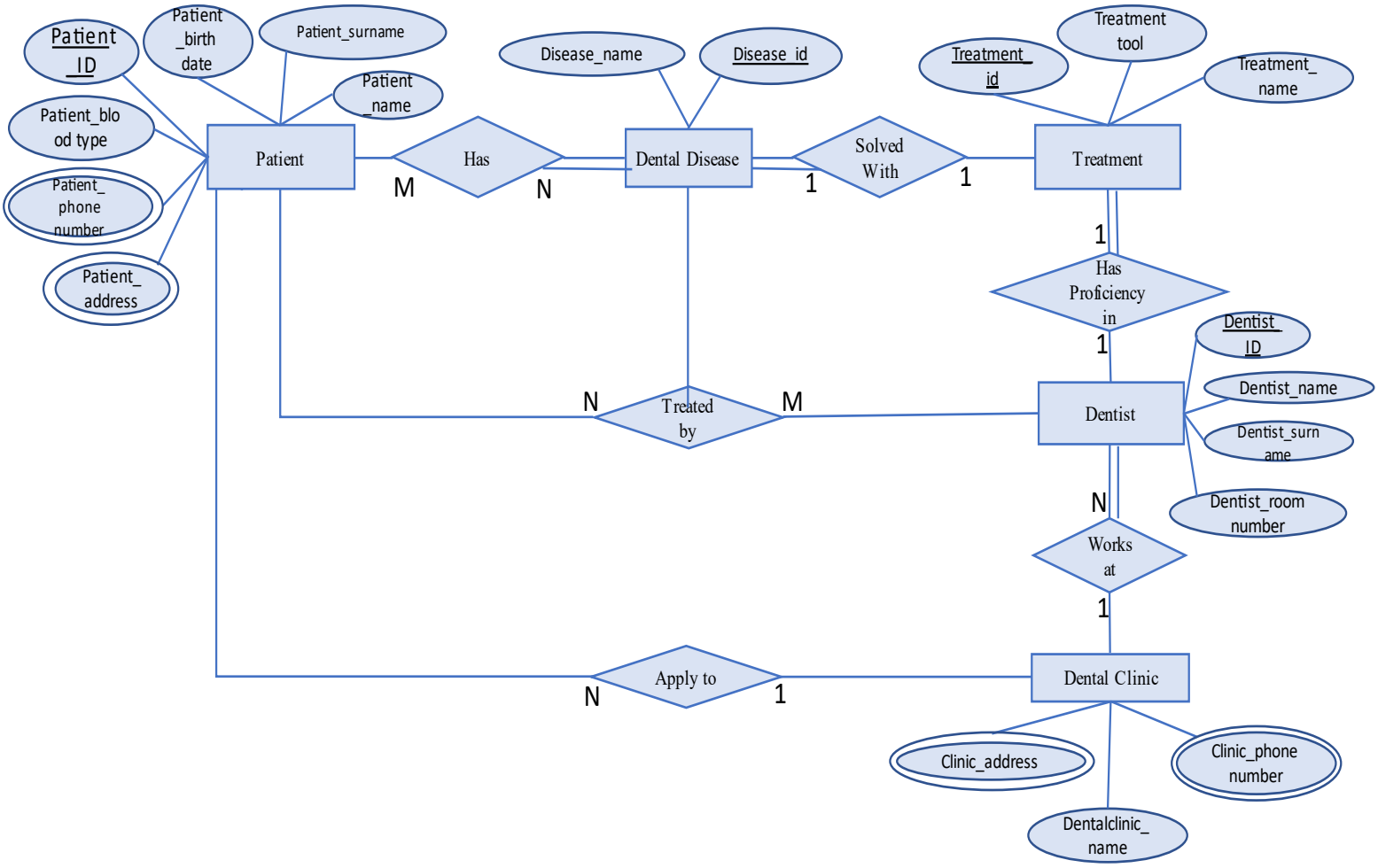
Dental Clinic Database System

ER DIAGRAM OF DENTAL CLINIC



To give a more detailed information, this database includes 5 entities and 6 relationships.

ENTITIES:	RELATIONSHIPS:
1. Dental Clinic	1. Works at
2. Patient	2. Apply to
3. Dental Disease	3. Has
4. Dentist	4. Solved with
5. Treatment	5. Treated by (has ternary relationship between patient to dentist and dental disease to dentist)
	6. Has proficiency in

DETAILS ABOUT THE ER DIAGRAM

Details about entities and attributes:

- The dental clinic has several attributes include Clinic_address, Clinic_name and Clinic_phonenumber. Clinic_address and Clinic_phonenumber are multivalued attributes so they have double ovals.
- Patient entity has the attributes called Patient_name, Patient_surname, Patient_birthdate, Patient_ID, Patient_bloodtype, Patient_phonenumber and Patient_address. Patient_ID is a key attribute of patient entity, so it's underlined since each patient has their own ID. Also, Patient_phonenumber and Patient_address are multivalued attributes, so they have double ovals.
- Each patient has a dental disease. The attributes of dental disease are Disease_name and Disease_id. Disaese_id is a key attribute of dental disease entity, so it's underlined.
- Patients and dental diseases are treated by a dentist. The attributes of dentist include Dentist_name, Dentist_surname, Dentist_ID and Dentist_roomnumber. Dentist_ID is a key attribute of dental disease entity, so it's underlined because each dentist has its own ID in the dental clinic.
- Each dentist has a proficiency in a specific treatment. The attributes of treatment include Treatment_id, Treatment_name and Treatment_tool. Treatment_id is a key attribute of treatment entity, so it's underlined and that identifies which treatment will be done.

Details about relationships:

- Each patient can have multiple dental diseases, and dental diseases can have many patients. So, the relationship between them is M to N relationship.
- Each dental disease solved with only one treatment and a treatment can solve only one dental disease so, it's 1 to 1 relationship.
- Each treatment has only one dentist and a dentist has proficiency in only one treatment so, the relationship between them is 1 to 1 relationship.
- A dental clinic has more than one dentist, but a dentist works for only one dental clinic so, it's N to 1 relationship.
- Dental clinic has more than one patient, but a patient can apply to only one dental clinic so, it's N to 1 relationship.
- Many patients can be treated by many dentists so, it's M to N relationship.