DBMS Project
Diet Clinic Management System

Team-

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Abstract-

In today's world, with technology driving all the key innovations and development, our lives have been reduced to spending all our time in front of our laptops and phones. We seldom take out time for physical activity and prefer interacting with people over social media than meeting them personally. This has significantly affected the health of several individuals, making them prone to major health problems like obesity, heart disease and other issues.

With the alarming rate with which such health issues are rising, getting the right nutritional counselling and taking proper diet has become the need of the hour. Thus, the field of foods and nutrition is coming up as a major domain in medicine today. With major research going on in several areas of the field, and several new clinics emerging, it is imperative to facilitate this field with software and technologies dedicated to cater to the needs of nutritionists and dieticians.

Objective-

Our objective is to create an efficient database management system to manage patient records for diet clinics with several nutritionists being a part of it. The patient details include their personal details along with their medical and food related information. The clinic can enroll patients by giving them an option to choose from several weight-loss/ weight-gain packages with varied duration and cost. We also plan to help such clinics keep a track of research being done in various subfields of nutrition, such as clinical nutrition, sports nutrition, child nutrition and more.

Details About Implementation-

We plan to implement our database using MySQL and Java.

Our entities include Doctors (Nutritionists), Patients, Sub-Domain of Nutrition, Prescription for patients and the Package booked.

The attributes and relationships are described in the relational schema below-

Relational Schema-

Doctor (Did, Name, Contact No, Email, Country, City , Qualification, Salary, SuperID)

Domain (Type, Specialization, No. Of Projects)

Patient (PId, Name, Age, Gender, Contact No, Email, Height, Weight, Did, Duration, Start Date)

Patient_Allergies (Pid, Allergies)
Patient_Medical_History (Pid, Medical History)
Patient_Likes(Pid, Likes)
Patient_Dislikes(Pid, Dislikes)
Patient_Diet(Pid, Daily Diet)
Patient_Physical_Activity(Pid, Physical Activity)

Package (Type, Duration, Cost)

Prescription (PId, Follow Up Period)

Prescription_Supplements (Pid, Supplements)
Prescription_Tests (Pid, Tests)
Prescription_Diet(Pid, Diet Plan)

Role (Did, Specialization)

Note-

1. In Patient entity, did and duration are foreign keys from doctor and package respectively
2. Prescription specifies a weak entity relationship with Patient
3. Role specifies a many to many relationship between Doctor and Domain.
4. Super ID in doctor is an alias to id from the doctor relation itself, which specifies the id of the head to every doctor.
5. Allergies, Medical History, Likes, Dislikes, Physical Activity and Daily Diet are multi-valued attributes of Patient
6. Supplements, Tests and Diet Plan are multi-valued attributes of Prescription