Databases: Exercises 3 (14p/14p)

Assignment 1 [6p/6p]

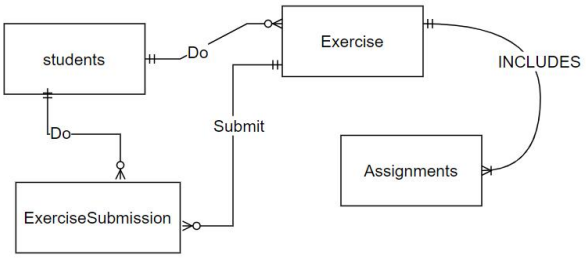
ASSIGNMENT KT2

Design a database solution for the ScoreTronic service for returning the practice assignments of this course.

Drawing ER diagrams to visualize database design ideas, we can have a chance to identify the mistakes and design flaws, and to make corrections before executing the changes in the database.

I found the concepts students, Exercises, Assignment Exercise submission. The description of the database were produced on Draw.ai and the screenshot of it are below

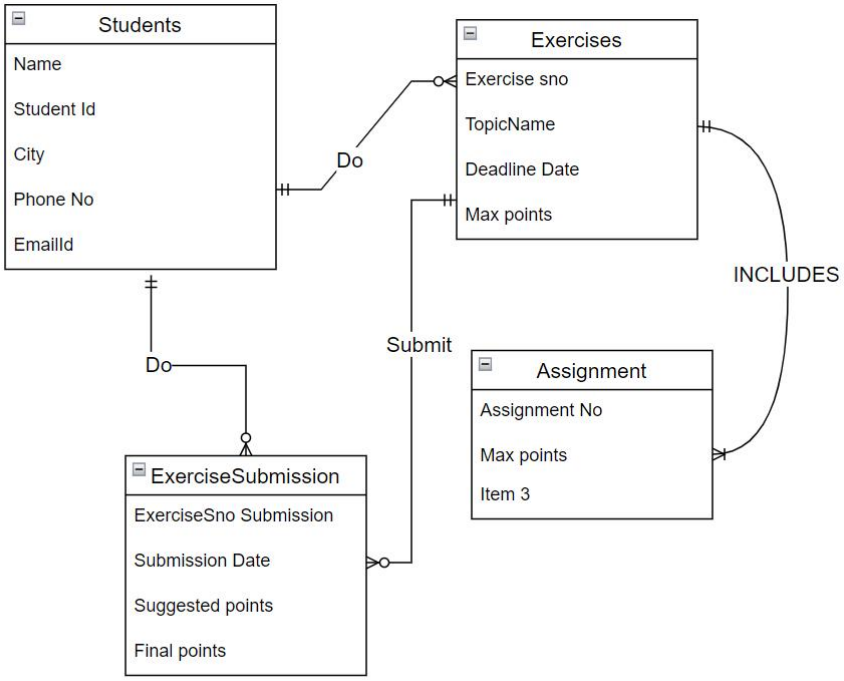
Conceptual model 1.0



- The student do many exercises (O,.Many).
- Each exercise incudes one…many Assignments.
- The Student can do many submissions (0,...,N).

Conceptual model 2.0

- The scoretronic students details in the system can track studentID, studentname, emailId, phone no and city.
- The Exercise details can track and record with unique exercise sno, Topicname, deadline date, max points and each exercise includes one to many assignments to finnish.
- The system can track each Assignments and record assignment no, max points and etc.
- Each exercise can track and record exercise sno submission, submission date, suggested points and final points scored by students when submitted by the students .



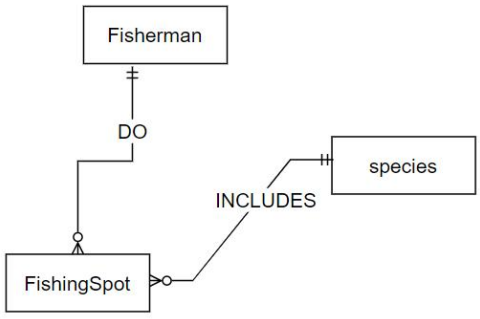
Task 2 [8p/8p]

ASSIGNMENT KT3

Design a database solution where information is stored about fishermen and their fish catches in different fishing spots. Information must also be able to be stored on the fish species caught.

I found the concepts fisherman, Fishingspot, species.The description of the database were produced on Draw.ai and the screenshot of it are below

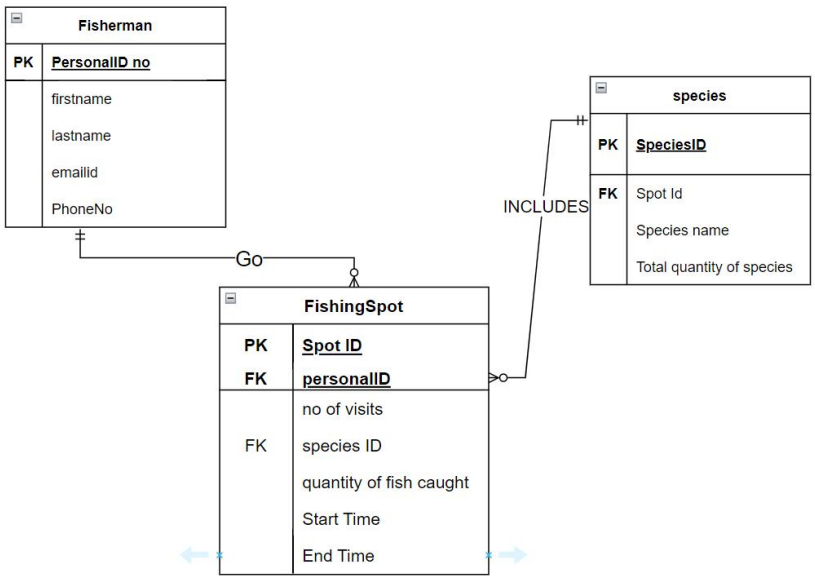
Conceptual model 1.0



The fisherman Can go to many Fishingspot (O,….Many)
Each species incudes Zero…many fishingspots.

Conceptual model 2.0

- The fisherman details in the system can track personalD, firstname, lastname, phone and emailID
- The species details can track and record with speciesID,spotID, speciesname,and total quantity of species
- The fishing spot has unique ID I.e spotID and with reference /foreign key like personalID and speciesID and also records no of visits of the fisherman to that spot and caught what type of species ID, and what amount of fish caught at time intervals



- Added the properties that clearly only defined the found concept fisherman.
- Marked the PersonalId as the basic key (PK) a primary key is a special kind of entity attribute that **uniquely defines a record in a database table**.
- a foreign key is a **reference to a primary key in a table**. It is used to identify the relationships between entities.