

CS3095D DBMS Lab
Exercise No: 2
Due Date: 28/09/2020
Marks: 5

ER Model Design

Problem Definition

Assume that we have to design an online market portal similar to car24 (cars24.com) to buy and sell used cars and bikes. The user who wants to buy/sell a car/bike has to register in the web portal (registration details are given at the end of this document). A registered user can initiate advertisement for selling the items (item details are given at the end of the document). A messaging option must be there in the advertisement where both the seller and buyer can communicate more details. If both buyer and seller agree to buy/sell an item, then the item must be deleted from the list of items advertised for sale by the seller. When a user logs into the portal, all the items currently available for sale must be displayed on that user's home page. When the user selects an item, the system should take the user to another page where the details of the item displayed and owner communication details should be available to the user. An advertisement must have details like unique id, user name, initiation date, expiry date (20 days from the initiation date). No upper limits for the users to make advertisements for selling and the number of items to be purchased by a user.

Details of user registration

1. User Name
2. Email id
3. Address/Location
4. Mobile Number

Details of items sold

1. Car (Manufacturer, Model name, Year of purchase, Expected price)
2. Bike (Manufacturer, Model name, Year of purchase, Expected price, Inspecting Option, Accessories details).

Design an ER Model for the above mentioned details. Describe each Entity, Relationship, cardinalities of relations, and all the other features of the designed ER model, including attribute types such as Composite, Multivalued, Single, Stored, and complex attributes. Use any of the open-source tools for drawing the ERD and saving it as a file.

Students are requested to take care of the following points:

- 1) Save the solution document as a .pdf file. (Format: “**Reg.NumberYourNameExercise No.pdf**” (Ex: B190585CSJohnE01.pdf).
- 2) Submit the pdf file to Eduserver before the deadline (**28.09.2020, 23.59 PM**).
(No further extension will be entertained.)
- 3) Late submission may incur a penalty of **-0.5** marks.
- 4) Evaluation will not be conducted for those who did not submit their solution within the stipulated time.
- 5) Viva (Interactions) will be conducted through WebEx/ google meet. (Share your screen and show your execution as per evaluator’s instructions, if needed.)
- 6) Due to unpredictable situations, students who cannot appear for online viva sessions may get a chance to attend the oral viva through mobile phones.
Note: Only genuine cases will be entertained, and students will have to get prior permission from faculty.
- 7) Google meet link/Eduserver "Join meeting" link and evaluators details will be sent to the students one day earlier.
- 8) The student may use any open source tool for drawing the ERD. (Notations and shapes of ER Diagram should strictly follow the textbook.)
R. Elmasri and S. B. Navathe, Fundamentals of Database Systems,6/e, Pearson Education, 2011.
- 9) Please take snapshots of all the executions and put them in a word file and save it as a pdf file for submission (along with you should write the justification on each notation).

If any doubts about the uploaded marks and uploaded exercises, please mail to (prabum@nitc.ac.in and praneshdas@nitc.ac.in).

***** All the Best*****