CS3095 DBMS Lab
Exercise No: 2
Date of Announcement: 26/07/2018
Due Date: 01/08/2018
Marks: 5

ER Model Design

Problem Definition:

Assume we have to design an online market portal, similar to OLX (https://olx.in), for the NITC community. The users of the web portal will be students, faculty and staff of NITC. Any of the users could be able to register with the web portal with a couple of details, which are given at the end of this document. Any user could be able to initiate an advt for selling one or more items (the list of items and their details are also given at the end of this document). There must be a messaging option in the advt, so that any interested user can communicate with the owner(also a user) of the advt. If both parties agree on a price and the sale happens, the item must be deleted from the list of items advertised for sale by the owner user. When a user logs into the portal, all the items which are currently available for sale must be displayed in the home page of that user. When the user selects an item, the system should take the user to another page where the user can communicate with the owner user. An advertisement must have details like: an unique id, owner user, date of initiation, date of expiry of the advt (10 days from the date of initiation by default), item name). There are no upper limits on the number of advertisements that a user can make at any time and also on the number of items one can opt for buying through the system.

Details for user registration:

1. NITC email id
2. Name of the user
3. Faculty/Staff/Student
4. Mobile number

Details of items that can be sold:

1. Mobile phone (Manufacturer, Model name, Year of purchase, Expected price)

2. Books (Name of book, Author names (can be multiple authors), Expected price, Condition (good, average, bad))
3. Laptop (Manufacturer, Model name, Year of purchase, Battery status (backup or not), Expected price)

Design an ER Model for the above mentioned application. Clearly describe each Entity, Relationship, cardinalities of relations and all the other features of the ER model you have designed, 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.

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