IBM DB2 Contest 2012 Internal Training (19 Jan, 2012)

Questions

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Instruction:
Please time yourself to do these questions. Please finish them before 4:30pm.
There are 6 questions. The following questions are based on tablespace "Ecomm".
Please try to work as a team of 3 members using 1 notebook only.
The members who cannot use the notebook can try to use some blank sheet papers to do the questions. You should have the experience that you cannot always use a notebook for the contest. Besides, you can experience how to communicate with your team members orally during this training.

In the contest, each team involving 3 members obtains ONLY ONE copy for the question paper. For this training, each student can obtain ONE copy (that is, each team can obtain 3 copies in this training). Thus, you can imagine that there is only one copy for the question in the real contest. You need to unstaple the question paper in the contest. Usually, in the contest, each question occupies 1~2 pages. Thus, unstapling the question paper helps you distribute different sheets to different team members in the real contest.

Question 1 [20 Points]

    a.   Please write down the schemas of each (non-system) table on blank sheets

    b.   Please write down all tuples of each table

Question 2 [30 Points]

Please use a web-based interface to display all tuples in table "Category".Specifically, when we type a link like "http://localhost:9080/Q2-web/ShowCategoryServelt", an html page showing all tuples in table "Category" in form of a table with attributes "Category ID" and "Name" should be displayed.

Question 3 [40 Points]

Follow Question 2.
When we type a link like "http://localhost:9080/Q2-web/ShowCategoryServelt?CategoryID=101", an html page showing all tuples in table "Category" with category ID equal to 101 in form of a table with attributes "Category ID" and "Name" should be displayed.

Question 4 [40 Points]

Please use a web-based interface to allow a user to input his user name and his password.
After that, the system needs to check whether the password is correct or not. If yes, display the information of this user (i.e., user ID, user name, user type, address and phone). Otherwise, display to the user that the password is incorrect and ask him to re-type the password. In this case, redirect the page to the login page after 10 seconds.

The link to start is something like "http://localhost:9080/Q4-web/ShowLogin.html".

(Note: You can use the table "User" for this question).

Question 5 [60 Points]

Please use a web-based interface to display all products with unit price >= 200 and name starting with "IBM" in table "Product".

Specifically, when we type a link like "http://localhost:9080/Q5-web/ShowProductServelt", an html page showing all tuples in table "Product" in form of a table with attributes "ProID", "Product Name", "Description", "Unit Price", "Quanitity", "UID", "Category ID" and "Cutoff" should be displayed.

Question 6 [80 Points]

Please use a web-based interface to display the category names of all products with unit price >= 200 and name starting with "IBM" in table "Product".

Specifically, when we type a link like "http://localhost:9080/Q6-web/ShowProductCategoryServelt", an html page showing the category names of all tuples in table "Product" in form of a table with attributes "ProID", "Product Name", and "Category Name" should be displayed.