Advanced databases and data warehouses

Procedural SQL, ps1

Assignment 1

Create the following database objects:

    (a) table `X` consisting of 3 columns: a numerical column `id`, a character column `name`, and a date column `c_date`

    (b) acyclic sequence `sek_X`, that will generate values with a step equal 1 and with a start value equal 1.

Assignment 2

Implement pl/sql block that will insert values into the table `X`. Sequence `sek_X` should insert the values of the column `id`, and the column `c_date` should contain a current date. Finally, the column `name` should contain a string 'name' and a corresponding value of the column `id` (for example: `1, 06-03-2014, name1`).

Assignment 3

Implement pl/sql block that will select `3` best sellers. The data about these best sellers should be inserted into the table `X` – we are interested in `title` and `pubdate` of these best sellers.

Assignment 4

Implement pl/sql block that for each zip code (column `zip`, table `Customers`) and for each year (based on the column `orderdate`, table `Orders`) will calculate a total amount that was spent in orders. Selected data (year, zip code, and total amount) should be inserted into the table `X`.

Assignment 5

Implement pl/sql block containing two explicit cursors:

a) a cursor selecting books that were never ordered

b) a cursor selecting books that were ordered at least twice

Books selected by a cursor `a)` should be displayed on a standard output (only book titles). While the data selected by a cursor `b)` should be inserted into table `X` (title and the number representing how many times the book was ordered).

Database schema:

AUTHOR
- **autorid**
- lname
- fname

BOOKAUTHOR
- **isbn**
- **authorid**

BOOKS
- **isbn**
- title
- pubdate
- pubid
- cost
- retail
- category

PUBLISHER
- **pubid**
- name
- contact
- phone

ORDERITEMS
- **order#**
- item#
- **isbn**
- quantity

ORDERS
- **order#**
- customer#
- orderdate
- shipdate
- shipstreet
- shipcity
- shipstate
- shipzip

CUSTOMERS
- **customer#**
- lastname
- firstname
- address
- city
- zip
- referred

PROMOTION
- gift
- minretail
- maxretail