

Practices

Create database and insert data (c1)

- ❑ `psql -h localhost postgres postgres`
 - `create database dellstore;`
 - `create role admin_dell login password '123456';`
 - `grant all on database «dellstore» to admin_dell;`

 - `\c dellstore admin_dell`
 - `\i [duongdan/]dellstore2-normal-1.0.sql`
 - (`\i 'D:\\Courses\\...\\dellstore2-normal-1.0.sql'`)

Create database and insert data (c2)

- ❑ `psql -h localhost postgres postgres`
 - `create database dellstore;`
 - `create role admin_dell login password '123456';`
 - `grant all on database «dellstore» to admin_dell;`
 - `\q`
- ❑ `psql -d dellstore -U admin_dell -f`
`[path/]dellstore2-normal-1.0.sql`

Database «dellstore»

- ❑ Categories(category, categoryname)
- ❑ cust_hist(customerid,orderid,prod_id)
- ❑ Customers(customerid, firstname, lastname, address1, address2, city, state, zip, country, region, email, phone, creditcardtype, creditcard, creditcardexpiration, username, password, age, income, gender)
- ❑ Inventory(prod_id, quan_in_stock, sales)
- ❑ Orderlines(orderlineid, orderid, prod_id, quantity, orderdate)
- ❑ Orders(orderid, orderdate, customerid, netamount, tax, totalamount)
- ❑ Products(prod_id, category, title, actor, price, special, common_prod_id)


Query by SQL

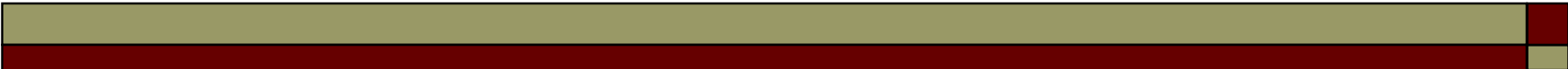
- Write SQL commands for requirements in the next slide
- These commands are stored in a .sql file . Comments are followed by '--'
- File name: studentname_mssv.sql
- SQLFile editor:
 - pgAdmin: SQLEditor
 - Notepad++
 - ...



Query by SQL

1. List of product categories (categories)
- 2.
3. List of product categories and number of products corresponding
4. Give a list of products that have not been ordered
5. Where do our customers come from? (list of countries)
- 6.
- 7.
8. Number of orders by date?
9. How many products are bought on February 3, 2004
- 10.
- 11.
12. List of regular customers (based on the number of orders)

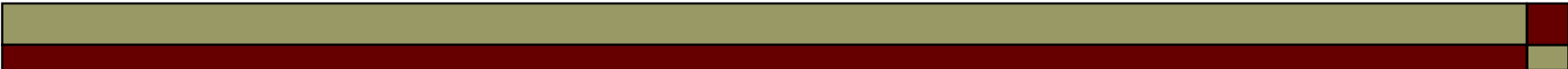
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13. How many customers whose the credit card is expired in September 2008?
 - 14.
 15. How many orders have bought by the customer whose id is 19887?

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16. Display information of customers (full name, address, email, phone number) who have at least 4 orders.

 17. Display information (order date, total amount) of the order having highest value of the customer whose id is 19887.
 18. Show fullname and email of customers who have ordered "AFFAIR ALAMO" product with the biggest quantity.
 19. Provide statistics on customers who have ordered products: for each product and each customer gender, showing number of customers, age average and income average.

Result record:

- prod_id, customer gender, number of customer, age average, income average
20. Which product has ordered by an male customer whose income is above 65000? For each product, display the quantity ordered and sort the results in the descending order of the quantity ordered.

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21. Create a *high_price_products* table having the same structure as *products* table.
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22. Insert into *high_price_products* table the products whose price is greater than 21.99.
 23. On *high_price_products* table:
 - Products of category 1 become ones of category 2.
 - Products having price at 29.99 become special product.
 - Increase the price of all products having current price between 23.00 (\$) and 26.99 (\$) by 1 unit(\$).
 - Delete products having price below 23.00
 24. Remove *high_price_products* table

Triggers

- Define triggers to ensure the following requirements:
 - Rows in **cust_hist** table must be coherent with rows in **Orderlines** and **Orders** tables
 - Trigger **AFTER insert/update/delete** on 2 tables: **orders** and **orderlines**
 - In **Order** table: $\text{totalamount} = \text{netamount} + \text{tax}$
 - Trigger **BEFORE insert** a new row into / **update** an existing row from **orders** table
 - Rows in **Inventory** table must be automatically updated when data on **orderlines** table is changed:
 - Trigger **AFTER insert/update/delete** a row in **orderlines** tables

Views - practice

- ❑ Create a view on dellstore database containing:
(customerid, firstname, lastname, email, phone, orderid, orderlineid, prod_id, title, quantity)
- ❑ Create trigger to control the following requirements:
 - Prod_id, title, quantity, customer email, customer phone can be updated.
 - We can delete a record from the view: deleting a record on the view means a deletion of a record corresponding in orderliness tables. If this makes an empty order, remove this order from orders tables.
 - We cannot insert into this view.