HTTP 5126 – Database Assignment 4 24S

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**Section : A**

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# Assignment 4-Grouping Results (4% of total grade)

**Format:** Upload your queries and results on a MS Word or PDF to Blackboard (under ASSESSMENTS & TOOLS > Assignments > Database). BE SURE TO PUT YOUR NAME AND STUDENT# IN THE FILENAME: e.g. **DB-Assign4- *YourName-N0123456*.doc/pdf**

**Purpose:** To implement new keywords and clauses learned in Lesson 4 in order to provide grouped or, “aggregate”, result sets.

**Requirements:** For this assignment, you will use the provided Pet Store data tables.

## Part 1: MIN() & MAX() (1%)

1. “What is the lowest price of any *item*?” No need to provide the *item*, just the lowest price.

**SELECT MIN(price) AS lowest\_price**

**FROM stock\_items;**

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1. “What is the greatest quantity of any *item* in stock? No need to provide the *item*, just the largest quantity.

**SELECT MAX(inventory) AS largest\_quantity**

**FROM stock\_items;**

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## Part 2: Get Into Groups (1%)

1. Provide a count of employees grouped by *role*. Include the *role* and the count in your results.

**SELECT COUNT(\*) AS employee\_count, role**

**FROM employees**

**GROUP BY role;**

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1. Checking for contact info: Create a chart of employees grouped by *role* that shows the *role*, # of employees in that role, and # of phone numbers for that role.

**SELECT COUNT(\*) AS employee\_count, COUNT(phone) AS phone\_count, role**

**FROM employees**

**GROUP BY role;**

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## Part 3: Challenge (2%)

1. Create a count of *items* by *category* that excludes the fish category (“piscine”). Put “Mammals” as the heading for the category. Use “HAVING” as part of your query.

**SELECT category AS Mammals, COUNT(\*) AS item\_count**

**FROM stock\_items**

**WHERE category != 'Piscine'**

**GROUP BY category**

**HAVING COUNT(\*) > 0;**

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1. Manager: “Inventory time. I need a total of in-stock items by each animal category, organized by fewest items to the most items. At the top of the chart I want to see ‘In stock’, and ‘Animal’.” Hint: in-stock items means the number of items.

**SELECT SUM(inventory) AS 'In Stock', category AS Animal**

**FROM stock\_items**

**GROUP BY category**

**ORDER BY SUM(inventory) ASC;**

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1. Manager: What is the “highest price” from each category organized by the most expensive to least expensive? The results will show : “Highest price”, “Category.”

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**SELECT MAX(price) AS 'Highest Price', category AS Category**

**FROM stock\_items**

**GROUP BY category**

**ORDER BY MAX(price) DESC;**

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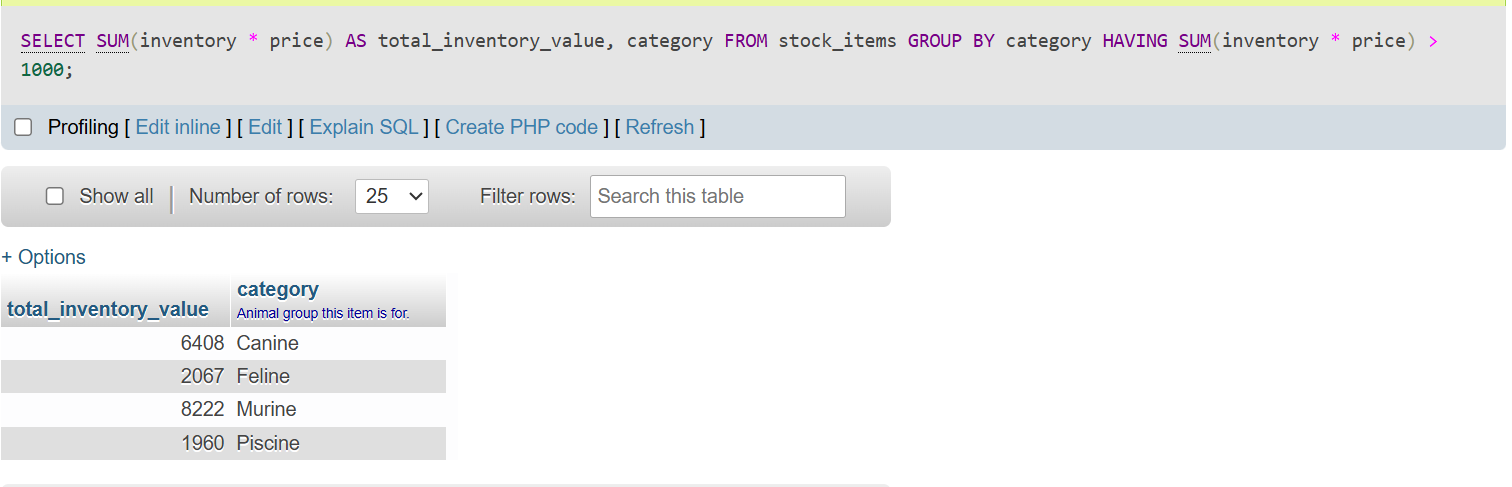
1. Just as you go to the manager’s office with the results from C, the Manager says, “Also, get the total inventory value that is over $1000 by category”. Hint: use SUM to find the total inventory value. The results will show “total\_inventory\_value” as the column name.

**SELECT SUM(inventory \* price) AS total\_inventory\_value, category**

**FROM stock\_items**

**GROUP BY category**

**HAVING SUM(inventory \* price) > 1000;**

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