* Explain the following Queries up to your most understanding:

SELECT products.\* , promotions.name AS promotion\_name,promotions\_products.id AS promotions\_products\_id  
                    “FROM promotions\_products  
                    INNER JOIN promotions ON (promotions\_products.promotion\_id = promotions.id)  
                    INNER JOIN products ON (promotions\_products.product\_id = products.id)  
                    $orgCond”

Answer:

* This is a many to many relation. There is a middle table called promotions\_products\_id that connects a promotion to many products and vice versa. We are fetching every product in the products table and the promotions that it has.

SELECT products.\*,categories.name AS category\_name, subcategories.name AS subcategory\_name  
                FROM products  
                INNER JOIN subcategories ON (products.subcategory\_id = subcategories.id )  
                INNER JOIN categories ON (subcategories.category = categories.id )  
                INNER JOIN organization\_brands ON (organization\_brands.brand\_id = categories.brand\_id)  
                WHERE organization\_brands.organization\_id = $currentClientId  
                GROUP BY products.id

Answer:

* There are several one to one relations between the mentioned tables; The products table is connected with the subcategories table. This last is connected to the categories table as well and the categories table is connected to the organization\_brands that is representing the client. We are joining all these tables to fetch the product along with its subcategory and category of a specific client.

SELECT brands.\*,vendors.name AS vendor\_name  
                    FROM brands  
                    INNER JOIN organization\_brands ON (organization\_brands.brand\_id = brands.id)  
                    INNER JOIN organization\_vendors ON (brands.vendor\_id = organization\_vendors.vendor\_id)  
                    INNER JOIN vendors ON (organization\_vendors.vendor\_id = vendors.id)  
                    WHERE organization\_brands.organization\_id = $currentClientId  
                    GROUP BY brands.id

Answer:

* Same as above. We are using 1 to 1 relation and fetching the vendor’s name and brands of a specific client.
* What can you improve in the following Queries:

SELECT products.name AS product\_name, promotions.name as promotion\_name  
                    FROM sales  
                    INNER JOIN promotions\_products ON (sales.promotion\_product\_id = promotions\_products.id)  
                    INNER JOIN products ON (promotions\_products.product\_id = products.id)  
                    INNER JOIN promotions ON ( promotions\_products.promotion\_id = promotions.id)  
                    WHERE sales.id = {$r[‘id’]}  
                    GROUP BY subcategories.id

Answer:

* This depends on the requested website. From what I understand in the above query, the sales table presents the orders in other words. If there are many products with many offers and we want to fetch the product and promotion name of a specific order, I can’t see any improvement in the above query. On the other hand, if there is a single product with many offers, we can drop the promotions\_products table and add the promotions id to the products table for joining. The answer depends on what is requested. PS: The group by subcategories.id is not efficient in the above query.