SQL тестирование

# Описание таблиц

|  |  |
| --- | --- |
| **Сustomer** | **Description** |
| customer\_id | customer unique id |
| customer\_name | customer name |
| country\_code | country code ISO 3166 |

|  |  |
| --- | --- |
| **Items** | **Description** |
| item\_id | item unique id |
| item\_name | item name |
| item\_description | item description |
| item\_price | item price in USD |

|  |  |
| --- | --- |
| **Orders** | **Description** |
| date\_time | date and time of the orders |
| item\_id | item unique id |
| customer\_id | user unique id |
| quantity | number of items in order |

|  |  |
| --- | --- |
| **Countries** | **Description** |
| country\_code | country code |
| country\_name | country name |
| country\_zone | AMER, APJ, LATAM etc. |

|  |  |
| --- | --- |
| **Сonnection\_log** | **Description** |
| customer\_id | customer unique id |
| first\_connection\_time | date and time of the first connection |
| last\_connection\_time | date and time of the last connection |

# Запросы

## 1. Общее количество покупателей

|  |
| --- |
| **CustomerCountDistinct** |
| # |

|  |
| --- |
| *SELECT COUNT(DISTINCT customer\_id)*  *FROM customer;* |

## 2. Количество покупателей из Италии и Франции

|  |  |
| --- | --- |
| **Country\_name** | **CustomerCountDistinct** |
| France | # |
| Italy | # |

|  |
| --- |
| *SELECT c.country\_name,*  *COUNT(DISTINCT cu.customer\_id) AS CustomerCountDistinct*  *FROM customer AS cu*  *LEFT JOIN countries AS c ON cu.country\_code = c.country\_code*  *WHERE c.country\_name IN ( ‘France’, ‘Italy’)*  *GROUP BY c.country\_name;* |

## 3. ТОП 10 покупателей по расходам

|  |  |
| --- | --- |
| **Customer\_name** | **Revenue** |
| # | # |
| # | # |
| # | # |
| # | # |
| # | # |
| # | # |
| # | # |

|  |
| --- |
| *SELECT cu.customer\_name,*  *ROUND(SUM(i.item\_price \* o.quantity)) AS revenue*  *FROM customer AS cu*  *LEFT JOIN orders AS o ON cu.customer\_id = o.customer\_id*  *LEFT JOIN items AS I ON o.item\_id = i.item\_id*  *GROUP BY cu.customer\_name,*  *ORDER BY revenue*  *LIMIT 10;* |

## 4. Общая выручка USD по странам, если нет дохода, вернуть NULL

|  |  |
| --- | --- |
| **Country\_name** | **RevenuePerCountry** |
| Italy | # |
| France | NULL |
| Mexico | # |
| Germany | # |
| Tanzania | # |

|  |
| --- |
| *SELECT c.country\_name,*  *(SELECT SUM(o.quantity\*i.item\_price) from orders o*  *JOIN items i on o.item\_id=i.item\_id*  *JOIN customers cu on cu.customer\_id=o.customer\_id*  *WHERE cu.country\_code=c.country\_code)*  *FROM countries c;* |

## 5. Самый дорогой товар, купленный одним покупателем

|  |  |  |
| --- | --- | --- |
| **Customer\_id** | **Customer\_name** | **MostExpensiveItemName** |
| # | # | # |
| # | # | # |
| # | # | # |
| # | # | # |
| # | # | # |
| # | # | # |
| # | # | # |

|  |
| --- |
| *SELECT cu.customer\_id,*  *cu.customer\_name,*  *i.item\_name*  *FROM customers as cu*  *INNER JOIN orders AS o ON o.customer\_id = cu.customer\_id*  *INNER JOIN items AS I ON i.item\_id = o.item\_id*  *INNER JOIN (SELECT item\_id*  *FROM orders*  *GROUP BY item\_id*  *HAVING COUNT(customer\_id) = 1) AS uniq ON uniq.item\_id = o.item\_id*  *ORDER BY i.item\_price DESC;* |

## 6. Ежемесячный доход

|  |  |
| --- | --- |
| **Month (MM format)** | **Total Revenue** |
| # | # |
| # | # |
| # | # |
| # | # |
| # | # |
| # | # |
| # | # |

|  |
| --- |
| *SELECT MONTH(o.date\_time) as Month,*  *SUM(o.quantity\*i.item\_price)*  *FROM orders AS o*  *JOIN items i on o.item\_id=i.item\_id*  *GROUP BY Month* |

## 7. Найти дубликаты

Во время передачи данных произошел сбой, в таблице orders появилось несколько дубликатов (несколько результатов возвращаются для date\_time + customer\_id + item\_id). Вы должны их найти и вернуть количество дубликатов.

|  |
| --- |
| *SELECT date\_time,*  *customer\_id,*  *item\_id,*  *COUNT(\*) AS count*  *FROM orders*  *GROUP BY date\_time,*  *customer\_id,*  *item\_id,*  *HAVING count > 1* |