**Задача:** необходимо составить дашборд для отдела продаж онлайн магазина: вывести основные показатели (KPI), которые позволили бы понимать текущее состояние бизнеса в целом и в разных странах, а также динамику наиболее важных метрик.

**Основные метрики:** выручка, MAU, количество заказов, средний чек.

**Срезы:** товары, страны.

**Ссылка на дашборд:** <http://redash.lab.karpov.courses/public/dashboards/DYuD40wTS0Vj2W0GFvlxiRP3It1JZEEYkGIifBH8?org_slug=default>

default.retail – данные о транзакциях британского интернет-магазина в период с 1 декабря 2010 по 9 декабря 2011, где:

* InvoiceNo – номер транзакции
* StockCode – код товара
* Description – описание товара
* Quantity – количество единиц товара, добавленных в заказ
* InvoiceDate – дата транзакции
* UnitPrice – цена за единицу товара
* CustomerID – id клиента
* Country – страна, где проживает клиент

**Запросы, которые были сделаны для реализации:**

|  |  |
| --- | --- |
| Запрос | График |
| SELECT  l.StockCode,  l.Description,  r.refund\_count\_order,  l.sent\_count\_order,  r.refund\_count\_order / l.sent\_count\_order \* 100 as res\_refund\_count\_order,  r.refund\_SUM\_Quantity / l.sent\_SUM\_Quantity \* (-100) as res\_refund\_SUM\_Quantity,  r.refund\_SUM\_Prise / l.sent\_SUM\_Prise \* (-100) as res\_refund\_SUM\_Prise  FROM  (SELECT  StockCode,  any(Description) as Description,  COUNT(InvoiceNo) as sent\_count\_order,  SUM(Quantity) as sent\_SUM\_Quantity,  SUM(TotalPrice) as sent\_SUM\_Prise  FROM  (SELECT  StockCode,  InvoiceNo,  Description,  Quantity,  (Quantity \* UnitPrice) AS TotalPrice  FROM  default.retail  WHERE Quantity > 0)  GROUP BY  StockCode) as l  LEFT JOIN  -- возвраты  (SELECT  StockCode,  COUNT(DISTINCT InvoiceNo) as refund\_count\_order,  SUM(Quantity) as refund\_SUM\_Quantity,  SUM(TotalPrice) as refund\_SUM\_Prise  FROM  (SELECT  StockCode,  InvoiceNo,  Quantity,  (Quantity \* UnitPrice) AS TotalPrice  FROM  default.retail  WHERE Quantity < 0 )  GROUP BY  StockCode) AS r  ON l.StockCode = r.StockCode  WHERE l.sent\_count\_order >= 12  ORDER BY res\_refund\_count\_order DESC  LIMIT 10 | Товары, которые возвращали чаще остальных |
| SELECT  SUM(Quantity \* UnitPrice) AS revenue,  uniqExact(CustomerID) AS uniq\_users,  SUM(Quantity) AS products\_sold,  uniqExact(Country) AS uniq\_country,  min(InvoiceDate),  max(InvoiceDate)  FROM  default.retail | Построение фактоидов |
| SELECT  month,  SUM(TotalPrice) AS revenue  FROM  (SELECT  toStartOfMonth(InvoiceDate) AS month,  Quantity \* UnitPrice AS TotalPrice,  if(Quantity > 0, Quantity \* UnitPrice, null) AS Order,  if(Quantity < 0, Quantity \* UnitPrice, null) AS Refund  FROM  default.retail  WHERE InvoiceDate < '2011-12-01')  GROUP BY month | Выручка |
| SELECT  toStartOfMonth(InvoiceDate) AS month,  uniqExact(InvoiceNo) AS quantity\_orders,  FROM  (SELECT  toStartOfMonth(InvoiceDate) AS month,  InvoiceNo,  SUM(Quantity \* UnitPrice) as TotalPrice  FROM  default.retail  WHERE InvoiceDate < '2011-12-01' and Quantity > 0  GROUP BY month, InvoiceNo)  GROUP BY month | Количество заказов |
| SELECT  toStartOfMonth(InvoiceDate) AS month,  uniqExact(CustomerID) AS unique\_buyers  FROM  default.retail  WHERE InvoiceDate < '2011-12-01'  GROUP BY month | Уникальные пользователи |
| SELECT  month,  AVG(TotalPrice) AS average\_check  FROM  (SELECT  toStartOfMonth(InvoiceDate) AS month,  InvoiceNo,  SUM(Quantity \* UnitPrice) as TotalPrice  FROM  default.retail  WHERE Quantity > 0  GROUP BY month, InvoiceNo)  GROUP BY month | Средняя стоимость заказов |
| SELECT  Country,  RevenueFromCountry,  CASE  WHEN RevenueFromCountry > 50000 THEN Country  ELSE 'RevenueFromCountry < 50 000'  END AS profit\_groups  FROM  (SELECT  Country,  SUM(Quantity \* UnitPrice) as RevenueFromCountry  FROM  default.retail  GROUP BY Country) | Топ стран для круговой диаграммы |
| SELECT  Country,  RevenueFromCountry  FROM  (SELECT  Country,  SUM(Quantity \* UnitPrice) as RevenueFromCountry  FROM  default.retail  GROUP BY Country)  ORDER BY RevenueFromCountry DESC  LIMIT 10 | Топ стран |
| SELECT  Country,  RevenueFromCountry  FROM  (SELECT  Country,  SUM(Quantity \* UnitPrice) as RevenueFromCountry  FROM  default.retail  GROUP BY Country)  ORDER BY RevenueFromCountry  LIMIT 10 | Антирейтинг |
| SELECT  StockCode,  COUNT(InvoiceNo) as count\_order,  any(CustomerID) AS CustomerID,  any(Description) as Description,  any(UnitPrice) UnitPrice,  SUM(Quantity) as SUM\_Quantity,  SUM(TotalPrice) as SUM\_Prise  FROM  (SELECT  StockCode,  CustomerID,  InvoiceNo,  Description,  Quantity,  UnitPrice,  (Quantity \* UnitPrice) AS TotalPrice  FROM  default.retail)  GROUP BY  StockCode  ORDER BY SUM\_Prise DESC  LIMIT 10 | ТОП товаров |