# Lab: Built in Functions

You can check your solutions here: <https://judge.softuni.org/Contests/3136/Additional-Exercises>.

## Obfuscate CC Numbers

Unzip the **02.Built-in-Functions-Databases.zip** file, containing the databases. Import the **Bank** database. Our database contains credit card details for customers.

Write SQL query to provide the **Id**, **FirstName, LastName** and **PaymentNumber without revealing the serial numbers** of each customer.

### Example

|  |  |  |  |
| --- | --- | --- | --- |
| **Id** | **FirstName** | **LastName** | **PaymentNumber** |
| 1 | Guy | Gilbert | 564532\*\*\*\*\*\*\*\*\*\* |
| 2 | Kevin | Brown | 441793\*\*\*\*\*\*\*\*\*\* |
| … | … | … |  |

### \*Bonus

Create a View for the use of clients. It should keep the information with hidden serial numbers.

Table

Description automatically generated

## Pallets

Import the **Logistics** database. Our database contains details about products that have to be loaded on pallets.

Calculate the required number of pallets to ship for each item. The products have **Name**, **Quantity** and:

* **BoxCapacity** specifies how many items can fit in one box
* **PalletCapacity** specifies how many boxes can fit in a pallet

Select the full information about Name, Quantity, BoxCapacity, PalletCapacity and add a new column called **Number of pallets** that shows the calculated amount of pallets for each item.

### Example

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Quantity** | **BoxCapacity** | **PalletCapacity** | **Number** **of** **pallets** |
| Water 500ml | 108 | 6 | 18 | 1 |
| Water 500ml | 10 | 6 | 18 | 1 |
| Chocolate chip | 350 | 24 | 3 | 5 |
| Oil pump | 100 | 1 | 12 | 9 |

## Quarterly Report

Use table **Invoices** from **Logistics** database. It contains details about invoices. Prepare sales data for aggregation by displaying yearly **invoiceId, total,** **quarter**, **month**, **year** and **day** of **sale**.

### Example

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **InvoiceId** | **Total** | **Quarter** | **Month** | **Year** | **Day** |
| 1 | 1.98 | 1 | 1 | 2009 | 1 |
| 4 | 3.96 | 1 | 1 | 2009 | 2 |
| 5 | 5.94 | 1 | 1 | 2009 | 3 |
| 6 | 8.91 | 1 | 1 | 2009 | 6 |