

|  |
| --- |
| Business Template  **household appliances store** |
| **Abel Horvath** |

Contents

[1.1 Business background 3](#_Toc198032065)

[1.2 Problems. Current Situation 3](#_Toc198032066)

[1.3 the Benefits of implementing a database. Project Vision 3](#_Toc198032067)

[2.1 conceptual model 4](#_Toc198032068)

[2.2 Logical Scheme 4](#_Toc198032069)

[2.3 modeling process 5](#_Toc198032070)

# 

# Business Description

## Business background

HouseWare is a medium sized household aplliances store chain with stores in different EU countries.

## Problems. Current Situation

Due to its rapid expansion, the company wants to implement a new, centralised data management model via a realtional database to make company-wide and location.based analytics easier.

## the Benefits of implementing a database. Project Vision

With a newly implemented database the company can deal with the amount of data its operation generates due to its expansion. It can also manage its data far more easily and can analyse its processes and operation.

# Model description

## conceptual model

A diagram of a computer

AI-generated content may be incorrect.

## Logical Scheme

A screenshot of a computer

AI-generated content may be incorrect.

## modeling process

Step 1: designing conceptual model

My first step was to visualize the company’s operation in terms of entities, processes and their relationships, and creating a conceptual model for the database.

The main process of the company is selling **household equipment (products)** to **customers** in several locations – **stores**. Each sale is represented by a **purchase**, and each purchase has an associated **payment**. Each purchase consists of one or more products (**purchase\_item**). Products sold by the company have a model number (**model**), and fall into a product **type**, which fall into certain **categories**. Each model has a **manufacturer (brand)**, and models from different brands are procured from **suppliers**. Information about which supplier sells which brand is stored in the **brand\_supplier** table. There are **staff members** working at each store, and based on their **role**, they can manage different processes: managers manage a store, salespeople are credited with sales (representedd by purchases), and clerks can process payments (this can be done by other roles too). **Location information** about stores, staff and suppliers are stored in the **address-city-country location hierarchy**.

Step 2: designing logical scheme

The second step was to design the logical scheme which encapsulates the details of the database objects and their relationships. Tables and their columns, tables’ relationship to each other are defined and visualized, constraints and data types are set.

step 3: creating the physical database

in the third step the physical DB is created in PostgreSQL using DDL.

First, the database and the schema is created. Then, the tables, with primary key, foreign key and not null constraints set in the create statements. Then check and unique constraints are added with alter table commands.