Ein Bild, das Schrift, Text, Grafiken, Symbol enthält.

Automatisch generierte Beschreibung

**Assessment Submission Form**

|  |  |
| --- | --- |
| **Student Number**  (If this is group work, please include the student numbers of all group participants) | GH1026265 |
| **Assessment Title** | Individual Project Proposal |
| **Module Code** | M605A |
| **Module Title** | Advanced Databases |
| **Module Tutor** | Prof. Alireza Mahmoud |
| **Date Submitted** | 4th July, 2024 |

|  |
| --- |
| **Declaration of Authorship**  I declare that all material in this assessment is my own work except where there is clear acknowledgement and appropriate reference to the work of others.  I fully understand that the unacknowledged inclusion of another person’s writings or ideas or works in this work may be considered plagiarism and that, should a formal investigation process confirms the allegation, I would be subject to the penalties associated with plagiarism, as per GISMA Business School, University of Applied Sciences’ regulations for academic misconduct.  Signed……………Date ……………4th July 2024……………… |

Database Desing and Implementation for ABC online store

GISMA University of Applied Sciences

M605A Advanced Databases

Instructor: Professor Alireza Mahmoud

Final Assessment

July 4, 2024

By:

Eddixon Castillo Ulloa

(GH1026265)

# INTRODUCTION

The objective of this project is to design and implement a database system for "ABC online store". Among the functions that aforementioned database will have are to manage information on: customers, orders, available products, suppliers, returns, location of product image files, comments and ratings.

It will begin by describing the problem to be solved. The entity relationship model with its respective cardinalities will be shown below. Then a description of the designed scheme will be made. The stored data samples will then be displayed. Below, a detailed explanation of the SQL queries used to resolve the proposed questions will be given. Finally, some recommendations and general conclusions.

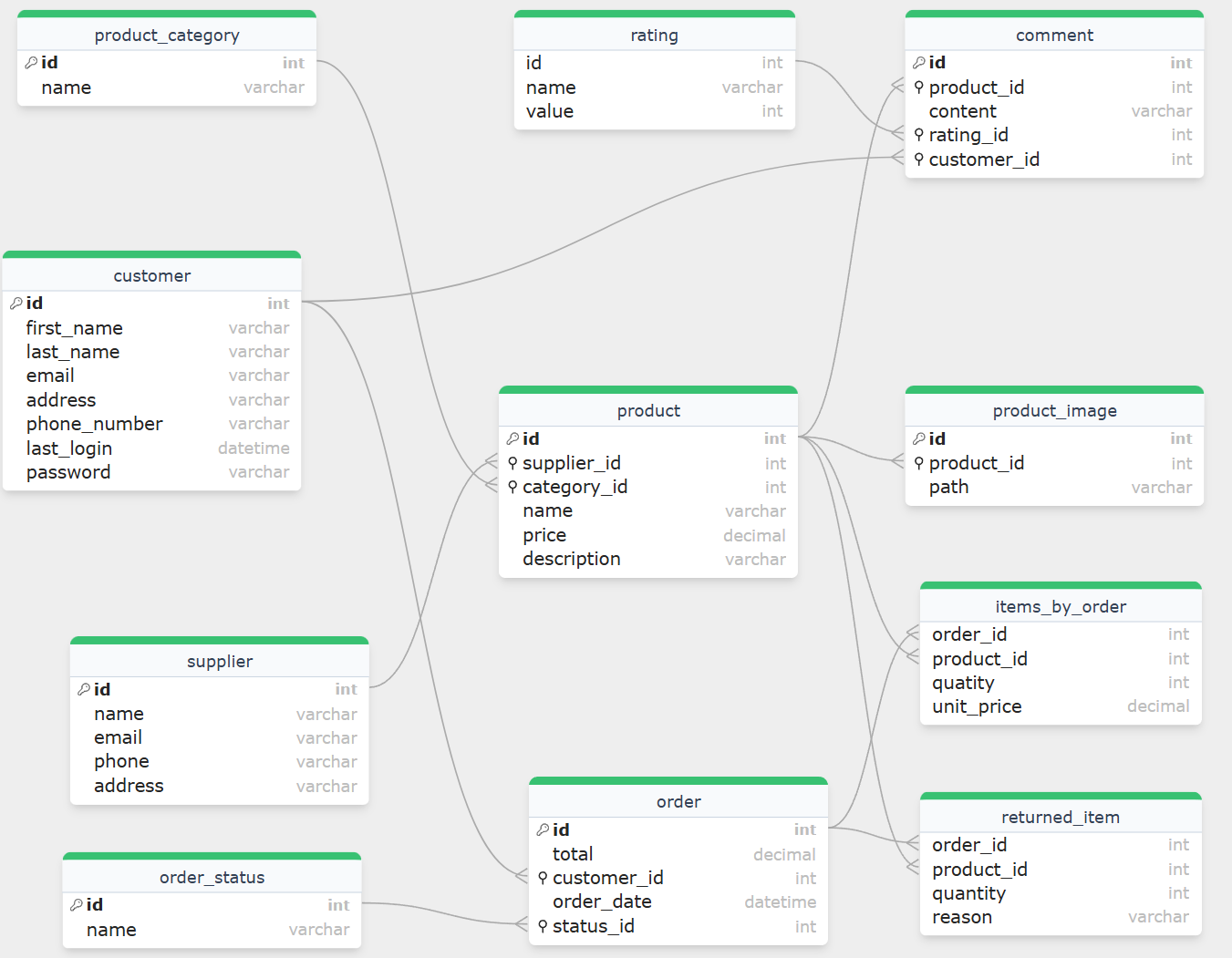
# Description

”ABC Online Store” is a shop company that sells products across the European continent. To have better control over its operations, the company has decided to implement a database that will help to manage its information about clients, products, orders, etc. The model should be able to support the following reports:

* Detailed information about suppliers and the number of products that they provide.
* 10 best-selling products with the total amount and their supplier.
* List of customers and their total purchases.
* List of returned items.
* List of products in the fashion category that were sold last month.

# Database Design

To build the database, the following model has been proposed:



Regarding the model, the following naming convention has been adopted

* Table names should be nouns in singular
* The primary is always called id, in case the primary key is composed, must be start with a noun followed by the string ‘\_id’
* The foreign keys must start with the name of the table that belongs to, and then ends with the suffix ‘\_id’
* All names of tables and columns must be written using snake case naming convention, i.e. using the underscore (‘\_’) as separator. E.g.: returned\_item, last\_login.
* Any discrepancy should be discussed with the database administrator (DBA) or Software Architect (o engineer ) on charge.