Foundations of Databases A.Y. 2021-2022
Homework 1 – Requirements Analysis

Master Degree in Computer Engineering
Master Degree in Cybersecurity
Master Degree in ICT for Internet and Multimedia

Deadline: October 22, 2021

Group	Project	
Group name	Few words description	
Last Name	First Name	Student Number
Doe	John	123456
Last Name	First Name	Student Number
Giuliani	Amedeo	2005797
Last Name	First Name	Student Number
Doe	John	123456
Last Name	First Name	Student Number
Doe	John	123456
Last Name	First Name	Student Number
Doe	John	123456
Last Name	First Name	Student Number
Doe	John	123456

Objectives of the System

Interviews

Natural Language Sentences

The company objective is to optimize costs by having only the bare minimum item quantities. In this way, there should be no waste of resources. The company produces and sells food and beverages. Each product has details, such as name and brand.

The objective of the company is to implement an IMS to address overstocking and outages of items. To accomplish this, each item is stored in the system with name, relative quantity, and expiration date. In particular, when there is a shortage of one or more items, the supplier providing it will be immediately notified with an automatic e-mail. Also, when a product is manufactured but has not been purchased yet, it should be stored in the system as well, with name, quantity, and expiration date. When a shipment that contains a specific product leaves the factory, the latter must be deleted from the inventory.

Some products can be produced in advance, which means that the inventory should have a little stock of them, acting as a "buffer", to be able to evade small orders smoothly. If an order requires more products than how many are already finished, the first is held pending until the requested goods are not manufactured and packaged for the shipping. Of course, products, as well as items, that are expired, must be removed from the inventory as soon as possible as they cannot be sold anymore.

A customer should be able to register to a website in order to search for products to buy, view and manage its orders, and to write reviews – made of a rating and some comments – about products. Upon registering, it must specify its name, contact details, and delivery address. The customer receives an invoice with all the details when it places an order and can track it with a dedicated tracking number provided when the shipment is assigned to the courier. Suppliers must also be registered in the system, along with their name, contact details, and the agreement made with the factory stating which types of items the supplier will be responsible to provide.

In the described system, the manufacturing and shipment of products is performed by simple workers, who are supervised by a manager. The latter is also responsible for finding and making agreements with suppliers for the replenishment of the inventory. Another important figure is the salesman, which is responsible for interacting with customers, advertising products and ensure that they are satisfied. In the end, there is the analyst, which is in charge of performing analyses and predictions on various Key Performance Indicators (KPIs), such as revenues, generated income for each product, and products rating, in order to determine which are the popular products and, on the contrary, which of them should be decommissioned. Each employee must be registered in the system with name, surname, contact details, the department in which he or she is working, and his or her role.

Filtered Sentences

Term Glossary

Term	Description	Synonyms	Connection
A relevant term or object	A brief description of the term: what does it means?	What other words describe the same object?	What other terms in our glossary are linked to it?

Table 2: Describe in this table the terms of your system

Functional Requirements

Non Functional Requirements

Constraints