Acme Morning Flower – Statement

Acme, Inc. is a holding that encompasses many companies worldwide. One of them is Acme Morning Flower, Inc., which specialises in sending a flower to whoever their customers wish, wherever they wish. The only constraints are that only one flower may be sent to a recipient and that it is delivered at 09:00 o'clock in the morning.

The goal of this project is to develop a web information system to help Acme Morning Flower, Inc. manage their business. This document provides an informal description of their requirements; ask your lecturers for clarifications and details.

C-level requirements

Information requirements

- The users of Acme Morning Flower, Inc. are customers and administrators.
- The customers are people who wish to send a morning flower to a recipient. For each customer or recipient, the system must store his or her name, surname, birth date, phone number, and email address. Note that Acme Morning Flower, Inc. offers a service for adults only, so no customer or recipient can be under 18.
- The company manages a large catalogue of flowers. For each kind of flower, the system must store its vulgar name, its scientific name, its unit price, an optional URL with a picture, and one tag that must be taken from a pre-defined catalogue of tags.
- The catalogue of tags includes a list of key words that make it explicit the feeling that a flower is intended to convey. For instance, friendship, love, passion, remorse, help, and the like. Once a tag is registered, it cannot be modified, but it can be cancelled, which implies that it cannot be used to tags new flowers.
- A customer can place an order, for which the system must store the following data: a ticker, the moment when it is placed, the data about the customer, the credit card to pay the flower (which must obviously not expire before the delivery date), the data about the flower, the data about the person to whom the flower must be sent (the recipient), the delivery address (which can be an address anywhere in the world), the delivery date (starting from the day after the order is placed, finishing one month later), and the total price (which includes the price of the flower, the handling and shipping cost, and the taxes). Orders also have a status, which can be pending, cancelled, or delivered.
- The company applies a flat handling and shipping cost that amounts to 2.00 EUR, and the taxes are 21.00%. These figures can, obviously change over time.
- Tickers are 15-character uppercase alphanumeric strings that have the following prefix: "yyyymmdd-", where "yyyy" refers to the year when an order is placed, "mm" to the month, and "dd" to the day. The remaining characters are generated automatically; it is expected that letters are more frequent than digits.

Functional requirements

- A user who is not authenticated must be able to:
  - List the catalogue of flowers.

- Search for the flowers that have a single keyword in their vulgar name, scientific name, or tag.
- Place an order to send a flower to a recipient.
- Cancel an order using its ticker, as long as the order has not been cancelled previously or is already delivered. No cancellation is accepted during the 12 hours before the flower is delivered.
- Display an order by providing its ticker.
- A user who is authenticated as an administrator must be able to:
  - Update the information regarding handling and shipping costs and taxes.
  - Update the catalogue of tags.
  - Manage the catalogue of flowers, which includes listing them, modifying them, deleting them, or creating them. Deleting a flower means that it is flagged as not available, which implies that it is not listed in the catalogue and cannot be further edited, but the information about the flower is not actually removed from the database. A flower that is deleted can be undeleted later.

Non-functional requirements

- The system must be available in English and Spanish.
- The system must be secure.
- The system must be efficient.
- The system will be run in Spain, so it must be in full accordance to the Spanish regulations.

B-level requirements

Information requirements

- The system must support comments regarding the flowers in the catalogue. Every comment is written by a person (who identifies him or herself with a nick or remains anonymous), has a creation moment, a piece of text, and an optional URL with an attachment. A comment can be written in reply to another comment, which helps organise them in a tree-like structure.

Functional requirements

- A user who is not authenticated must be able to:
  - List the comments regarding a flower.
  - Post a comment regarding a flower.
  - Reply to a comment regarding a flower.
- A user who is authenticated as an administrator must be able to:
  - Display a dashboard with the following information:
    - The catalogue of best-selling flowers, which includes the flowers that have been ordered in more than 2.5% of the orders.
    - The catalogue of flowers that have never been ordered.
    - The average number of orders placed by a customer.
    - The average number of times that every flower's been ordered.

A-level requirements

Information requirements

- The system must allow to handle offers. An offer allows to send two flowers, each t a different recipient, with a 10% discount. The only constraint is that both offers must be delivered on the same day. Offers have a title, and an optional description. The percentage of discount may vary over time.
- The system must support comments regarding the offers in the catalogue. Every comment is written by a person (who identifies him or herself with a nick or remains anonymous), has a creation moment, a piece of text, and an optional URL with an attachment. A comment can be written in reply to another comment, which helps organise them in a tree-like structure.

Functional requirements

- A user who is not authenticated must be able to:
    - List the catalogue of offers.
    - Place an order regarding an offer.
    - Cancel an order regarding an offer using its ticker, as long as the order has not been cancelled previously or is already delivered. No cancellation is accepted during the 12 hours before an offer is delivered.
    - Display an order regarding an offer using its ticker.
    - List the comments regarding an offer.
    - Post a comment regarding an offer.
    - Reply to a comment regarding an offer.
- A user who is authenticated as an administrator must be able to:
    - Modify the percentage of discount that is applied to offers.
    - Manage offers, which includes listing them, creating them, deleting them, and modifying them.