

# Acme Meals

## Information requirements

- The actors of the system are users, managers, critics and administrators. The system must store their names, surnames, and email addresses; optionally, it might also store a phone number and a postal address.
- A manager has one or more restaurants. For every restaurant, the system must store the name of the restaurant, the phone, city, address, email, picture, average of stars, a valid credit card, if they have a delivery service and optionally the cost of the delivery and the minimum amount.
- A manager can create meals to his/her restaurant. Every meal has a title, description, a price and a category.
- The system must store user's credit card.
- An user can make an order to a restaurant. An order has a moment, amount, status ('DRAFT', 'PENDING', 'INPROGRESS', 'FINISHED') and if it is for pick up or the delivery address.
- A user may comment on a restaurant. The system must store a title, the text, the authored moment and a number of stars (1-5). The comment cannot be modified or deleted from the system.
- A user or a manager can report a comment. The system must store a text with the reason, and the authored moment.
- A manager can register the social identities of his/her restaurants. Such identities consist of a nick, the name of a social network, a link to that social network, and an optional picture.
- The system can issue invoices to users. For every invoice, it must store the moment when it's issued, Acme meals' VAT number, some information about the user, the total amount due (in EURO), the credit card that was used to pay it and a copy of personal data from the user.
- The system must store the following information about credit cards: a holder name, a brand name, a number, an expiration month, an expiration year, and a CVV code, which is an integer between 100 and 999.
- For every critic, the system must store the name of the company for which he or she works.
- A critic can create reviews of restaurants. These reviews have a title, text, and a rate (1-5). A critic is not allowed to write more than one review per restaurant.
- A user can like or dislike to the reviews.

- A manager can pay for his/her restaurant to be promoted on welcome page. The system must store the beginning and ending date of the promotion and the times it has been shown on the welcome page.
- On the welcome page will be shown the picture of one restaurant promoted and a link to display his profile. The pictures will alternate every time that you go to the welcome page.
- An administrator generates the monthly bills and associates them with the manager. For every monthly bill, the system must store the moment when it is created, the moment when it is paid and the cost. The cost is computed based on the number of times that the restaurant has been displayed on welcome page; a fee that can be configured by administrators is applied every time a restaurant is displayed on welcome page.

## Functional requirements

- An actor who is not authenticated must be able to:
  - o Register to the system as a user.
  - o Register to the system as a manager.
  - o Browse the catalogue of restaurants and navigate to their meals.
  - o Search restaurants by a keyword. This keyword must appear in their names, categories or addresses.
  - o Browse the catalogue of reviews and navigate to their authors.
- An actor who is authenticated as a user must be able to:
  - o Do the same as an actor who is not authenticated, except for registering to the system.
  - o Edit his/her personal data.
  - o Make an order to a restaurant.
  - o List and display his/her orders. Edit or delete the order if the status is 'DRAFT'.
  - o List his/her invoices.
  - o Give like or dislike to a review.
  - o Comment on a restaurant.
  - o Report a comment of another user.
- An actor who is authenticated as a manager must be able to:
  - o Manage his/her restaurants, which includes creating, listing, editing and disable them.
  - o Manage the meals of his/her restaurant, which includes creating, listing, editing and disable them. A disabled meal will be not available to order, but it still stored in the system for older orders.
  - o Manage received orders. Only can change the status.
  - o Manage his categories, which includes creating, listing, editing and deleting them.
  - o Can request that one or more of restaurants be promoted.
  - o List and display his monthly bills.
  - o Report a comment.
  - o Manage the social identities of his/her restaurants, which includes creating, listing, editing and deleting them.
  - o Display a dashboard with the following information:
    - The total number of orders received.
    - The restaurant who has more stars.
    - The restaurant who has less stars.
    - Average profit of restaurants.
    - Profit for every restaurant
    - The restaurant who has more profit.
    - The restaurants who have ordered  $\pm 10\%$  the average number of orders.
- An actor who is authenticated as a critic must be able to:
  - o Do the same as an actor who is not authenticated, except for registering to the system.
  - o Manage his or her reviews this include creating, deleting and listing them.

- o A listing with his or her reviews sorted according to the number of likes that they have got.
  
- An actor who is authenticated as an administrator must be able to:
  - o Register a new actor as critic.
  - o Manage the VAT number of Acme Meals.
  - o Manage the fee.
  - o Browse users who have 2 or more reports and navigate to their reports.
  - o Ban or unban a user.
  - o Manage reports, which includes listing, deleting them and navigate to user report.
  - o Generate the monthly bills.
  - o List paid and unpaid monthly bills.
  - o Display a dashboard with the following information:
    - The minimum, the maximum and the average number of orders per user.
    - The restaurant with more orders.
    - The restaurant with less orders.
    - The ratio of restaurants with social identity.
    - The minimum, the maximum and the average number of reviews created per critic.
    - The restaurant with more reviews.
    - The restaurant with less reviews.
    - The review with more likes.
    - The maximum, the minimum and the average number of monthly bills per restaurant.
    - The ratio of restaurants promoted
    - The restaurant who has more stars.
    - The users who have ordered  $\pm 10\%$  the average number of orders.
    - The number of users who have commented  $\pm 10\%$  the average number of comments.

## Non-functional requirements

- The system must be available in English and Spanish.
- The system will be run in Spain, so it must comply with the Spanish regulations except for the following ones:
  - The requirement in LOPD regarding keeping files and communications secure and confidential.
  - The requirement in LSSI regarding informing the Chamber of Commerce about your internet domain.
- The system must be as efficient as possible.
- Pictures are not required to be stored by the system, but referenced by means of their URLs.
- The validity of a credit card must be checked as follows:
  - Its number must be run through Luhn's algorithm to checksum it.
  - The expiry date must be confirmed to be at least seven days in future.
- Wherever a credit card is shown, it must be masked, i.e. only the leading and trailing four digits must be readable; the others must be displayed as asterisks.
- A random review will be announced on the homepage.

# **A+ level requirements**

In Acme Meals, we want another design style for our web-page. We recommend use the Bootstrap for giving us a new and nice design for our web-page. We ask for:

A report in which you explain how this Bootstrap technology works and how this technology is implemented in the project. The report is expected to be 1 000-word long; illustrations are strongly recommended.