ACME EVENTS

DP – GROUP 21

Acme Events

Acme Events, Inc. is a business that consists of helping managers organize events in their clubs and publicize them. It also helps clients to stay informed of the events they want and participate in them.

Information requirements

1. The actors of the system are administrators, managers, and clients. For every actor, the system must store a name, an optional middle name, a surname, an optional photo, an email, an optional phone number, an optional address, and an arbitrary number of social profiles. The system must store the following data regarding such social profiles: a nick, the name of the social network, a link to a profile in that social network. The system also stores the identification document number (DNI or similar) for every client.

2. Clients can have a credit card, for every credit card the system must store a holder name, a brand name, a card number, a expiration month, a expiration year and a CVV code. The valid brand names are VISA, DINNERS, MASTER and AMEX.

3. Actors can exchange messages. For every message, the system must keep track of the sender, the recipient, the moment when it was sent, the subject, the body, its priority, and some optional tags. Priorities are HIGH, NEUTRAL, or LOW; no other values are expected. Every actor has the following message boxes: in box, out box, trash box, and spam box. When an actor receives a message, it gets to the in box unless the system flags it as spam, in which case it gets to the spam box. When he or she sends a message to another user, it's saved to the out box. When an actor removes a message from a messages box other than trash box, it is moved to the trash box; when he or she removes it from the trash box, then it is actually removed from the system. The previous messages boxes are predefined and the actors must not be allowed to delete them, to change their names, or to move them. Actors are allowed to create new boxes that they can manage arbitrarily to have a better organization of their messages. This is very useful because clients can ask questions to managers and managers to solve these doubts or get in touch with some clients.

4. Managers can register clubs. For every club, the system must store a name, an address, a description and some optional pictures. When a club is created and saved in final mode, it should be accepted by an administrator. Until the club is not accepted, events cannot be created for this club and the club is not visible by the others actors of the system.

5. Managers can publish events. For every event, the system must store a ticker, a title, the moment when it's published, an optional poster, a description, a price, the moments of starting and ending of the event, a status, the category and the club to which it belongs. Note the events that are saved in draft mode aren't visible to others actors

until they are saved in final mode. The possible status are "AVAILABLE" and "CANCELLED".

6. The categories of events are organized into a hierarchy by the administrators. Every category belongs to a parent category, but the root category, which is called "EVENT/EVENTO". The catalogue of categories is provided by the system. For every category, the system must store a title.

7. A client may follow a club. The system must store the moment when a club is followed.

8. Once an event is saved in final mode, the clients who follows the respective club receives a notification. The notification is received in the notification box.

9. A client can participate to an event of one of the clubs he follows. To participate in an event, the client should have a valid credit card vinculated. For every participation, the system must store the moment when the participation was done and the number of credit card used.

10. A clients can publish opinions about his events. For each opinion, the system must store a title, a description, a score and the moment where the opinion is saved. Opinions cannot be removed or updated. A client can only publish opinions of events he has participated and who are already finished. A client can only publish one opinion per event. Then the events have an average score that is calculated with the average of all their scores just like the clubs have a score that is calculated with the average of the means of the scores of all their events.

Functional requirements

11. **An actor who is not authenticated must be able to:**
    1. Register to the system as a manager or a client.
    2. List all the accepted clubs that are in the system, see their information, and navigate to his manager or to the list of their events.
    3. List all managers that are in the system, see their information, and navigate to their clubs and their social profiles.
    4. List all the events that are in the system saved in final mode and navigate to their respective club.

12. **An actor who is authenticated must be able to:**
    1. Do the same as an actor who is not authenticated, but register to the system.
    2. Edit his or her personal data.
    3. Manage his or her social profiles, who include creating, updating and deleting them.
    4. Exchange messages with other actors and manage them.
    5. Manage his or her messages boxes, except for the system boxes.

13. An actor who is authenticated as a manager must be able to:
1. Manage their clubs, which includes listing, showing, creating, updating and deleting them. A club saved in final mode cannot be updated or deleted. When a club is displayed, the manager can see the score of this club.
2. Manage the events of their clubs, which includes listing, creating, updating and deleting them. A manager may update or delete an event only if it's saved in draft mode. When an event is saved in final mode, a notification must be send at all the clients who follows the club where the event is organized.
3. Cancel an event. When a event is cancelled a notification must be send at all the clients who participe in this event. Only events saved in final mode can be cancelled.
4. List the participations of his events and the total number of participations for each event and navigate to the client who participe in the event and show his personal data and social profiles.
5. List the opinions of his events and the median of his scores for each event and navigate to the client who participe in the event and show his personal data and social profiles.

14. An actor who is authenticated as a client must be able to:
1. Follow or unfollow a club.
2. List the clubs he follows and navigate to the events that are organized in that clubs ordered by date and divided in three lists (AVAILABLE, CANCELLED and FINISHED).
3. Filter the catalogue of events using the following filters: a single key word that must appear somewhere in its club, ticker, description; a category to which the event must belong; a range of prices; or a range of dates.
4. Participate in an event of one of the clubs he follows. The client must have a valid credit card linked for do this. Each client can only have one participation for event. Clients cannot participate in events who have already finished.
5. List the events he participate.
6. Publish an opinion about an event he participated and who is already finished.
7. Manage his credit card, who includes creating, editing and deleting it.

15. An actor who is authenticated as an administrator must be able to:
1. Create user accounts for new administrators.
2. Manage the catalogue of categories, which includes listing, showing, creating, updating, and deleting them. Note that categories evolve independently from events, which means that they can be created, modified, or deleted independently from whether they are referenced from an event or not.
3. List the clubs that are not accepted yet and accept or refuse them. If the club is refused, a reason must be given by the administrator.
4. Broadcast a message to all of the actors of the system.
5. Display a dashboard with the following information:
   - The average, the minimum, the maximum, and the standard deviation of the number of clubs per manager.

- The average, the minimum, the maximum, and the standard deviation of the number of events per club.
- The average, the minimum, the maximum, and the standard deviation of the maximum price of the events.
- The average, the minimum, the maximum, and the standard deviation of the number of events per client.
- The ratio of planned events.
- The ratio of cancelled events.
- The listing of clubs who have at least 10% or more events with cancelled status.

Non-functional requirements

16. The system must be available in English and Spanish. (Unless otherwise stated, the data are not required to be available in several languages, only the messages that the system displays.)

17. The system must be easy to customise at run time. The customisation includes, but is not limited to: the name of the system (it's "Acme Events" by default); the banner shown at the header; the message that is shown on the welcome page ("Welcome to Acme Events! The best place to make and go to events." is the default welcome message in English; "¡Bienvenidos a Acme Events! El mejor sitio para publicitar y asistir a eventos." is the default welcome message in Spanish); a list of spam words (it's "sex", "viagra", "cialis", "one million", "you've been selected", "Nigeria", "sexo", "un millón", and "ha sido seleccionado" by default); the default country code in telephone numbers (it's "+34"by default).

18. The system must provide the following leaf categories by default: MODERNO/MODERN, POPULAR/POPULAR, REGGEATON/ REGGEATON, CLASICO/CLASSIC, ELECTRO/ELECTRO, DEEP/DEEP, TECH/TECH, TRAP/TRAP, RAP/RAP, ORQUESTA/ORQUEST, PIANO/PIANO, VIOLÍN/VIOLIN, GUITARRA/GUITAR, ROCK/ROCK, POP/POP. Their names must be displayed appropriately in Spanish or English depending on the language that the principal's selected. The categories must be grouped appropriately into higher-level categories.

19. Photos are not required to be stored in the database, but links to external systems like Pin-terest.com or Flickr.com, just to mention a couple of examples.

20. When an actor gets a message that contains a spam word, it must be stored in the spam box instead of the input box.

21. Every time that an event is saved in final mode, the system must send a message to the clients who follows the club who the event is organized. The message must be written in both English and Spanish.

22. Every time that an event change its status, the system must send a message to the clients who participated in the event. The message must be written in both English and Spanish.

23. Events must be shown according to the following colour scheme: events that are AVAILABLE must be shown in green; events that are CANCELLED must be shown in red.

24. Every time that a club is accepted, the system must send a message to the manager of the club. The message must be written in both English and Spanish.

25. Tickers must adhere to the following pattern: "yymmdd-xxxxxx", where "yymmdd" refers to the year, month, and day when the corresponding entity is registered, and "xxxxxx" to a random uppercase alpha-numeric string. No two entities may have the same ticker since it's assumed to be a unique external identifier.

26. Phone numbers should adhere to the following patterns: "+CC (AC) PN", "+CC PN", or "PN": "+CC" denotes a country code in range "+1" up to "+999", "(AC)" denotes an area code in range "(1)" up to "(999)", and "PN" denotes a number that must have at least four digits. Phone numbers with pattern "PN" must be added automatically a default country, which is a parameter that can be changed by administrators. Note that phone numbers should adhere to the previous patterns, but they are not required to. Whenever a phone number that does not match this pattern is entered, the system must ask for confirmation; if the user confirms the number, it then must be stored.

27. Email addresses must adhere to any of the following patterns: "identifier@domain", "alias <identifier@domain>"; administrators may have email addresses of the form "identifier@", or "alias <identifier@>". The identifier is an alpha-numeric string, the domain is a sequence of alpha-numeric strings that are separated by dots, and the alias is a sequence of alpha-numeric strings that are separated by spaces.