

# Acme Dancer

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Acme, Inc. is a holding that encompasses many companies worldwide. One of them is Acme Dancer, Inc., which has specialised in managing dance academies.

The goal of this project is to develop a web information system that Acme Dancer, Inc. can use to run their business. This document provides an informal description of their requirements; ask your lecturers for clarifications and details.

## C-level requirements

### Information requirements

1. The actors of the system are academies and dancers. The system must store their names, surnames, and email addresses; optionally, it might also store their phone numbers and postal addresses. In the case of an academy, the names and the surnames refer to the person who manages them; the system must also store their commercial names.
2. Academies offer courses. For every course, the system must store a title, its style, its level, the start and end date, the day of the week and the time when it's organised. The style must be picked from an open taxonomy; the level can be either "BEGINNER", "INTERMEDIATE", "ADVANCED", or "PROFESSIONAL".
3. For every style, the system must store a name, and a description, plus some optional pictures and videos.
4. A dancer can apply for a course. The system must record the moment when the application is made, and the status, which can be either "PENDING", "ACCEPTED", or "REJECTED".

### Functional requirements

5. An actor who is not authenticated must be able to:
  1. Register to the system as an academy or a dancer.
  2. Browse the catalogue of academies and navigate to the courses that they offer.
  3. Browse the catalogue of courses and navigate to the academies that offer them.
  4. Browse the taxonomy of styles and navigate to the courses in which they are taught.
  5. Search for a course using a single keyword that must appear somewhere in its title or the name or the description of the corresponding style.
6. An actor who is authenticated must be able to:
  1. Do the same as an actor who is not authenticated, except for registering to the system.
  2. Edit his or her personal data.
7. An actor who is authenticated as an academy must be able to:
  1. Manage their courses, which includes listing, editing, or deleting them.
  2. Accept or reject a dancer's application regarding the courses that they manage.
8. An actor who is authenticated as a dancer must be able to:
  1. Apply for a course.
  2. List his or her applications.
9. An actor who is authenticated as an administrator must be able to:
  1. Manage the taxonomy of styles, which includes listing, creating, editing, or deleting them. A style can be deleted as long as it's not taught in any courses.
  2. Display a dashboard with the following information:

- The minimum, the average, the standard deviation, and the maximum number of courses per academy.
- The minimum, the average, the standard deviation, and the maximum number of applications per course.

## Non-functional requirements

10. The system must be available in English and Spanish. (The data themselves are not required to be available in several languages, only the messages that the system displays.)
11. The system will be run in Spain, so it must comply with the Spanish regulations except for the following ones: a) the requirement in LOPD regarding keeping files and communications secure and confidential (unless you opt to earn an A+, in which case you're requested to use the HTTPS protocol where appropriate); b) the requirement in LSSI regarding informing the Chamber of Commerce about your internet domain.
12. The system must be as efficient and difficult to hack as possible.
13. Phone numbers must should adhere to one of the following patterns: "+CC (AC) PN" or "PN", where CC is a two digit country code, "(AC)" is an optional area code that consists of up to three digits, and "PN" is a phone number that consists of at least 4 digits. Note that phone numbers that do not adhere to this patter must be rejected.
14. Pictures and videos are not required to be stored by the system, but to be available somewhere in the Internet; that is, they can be entered as URLs to sites like Flickr or YouTube.
15. The system must be pre-loaded with information about the following styles: salsa, mambo, bachata, pachanga, chá-chá, rumba, and kizomba.

## B-level requirements

### Information requirements

16. Academies can publish tutorials. For every tutorial, the system must store a title, a description, and a video.

### Functional requirements

17. An actor who can display information about an academy must be able to:
  1. Browse their tutorials.
18. An actor who is authenticated as an academy be able to:
  1. Manage their tutorials, which includes listing, editing, and deleting them.
19. An actor who is authenticated as an administrator must be able to:
  1. Display a dashboard with the following information:
    - The minimum, the average, and the maximum number of tutorials per academy.
    - The minimum, the average, and the maximum number of times that tutorials are displayed.
    - The listing of tutorials, sorted in decreasing order according to the number of times that they've been displayed.

## Non-functional requirements

20. Videos are requested to be played inline; that is, the engineers who work on this project must select the appropriate plugin to play embedded videos. Supporting YouTube is a

strong requirement; other video sites would be appreciated, but it's not a strong requirement.

## **A-level requirements**

### **Information requirements**

21. Actors may chirp. For every chirp, the system must store the moment when it's written and a piece of text that must not be longer than 140 characters.

### **Functional requirements**

22. An actor who is authenticated must be able to:
  1. Manage his chirps, which includes listing, writing, and deleting them. Note that once a chirp is published, it cannot be edited.
  2. Subscribe to the chirps that are published by other actors. The chirps must be shown in a stream that must be sorted according to their decreasing publication moment.
23. An actor who is authenticated as an administrator must be able to:
  1. Display a dashboard with the following information:
    - The average number of chirps per actor.
    - The average number of subscriptions per actor.

### **Non-functional requirements**

Intentionally blank.

## **A<sup>+</sup>-level requirements**

### **Information requirements**

Intentionally blank.

### **Functional requirements**

Intentionally blank.

### **Non-functional requirements**

24. The communications must be secured by using HTTPS where appropriate. A short report to explain how this A<sup>+</sup> has been implemented is required.
25. The system must allow to edit long pieces of text like descriptions using a rich text editor. It's recommended that TinyMCE be used, but other components are welcome. A short report to explain how this A<sup>+</sup> has been implemented is required.