

# Social Plan Management Application (SPM)

## *Target*

The objective is to develop an application for the organization of social plans among a group of users.

The application will allow users to create, join, rate and manage social plans, which consist of a series of consecutive activities.

An activity is a concrete action, such as, for example, "Going to the theater", "Going to the cinema", "Going for a walk in Madrid", "Meeting in a bar to discuss a topic", "Having a few beers", "A game of Padel" ...

## *Functional Requirements*

### User Interface

A CLI will be used. A CLI, or Command Line Interface, is a type of user interface that allows users to interact with a computer system through text commands typed on a command line. Instead of using a graphical user interface (GUI) with windows and visual elements, a CLI is text-based. Users enter commands and parameters using the keyboard and receive text responses on the screen. A CLI is not based on menus, but on commands that users must know the syntax of.

### User Registration

Users must be able to register on the platform by providing a username, age, mobile and password. The username and mobile must be unique. The age must be between 14 and 100 years old. The password must have a minimum of 3 characters. Users will be able to login and logout.

### Create Activities

Logged in users can create activities. There are three types of activities: generic, cinema or theater. Each activity must have a name, a detailed description of the activity, a duration in minutes, a cost and a capacity. The capacity is optional, and if it is not indicated, it will be considered unlimited. The theater activity has a 50% discount for young people (up to 25 years old) and a 70% discount for pensioners (from 65 years old). The cinema activity has a 50% discount for young people (up to 21 years old).

## Create or delete plans

Logged in users can create social plans. Each plan must have a name, a date and time, a meeting place, a maximum capacity of participants, and will consist of a set of sequential activities and a set of participants. The capacity is optional, and if it is not set, it indicates that there is no limit. When a user creates a plan, he/she becomes the owner of the plan and is the only one who can alter or delete it. When an activity is added to a plan, the capacity must always be equal to or less than the added activity, so it is possible that the capacity decreases as activities are added.

When creating a plan, the total time can be calculated by adding the times of each activity and setting 20 minutes of travel time between activities. You could also calculate the total cost for a given participant.

## List Plans

Logged-in users can view the list of available plans, including details such as name, description, capacity and current number of vacancies. Keeping in mind that they are always future plans.

In this query it could be sorted by the score of the old plans obtained (from the same owner) or by date.

## Join or leave plans

Logged in users can search and join existing plans. It is not allowed to join a plan if it has reached its maximum capacity of participants, or if it overlaps in time with another plan subscribed by the user. Nor can you subscribe to the same plan twice.

## Viewing the list of subscribed plans

Logged in users can check which plans they are subscribed to.

## Check the cost

Logged in users can check the cost associated with a subscribed plan.

## Three search queries

The logged-in users can perform 3 queries, of any type and with the filters that the developed user considers.

## General

There must be a high error control, not allowing the entry of commands with missing data, or incoherent or incompatible values. Specifically:

- Each time it creates, it must be controlled that the different data are within the established limits and that all the mandatory ones are present.
- That the capacity of a plan is always below the capacity of the activities that compose it.
- It is not possible to subscribe to two plans that overlap in time. Nor can you subscribe to a plan more than once.
- You may not subscribe to or drop out of a past plan.
- You cannot score a plan that you have not participated in, i.e., future plans or past plans that you have not subscribed to. You cannot score twice.