**Social-Desktop application**

**Users**

Three different types of users:

* Administrator (there is only one)
  + Authorize or reject a user
  + Ban users (its votes do not count) and unban them. If the user cannot enter because he is banned, he should be informed about that. When the administrator bans a user, we do not need to give any reason.
  + Approve projects, until it receives votes (it is pending), if it is not approved, he can give a reason of 50 chars.
  + He can see the projects he has created
* Registered users
  + When register:
    - Unique ID
    - Unique NIF (9 chars)
    - Password
  + They have a status.
  + Can see the usernames of others.
  + Can then become managers of groups (when they create them)
    - When a manger votes, it must be specified which group is he using
    - He receives notifications always; we can implement that he can unsubscribe
  + Can vote for projects, individually or as manager of a group. In this last case, the manager also votes for the members of the group. Because of this, users can have several votes, as user and as manager (representative) of a group.
* Non-registered users
  + They can only register, nothing more, they cannot see anything

**Groups**

* Structure of a group:
  + Name (unique), cannot be modified later
  + Name of the representative (creator)
  + (we can add a description)
* Groups are public
* We do not send messages in groups (There is no chat)
* Users can be member of any groups, but they have some restrictions:
  + Example of groups:
    - G1
      * G2
        + G3
    - A person cannot be a member of G1 and G2 or G2 and G3 at the same time. But, yes of G1 and G3 (If you want to join G2, you cannot be in G1 and G3)
* The person who creates the group becomes the representative of the group and this cannot be changed later, he cannot delete other users from the group, he is included in the subgroups of the group (always in)???
* A member can unsubscribe/remove the membership of a group
* We can make unlimited subgroups (groups inside another group)
* Everybody can see the groups of others
* A user can be the manager of several groups
* The manager of a group is the only one who can create new subgroups
* Users can subscribe and unsubscribe from groups.
* If the manager of a group gets banned, nothing happens (the group becomes useless). He will still be in their group description, because he could be unbanned in the future.
* There are notifications in the groups:
  + When a project is successful
  + The manager of a group receives them always, we can implement that he can unsubscribe, the rest of members must turn them on if they want to get informed

**Projects**

* Projects structure:
  + Two types of projects:
    - Infrastructure (Do something in a district we want to build)
      * Title (max 25 chars, projects can have same names)
      * User who has create it
      * District
      * Drawing
      * Project ID (received when founded)
      * Minimum number of votes
      * Amount of money they are requesting to create the project
      * Amount of money granted, after having achieved the minimum number of votes
      * Accepted or rejected by the city hall (like Boolean variable)
    - Social projects
      * National or international
      * User who has create it
      * Title (max 25 chars, projects can have same names)
      * Target (max 50 chars)
      * Project ID (received when founded)
      * Minimum number of votes
      * Amount of money they are requesting to create the project
      * Amount of money granted, after having achieved the minimum number of votes
      * Accepted or rejected by the city hall (like Boolean variable)
  + Description (max 500 chars)
* The user who creates the project becomes the proponent.
* Two ways for creating projects:
  + Individually
  + A representative of a group requests a project
* Two ways for voting projects:
  + Individually (this vote cannot be removed)
  + A representative of a group requests a project, then, also as member of a group (if they unsubscribe from a group, its vote is removed)
* There is a minimum of votes which is set by the admin (it is set by the administrator at approval time, then it cannot be changed), so that the project can go on
* The state of a project can be checked with its ID (unique) (only for the owner of the project)
* If a project does not have the minimum number of votes to get founded for 30 days since the project is approved by the administrator, it gets expired
* The minimum number of votes of a project, can only be seen by the manager of a group or individual users, once they have vote it
* When a project receives the minimum number of votes, the representative of the project submits it to an external organization, it is converted to an id and users can see how the project is using this id (rejected, approved, …)
* Votes are dynamic, if a group is supporting a project and it is added a new member it must be summed a vote, and the other way around, if someone unsubscribes or it is banned (same approach for individual votes), its vote is removed

**Reports**

* Two kind of reports:
  + Popularity reports
    - Can be seen only if the user is supporting the project
    - The report contains only the number of votes
  + Affinity reports
    - Number of common projects supported by groups
    - Only users who belongs to both groups can see them
    - They are calculated by doing the number of people that are in each group and support the projects founded by the other group, and the other way around. Then divide this number by the total number of users in both groups. (N12+N21)/(N1+N2)

**General notes**

* We search projects (the owner can check the status with the ID) and groups by name
* We can log out
* If the user fails when logging in, we have to give the reason