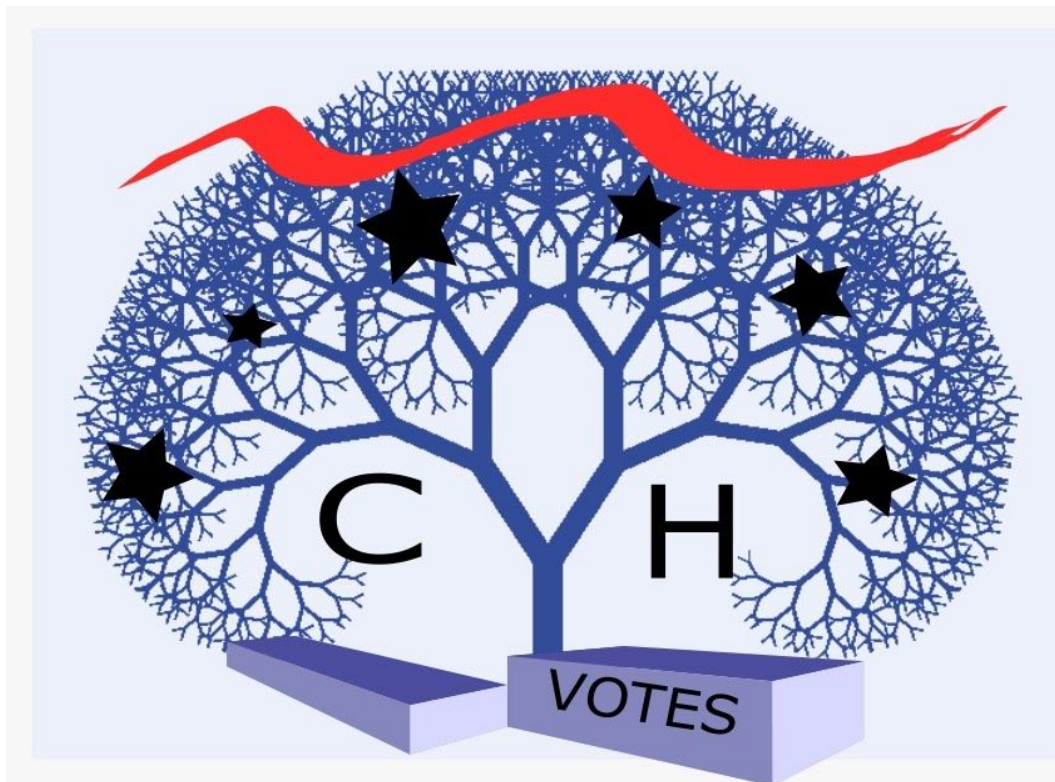


Requirements Analysis Document

Application: **CHVOTES**



Date: <06/02/2020>

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1. Introduction

1.1 Purpose of the system

The proposed application is CHVOTES , an application that give us information and let us decide about the project's that will be developed in our city in the following years .

Citizens, which have to be registered in the app, can eider create/join groups or propose/vote projects, those projects are voted by the registered citizens. When a project reach the threshold of votes imposed by the admin, the creator of the projects can choose between sending it to the town hall or wait more in order to obtain more votes, then the city hall decide if the project is approved or not.

1.2 Scope of the system

CHVOTES is going to allow us decided about our future in a very easy and interactive way, it is and application that gives us the opportunity to decide about our neighborhood and its future.

1.3 Objectives and success criteria of the project

- Promote different projects to improve our city
- Achieve a better communication flow between Government and people
- Improve citizens participation
- Get in touch with different people with similar hobbies

1.4 Definitions, Acronyms, and abbreviations

- Group: Association of users with same hobbies
- Group Manager: Is the representative of the group and can vote in name of all members of the group
- User: Are the citizens that wants to vote projects, join or create groups and create or vote projects
- Admin: Is the super user of the application, he has all the power and can do things like put a threshold to projects, denie a project, ban users...
- Projects: Are the citizen's proposals that are going to be voted, there are two types:
 - Infrastructures: Projects based in constructions like parks, banks, skateparks...
 - Social: Altruist projects to help others.
- Votes: It is the way to express the opinion of users
- Similarity Report: Level of affinity between two different groups, it follows this formula:

Similarity (%) = (number of projects of group 1 supported by group 2 + number of projects of group 2 supported by group 1) / number of project of the application

- Popularity Report: When you have voted a project you can ask for a popularity report that contains the actual state of the votation



2. System Description






2.1 Functional Requirements

- Application:




- The admin defines a threshold of votes for the projects the first time it registers
- When projects reach threshold they can be send to the government by the owner
- Projects and group lists are available in the main page
- Not external notifications

- Groups:

- Created by users
- The creator is the owner
- Designed by name and user founder (boss)
- Users can join or leave
- There can be groups inside groups (same field) 
- In te amount of users in each group
- Infinite number of groups
- If a group's owner leaves the group, a new user from the group is chosen randomly to be the new owner 
- Users can request Similarity reports between two group selected by them 
- When an owner of a group votes for a project, the project receives the number of votes equal to the number of members of that group 

- Projects:

-Projects have:

Name 

Extensive description

Type: Infrastructure and social

Budget (No limit)


-Infinite number of projects

-They first have to be approved by the admin

-Each user can vote only once for each project anonymously


-Popularity reports are available when voted

-Votes cannot be removed

-If a project is no voted in a month it gets deleted 

-Users can subscribe to the project:

Threshold pass notification

 Government approves

Reach end date with no votes

-When a user votes to a project, it gets automatically subscribed

- Users:

-Types:

Not logged (Can only register)


Admin


Registered (Citizens)


-Admin can:

Delete any group

Delete any votation

Reject projects at any moment 

Ban users 

-Users are identified by name password and dni 

2.2 Non-functional Requirements

- English
- Running in a single Machine
- Runs in any O.S.
- Users belong to the same city
- The information of the program has to persist in the Hard Disk
- It must have an intuitive interface



3.2 Use case descriptions

3.2.1 Use Case: Create a group

Primary Actor: Registered User

Stakeholders and Goals:

- Registered User: To create a group in order to organise people that share the same hobbies

Preconditions:

The user is identified and authenticated, and he wants to create a group.

Success guarantee (Post-conditions):

The group has been created and added to the list of groups, with its corresponding name and description.

That user becomes the representative of that group.

Main Success Scenario:

1. The user Logs in
2. Starts creating a group
3. Adds the attributes of the group (Title, Description)
4. The group is created and added to the list of groups
5. The user becomes the representative of that group

Extensions (Alternative paths):

- The name of the group has been already used for another group
 - The user will be notified that the name has already been taken and he will have to chose another one.

Special Requirements:

- Quick response and update (<0.2sec) to create the group and insert into the list of groups.

Frequency:

Regular, in the order of the amount of users.

Open Issues:

There are no problems for the moment.

3.2.2 Use Case: Setting a threshold

Primary Actor: Administrator

Stakeholders and Goals:

- Administrator: The first time the admin logs in, he/she will set a threshold that every project will need to surpass in order to be submitted.
- Registered Users: The project created by a user will need to surpass the threshold set by the admin in order to be able to send it to the city hall.


Preconditions:

The administrator is identified and authenticated for the first time and wants to set up the threshold.

Success guarantee (Post-conditions):

The threshold has already been set, so every project will need to take that into account. The app will not allow the creator of the project to send it if the threshold has not been surpassed.

Main Success Scenario:

1. The user  logs in as an administrator for the first time
2. The administrator sets the threshold
3. Every project will count with that threshold in order to submit it

Extensions (Alternative paths):

- The administrator introduces a threshold that does not fulfill the condition of being a positive integer (letters, negative values...)

Special Requirements:

- Quick response and update (<0.2sec) to set the threshold and adding it to the app.

Frequency:

Only once, the first time the administrator logs in.

Open Issues:

There is not an option available for the administrator in order to change the threshold.

3.2.3 Use Case: Creating a project

Primary Actor : Registered User

Stakeholders and Goals:

- Administrator: He/She accepts or denies the project when the registered user presents it.
- Registered Users: Either a group representative or any registered user can propose a project filling a form.


Preconditions:

The user is identified and authenticated, then is able to create a project with name and description, type and budget.


Success guarantee (Post-conditions):

The project has been correctly created and accepted by the administrator, from this point forward the registered users are able to vote. When the threshold is surpassed the creator of the project can either present the project to the city hall or keep it receiving votes.

Main Success Scenario:

1. The user logs in
2. The registered user creates a project
3. The project is either accepted or denied by the administrator
4. If it is accepted it can start receiving votes
5. When the threshold is surpassed the creator can either sent it to the city hall or let it receiving more votes. 
6. Once it has been sent to the city hall, is either accepted or denied

Extensions (Alternative paths):

- The name of the project has been already used for another project
 - The user will be notified that the name has already been taken and he will have to chose another one.
- If the project does not receive votes in 1 month, it gets automatically deleted 

Special Requirements.

- Quick response and update (<0.2sec) to create the project
- Undefined time until the admin logs in and accept or denies the project
- Undefined time to obtain the votes (considering the 1 month period of no votes)
- Undefined time until the creator of the project sends the project to the city hall (once surpassed the threshold)
- Undefined time to receive the response from the city hall.

Frequency:

An undefined fraction of the total number of users

Open Issues:

We have not encountered any issues at the time.

3.2.4 Use Case: Affinity report

Primary Actor : Register User

Stakeholders and Goals:

- Register User: The users can request an affinity report between two groups following the formula:

$$(\text{number of projects of group 1 supported by group 2} + \text{number of projects of group 2 supported by group 1}) / \text{number of project of the application}$$

Preconditions:

The user is identified and authenticated and he wants to request an affinity report between two groups.



Success guarantee (Post-conditions):

The user requests the affinity report and it is automatically generated and delivered to the user.

Main Success Scenario:

1. The user Logs in
2. The user requests the affinity report by selected two different groups
3. The affinity report is generated and delivered to the user

Extensions (Alternative paths):

- The user asks for an affinity report of 1 or more than 2 groups
 - The user will be notified that the he can only request affinity reports for two groups.

Special Requirements:

- Quick response and update (<0.15sec) to ask for the affinity report, generating it and giving it to the user.

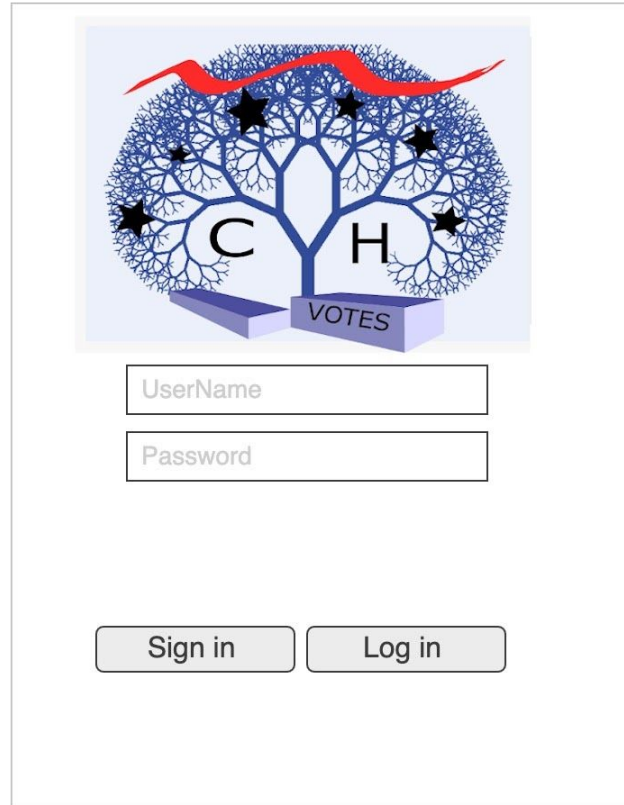
Frequency:

Low frequency, not many requests.

Open Issues:

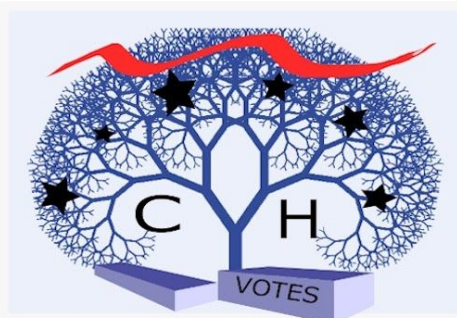
Depending on the implementacion, an error may occur if selecting the same group both times.

4. Mockups



This first mockup represents the initial screen that will show up when opening the application. In the top part we can observe the application logo, right underneath we can see the field that a registered user would need to fill up, this plus the “Log in” button would redirect the user to the “Home” screen.

If the user needs to register, he will click the “Sign in” and will be redirected to the following screen:



UserName

DNI

Password

Reintroduce your password

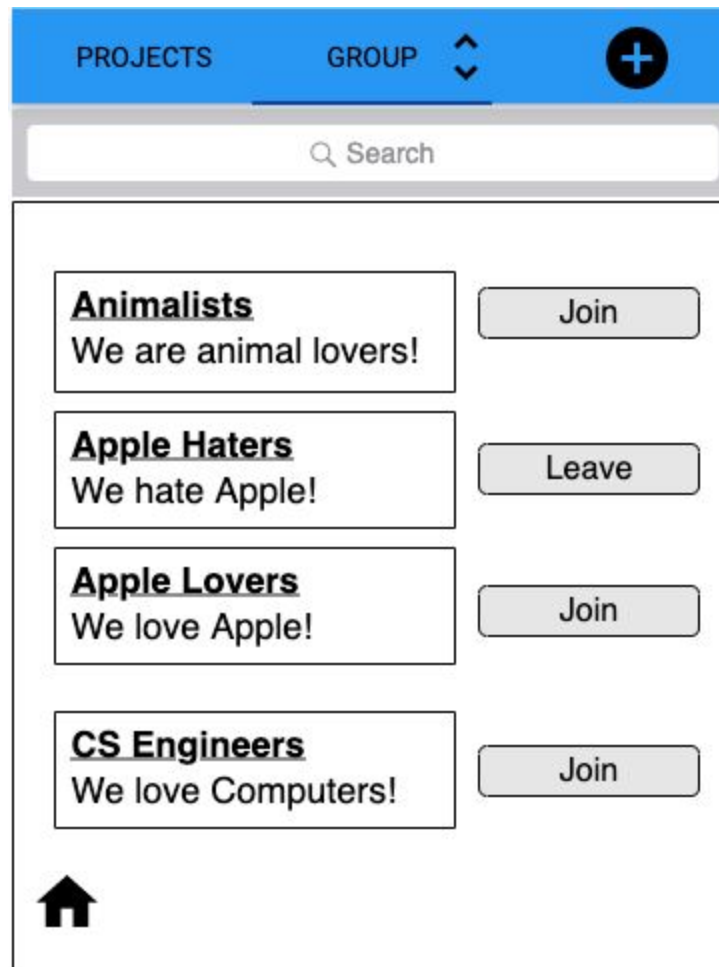
Sign in

This represents the “Sign in” screen, where the non-registered user would need to fill up the fields in order to create an account in the application. Right after filling them, he would be redirected again to the “Log in” screen, and log in with his new account.



This mockup represents the home window for a registered user. In the main screen the user can see a control spinner that allow him to make a selection between his groups, the groups he has joined, his created projects, or all the projects he has voted. Depending on the selection, different aspects will show up in the screen. In the first case, “Groups” will allow the user to see a list of all the group he belongs to, next to a “leave” button that would result in exiting that group. The “MyGroups” is equal than the previous one but instead of showing the groups that the user belongs to, it shows the groups that the user has created. The “MyProjects” option is similar to the previous one, but with the user’s projects (those that he has created), if the threshold has been surpassed a button will allow him to send the project to the city hall. At last, the “Projects” option allows the users to ask for popularity reports of the project he has voted.

In the top bar, the buttons of “Group” and “Project” will redirect the user into the following screens, respectively.

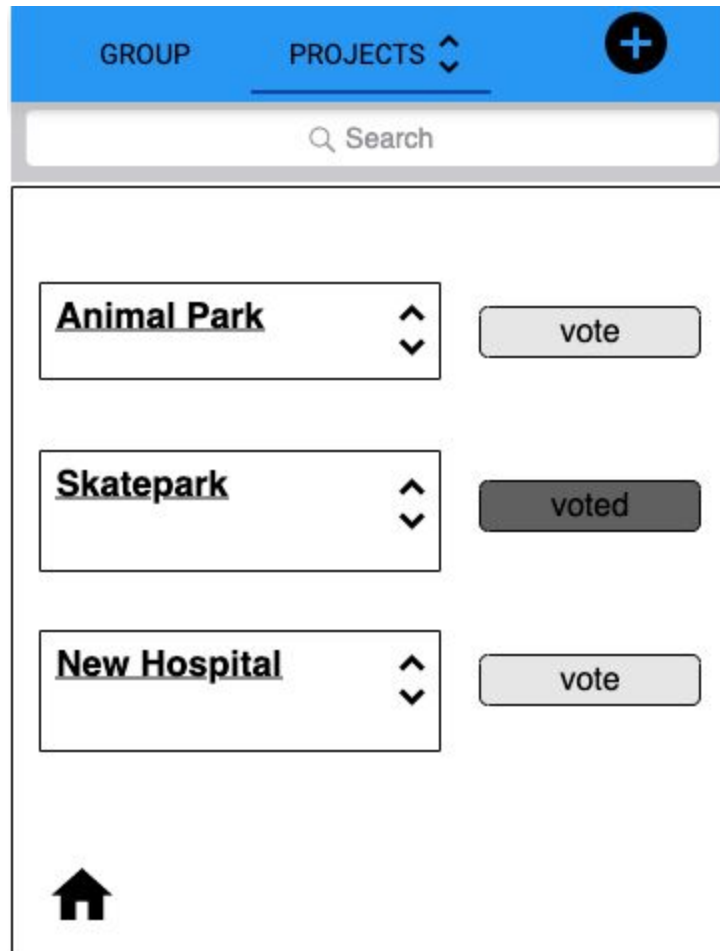


In the “Groups” option accessed from the “Home” window, we firstly see a list of all the group available in the application next to the “Join” button in order to join the group or the “Leave” button if the user is already inside the group. There is also a search bar to look for the existence of an specific group.

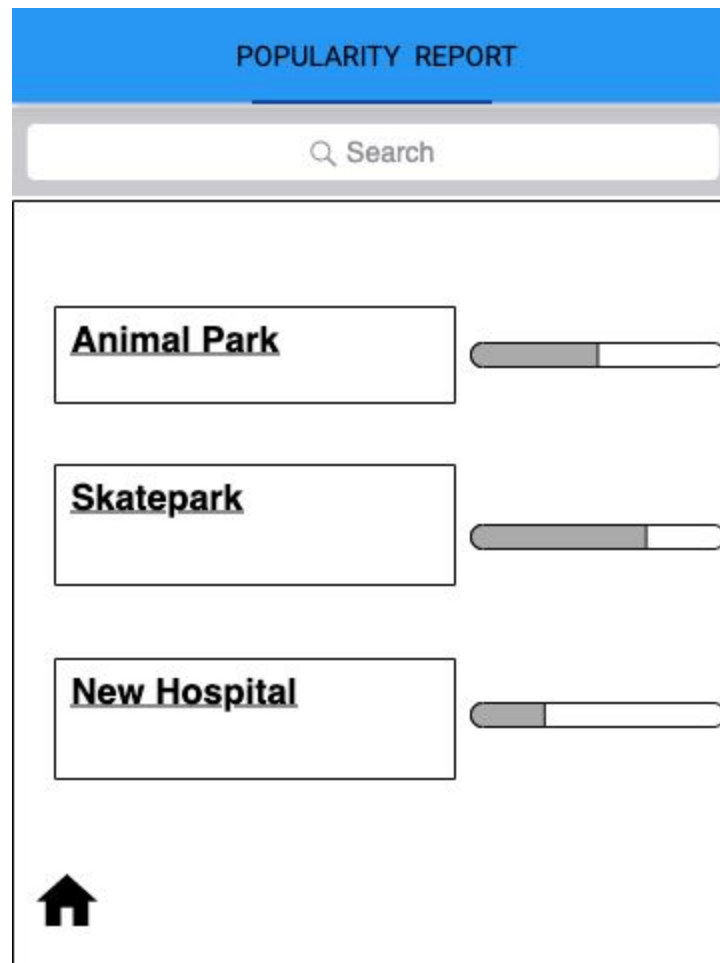
The image shows a mobile application interface for creating a new group. At the top, there is a blue header bar with the word "PROJECTS" on the left, a central black circle containing a white plus sign "+", and the word "GROUP" on the right. Below the header, the main content area is white. It features two text input fields: the first is labeled "Name of the group" and the second is labeled "Description". Below these fields is a grey button with the text "Create". Underneath the "Create" button is a yellow square icon with a white speech bubble inside. In the bottom-left corner of the main content area, there is a black house icon representing the home screen.

In addition, it exists the options of creating a new group by clicking into the “+”, that asks the user for the group’s name and description, when written, the user can create it with the “create” button.

Furthermore, the buttons for going back to the “Home” and “Projects” windows are available.



In this project mockup there is a list of all the projects that are available for voting, plus those which has already been voted. For these, in the spinner, we can click in the popularity report button in order to see how many votes a project has.



This is the screen that corresponds to the popularity report we just talked about. Always with the “Home” button.

The image shows a mobile application interface for creating a new project. At the top, there is a blue header bar with the word "GROUP" on the left, a central black circle containing a white plus sign "+", and the word "PROJECTS" on the right. Below the header, the main content area is white and contains four input fields stacked vertically: "Name", "Description", "Budget", and "Type". The "Type" field is a dropdown menu with a small downward arrow on its right side. Below these fields is a yellow square icon with a white speech bubble inside. In the bottom-left corner of the screen, there is a black house icon representing the home button.

In the “+” button, we can create a new project, just like the groups, the user will need to fill up the required fields in order to create a new project. As in any other screen, the “Home” and the “Group” button are available.

The image shows a web application interface for an administrator. At the top is a blue header bar with a black house icon in the center. Below the header is a white content area. In the upper part of the content area, there are three stacked rectangular boxes acting as tabs, labeled 'Projects', 'Users', and 'Threshold'. The 'Projects' tab is currently selected, indicated by a small downward arrow on its right side. Below these tabs, there are two project entries. Each entry consists of a text box on the left and two buttons on the right. The first entry has the text 'Animal Park' in the text box, followed by 'Accept' and 'Denie' buttons. The second entry has the text 'New Hospital' in the text box, followed by 'Accept' and 'Denie' buttons. The buttons are light gray with black text.


This represents the “Home” page from an administrator account. A list of all created projects that have not been either approved or decline yet appears, for the administrator to do his action.

Furthermore a spinner is available to swap this screen with a “Users” one and “Threshold”. The first one shows a list of all the users, with the option to ban them with the “Ban” button, the second one allows the administrator to set the threshold for all the project, but just the first time he logs in.

AFFINITY REPORT

Affinity 68%

<u>Animalists</u> We are animal lovers!	<input checked="" type="checkbox"/>
<u>Apple Haters</u> We hate Apple!	<input checked="" type="checkbox"/>
<u>Apple Lovers</u> We love Apple!	<input type="checkbox"/>
<u>CS Engineers</u> We love Computers!	<input type="checkbox"/>



The affinity report window is accessed from the group window spinner. It allows the user to select two different groups, and a percentage, obtained by the formula we explained before, will appear on top of the groups.