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Server Manager

Stage 2 : User and Task Analysis

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Problem

The main situation of our project is based on creating an application (rather, an interface), that allows a much more freely and facilitated control and manipulation of multiple servers.

User Analysis

The application is directly assembled for clients who are in charge of managing several servers at the same time, either worldwide servers (internet usage, browsers), or a more discrete, private servers within a company (data banks). With the use of the project we are working on, the work is facilitated and allows an ease manipulation and control of the user´s servers at will.

Task Analysis

Manipulation of created servers:

Direct change of specific details:

- Type of the server: Web server, mail, real time communication server, FTP, application, database;
- Name of the server;
- Localization (currently) : IP, port, http address;
- Administrators;
- Various server hosts that the application is able to monitor and control.
- Time given
- Accessibility
- Capacity
- Status condition

Control of the amount of resources properly enabled for use by the server (small note to take in consideration money, energy, among other factors who are not to be included in the application for the purpose of the work), and the ability to manipulate the server´s online status.

Create a server:

Same as for the direct manipulation of a previously existing server, with the proper statement of each variables and conditions, along with the obvious fault proof system to start the server as offline (to prevent unnecessary fatal crashes on the startup).

Remove a server:

Completely removes all information of a server, including relocating the resources applied to it onward to more in need servers. First, the server needs to be offline (to avoid problems with severe disconnections and even vital data loss that might be wished to be saved for future use), following afterwards with a slow yet cautious clean up of the data reserved to it (with the exception of backups if requested).

User´s list of each server:

Provides a simplified list of all users currently in use of a specified server (online), including their data (simplified as well), notoriously their basic identification information and their access rank privilege (admin, normal user), along with a small Boolean to represent any bans attached to each user.

Server´s status report:

Offers a report of a server, focusing primarily in its current capacity, stability and time limits impinged to it. It has no pre-conditions as the user can ask for a report either if the server is online or not. An urgent note will be left if the server´s capacity currently is in state of overload (n users >

capacity). Otherwise, it will give a small notification as it slowly increases, along with a warning for the time limit if such exists. It also creates and saves a log witch each disconnection occurred over the span of the day/week/month/year registered.

Ability to group servers based on subject:

A small interaction within the application mainly for aesthetic purposes, it servers the purpose to aid the user in his control of the servers, separating them in different tabs and group them up at his own accord.

HTML:

A console private to each server created mostly used for straight and direct interactions and information manipulation within the server. Depending on the command given, it may or may not be essential that the server is offline to see the results.

Task Scenarios

Scenario 1:

- The main user (CEO) creates a server.
- Gives an initial capacity of 100 max users available and puts the server online.
- It's a basic web server and yet the status report immediately gives an urgent note on how the server is almost overloading.
- After a few modifications with the html console to optimize the consumption, along with extending the server´s capacity, the note is erased.
- The CEO opens the list of users and sees a steady income of in and out connections, along with good stability according to the new report.

Scenario 2:

- The CEO logs in.
- The CEO turns on a few servers at his choice.
- He notices that one of the servers is overloading and needs attention.
- He proceeds to turn off the server in question and decides to remove it completely.
- After removal, he creates 2 new servers related directly to the previous removed one, with increased resources.
- In another server, he puts a few logged in users banned due to a small note in the html console of unexpected behavior.

Scenario 3:

- A new user registers.
- With a clean state, he creates his first server, along with the necessary modifications.
- He creates another one and puts both of them together in a created bin referencing as “Initial Tests”.
- The user asks for status report of each of the newly created servers and then puts them offline.