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Quality Attributes

| ID | Quality Attribute | Scenario | Associated Use Case |
|----------|----------------------|---|------------------------------|
| QA- 1 | Performance | An error occurs within the system and causes it to crash. The server will continually attempt to restart on the last available backup and move onto the next if the one chosen still contains the error. The server should be able to resume operation within 1 minute. | All |
| QA- 2 | Availability | The hosting server is sent a heartbeat every 10 seconds and awaits the response from the server during normal operations. Depending on if the return time of the heartbeat is, the status of the server is determined to be responsive or not. This ensures little to no downtime on the server. | All |
| QA- | Modifiability | The user updates their profile with new information and projects that they've done within the server during normal operation. After these updates are made, the server's database is updated as well to ensure consistency among the entire server. | UC-6 (Share Post/Project) |
| QA- | Interoperability | When a user connects to the server, the server exchanges information with the user under normal operating conditions. The user must present an OS of either Windows, OSX, or Linux, along with a browser that is either (Chrome V3.0+, Firefox V4+, IE8+). If the server reads the user information and discovers that one of these conditions are not met, the user is told "Your operating system or web browser doesn't meet our specifications" and isn't granted access. | All |

| QA- 5 | Usability | A user is able to upload information about themselves to create a profile within the server during normal operation. The user will send the data to the server which will be checked for any inappropriate words or phrases, then uploaded to the database. Any other user should be able to see the changes made when reviewing the user's profile within 1 minute of uploading. | UC-6 (Share Post/Project) |
|----------|-----------|---|------------------------------|
| QA- 6 | Security | A user contributes to a project that they are collaborating with others on within the server during normal operation. The ability to see who and when the change to the project happened is able to be seen any time by a certain user group. | All |
| QA- 7 | Security | When a user creates their account, their password should be encrypted before saving it to the database. The reason behind this QA is that the database maintainer should not be able to access any user's password in the database | UC-1 (registration) |

Figure 1.1.2

Constraints

| ID | Constraint | |
|-----------|---|--|
| CON- | A user isn't able to create a collaboration project with only themselves. | |
| CON- | The network connection to user's machines may be low bandwidth, but must be reliable. | |
| CON- | Any changes to projects, profiles, or any other user change on the machine must be recorded. | |
| CON- 4 | The server must be accessed using one of the following web browsers (Chrome V3.0+, Firefox V4+, IE8+) and the only acceptable platforms being Windows,OSX, and Linux. | |
| CON- 5 | Any event that takes place within the last 30 days must be recorded. | |

Figure 1.1.3

Concerns

| ID | Concern | |
|-----------|--|--|
| CRN- 1 | Accomplish completion of the final system in the allotted time and resources. | |
| CRN- 2 | Evenly distribute the workload within the project across the development team to fu utilize the team's capabilities. | |
| CRN- | Creating the first prototype model of the system's structure. | |