SE 3XA3: Software Requirements Specification
Red Discord Bot

Team #31, R-DB V2
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December 4, 2018

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Table 1: **Revision History**

Date	**Version**	**Notes**
Oct 4,2018	1.0	Project Drivers, Scope
Oct 5,2018	1.1	Added individual use case diagram and function requirements
Oct 5, 2018	1.1	Added Requirements, cost, risks, user documentation
Oct 16, 2018	1.2	Added more requirements, off-the-shelf solutions, new problems, tasks
Dec 04, 2018	2.0	Prepared for final submission

This document describes the requirements for software project R-DB V2 for McMaster University 3XA3 FALL 2018.

The template for the Software Requirements Specification (SRS) is a subset of the Volere template (**?**).

1 Project Drivers

1.1 The Purpose of the Project

Discord is an application which allows people to host and connect with numerous people into a single community over the internet. In these communities, they are able to communicate with each other by talking or typing in text. Oftentimes these communities grow to have over hundreds of persons and the need for community moderation becomes exponentially difficult. The purpose of R-DB V2, is to provide a means of automating commands to moderate the community, enforce rules, and provide community interaction.

1.2 The Stakeholders

1.2.1 The Client

The client of our product is McMaster University who will be the constantly reviewing R-DB V2 and providing guidance to properly document and redeploy the program.

1.2.2 The Customers

The customers of our product are Discord community moderators and owners. The typical owner and moderator would be persons who oversee a large community with numerous members. It is assumed that owners and moderators are looking to automate certain tasks and provide additional functionalities to their community.

1.2.3 Other Stakeholders

Other stakeholders include Discord inc. who will be providing the framework, environment and API to integrate the R-DB V2 program. They are interested

in the success of this project as the bot will provide additional user interface and features to the Discord application.

1.3 Mandated Constraints

Description: The product shall run on the Discord applcation API and software
Rationale: The product is an additional feature intended for the Discord application
Fit criterion: Our bot will be available to all users who use the Discord application

Description: The product shall only operate when connected to the internet
Rationale: Discord is an online server voIP and thus the product will also be dependant on internet connection
Fit criterion: The product shall only operate if an internet connection is present

1.4 Naming Conventions and Terminology

- Bot, Autonomous computer controlled program
- VoIP, Acronym which refers to Voice over Internet Protocol. Methodology of communication.
- Discord, The VoIP platform that is used for the bot.
- Host, Store a website or data on a server or other computer so that it can be accessed over the internet.
- Input, User typed in input into Discord community chat.
- Song request, to request the bot to play a particular song
- Moderate, Administrative duties to maintain community rules and integrity
- Kick, to completely remove a user from a community indefinitely

- ban, to place restrictions on a user in a community indefinitely
- softban, to place a ban for a short time
- stream, to broadcast realtime

2 Functional Requirements

2.1 The Scope of the Work and the Product

2.1.1 The Context of the Work

Project is to produce a Discord bot that is able to automate built-in Discord interfaces and provide additional features. Project is expected to be completed by Winter 2018. The exact details for milestones and goals is under the Development Plan and associated Gantt Chart.

2.1.2 Work Partitioning

Group members are expected to equally contribute. Work tasks will be discussed and partitioned on a meeting-by-meeting basis. Work tasks will be generated on a weekly basis based on goals within the most current Gantt Chart and Development Plan.

2.1.3 Individual Product Use Cases

2.2 Functional Requirements

- FR1: The bot shall be able to handle music requests from YouTube
- FR2: The bot shall be able to perform chat cleanup and filtering
- FR3: The bot shall allow users to search for images on Imgur and send them in the channel
- FR4: The bot shall create a platform where users earn experience points for participation and level up

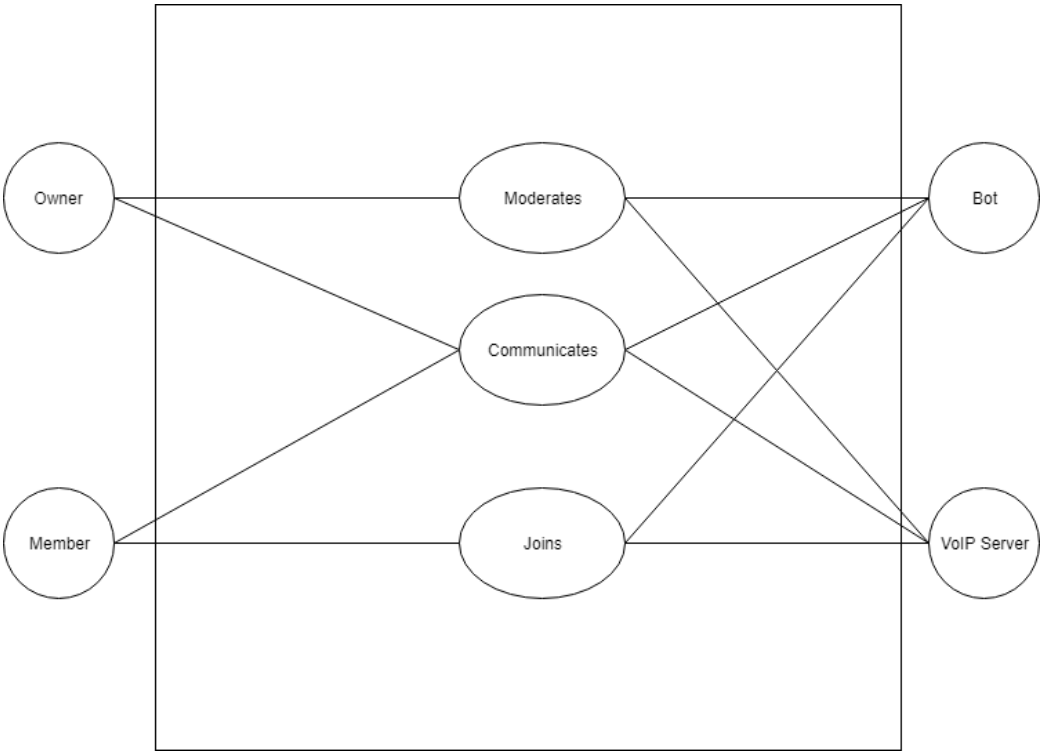

Figure 1: Use Case Diagram

3 Non-functional Requirements

3.1 Look and Feel Requirements

Not applicable, since system being built does not have a GUI.

3.2 Usability and Humanity Requirements

- The software must be simple enough for a person age 12-65 in able condition to use all the features provided and to understand them.
- The user will need to be provided with a list of commands to use
- There is no crucial error rate that will affect the functionality of the software.
- The software will use symbols and words that are understandable to the user community.
- All commands will begin with "!"

3.3 Performance Requirements

- Any interaction between the user and the product will have a maximum response time of 5 seconds.
- The product will not incur time delays of more than 5 seconds.

3.4 Operational and Environmental Requirements

3.4.1 Expected Physical Environment

The software is expected to run on any device that Discord is available on.

3.5 Maintainability and Support Requirements

- The source code will be available to the public on GitLab, to open up the room for more people to maintain it.

- Documentation and comments will be utilized to help programmers understand how the source code work and make it easier for them to add new functionalities for the software.

3.6 Security Requirements

- The software must be protected from unauthorized attempts to read and/manipulate the user's data
- The software must not be withholding any data the user did not consent to release.

3.7 Cultural Requirements

- The product will not utilize any content (images, text, video, other media) that is considered offensive.
- The product will not be offensive to any ethnic groups
- The product will not be offensive to any religious groups
- The cultural requirements will be upheld by Imgur and Youtube's own community standards policies

3.8 Legal Requirements

- The software will comply with all details entailed with regards to licensing
- All copyright conditions and obligations enforced by law will be met

3.9 Health and Safety Requirements

Not available

4 Project Issues

4.1 Open Issues

- Images modules needs to let users see the image before sending it

4.2 Off-the-Shelf Solutions

There are many publicly available Discord bots with many similar functionalities to the product we are creating. Similar bots include MiBro, AnthBot, and The Bastion Bot. Many of the aforementioned bots contain components that would be helpful to study for our implementation.

4.3 New Problems

A potential problem would be people using the bot to spam the chat. Taken into consideration that the bot displays images and plays music, some users can use those features to spam the chat.

4.4 Tasks

The tasks for this project must follow the deliverables for Software Engineering 3xa3. Additional tasks were decided on by the group members.

4.5 Migration to the New Product

4.6 Risks

- Excessive schedule pressure – due to reimplementation of various aspects of the product that are of significant value.

4.7 Costs

No additional cost will be incurred by the developers nor the users to use the product and all the offered features.

4.8 User Documentation and Training

User will be provided with introductory documentation to explain the operability of the software to get user started, no additional training will be required.

4.9 Waiting Room

NA

4.10 Ideas for Solutions

5 Appendix

This section has been added to the Volere template. This is where you can place additional information.

5.1 Symbolic Parameters

The definition of the requirements will likely call for SYMBOLIC_CONSTANTS. Their values are defined in this section for easy maintenance.

NA