Team 6 Iteration 1 Documentation

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Project Plan

Project Description

Spamfoo is a helpful Discord bot which will interpret user queries in the form of math equations and return solutions for those equations in the form of images. As this project develops, the functionality of Spamfoo could potentially be expanded to satisfy user feedback.

Vision Statement

To provide students with an easily accessible and intuitive math assistant.

Development Plan

Iteration 1: 14 February 2022

A public Discord bot should be available and accessible.

Iteration 2: 7 March 2022

The bot should be able to receive user queries and translate them into website requests.

Iteration 3: 4 April 2022

The bot should be able to return user queries.

Final Deliverable: 25 April 2022

The bot should be able to maintain multiple user requests in rapid succession and function across multiple servers

Risks

Time Management and Scheduling

Description: All group members have different schedules which conflict with each other. This makes scheduling group meetings and checking on scheduled progress difficult.

Mitigation: There is a scheduled meeting every week which shall be observed, even if other meetings are not kept. Each member is responsible for their own time management to complete their work.

Probability: 90%

Effect: 3 hrs

RE: 90% \* 3 = 2.7 hrs

Limited Experience

Description: Group members have limited experience with Discord bots and regex for web queries.

Mitigation: Have a group member specialize in each area we have weakness in, requiring self-directed study.

Probability: 80%

Effect: 3 hrs

RE: 80% \* 3 = 2.4 hrs

Specification

Inputs

User-Query as a string of text

Outputs

Result from the internet as an image

Key Data Structures

RegEx Structure for translating User-Query to a valid web search

MoSCoW Requirements

Must Have: Text input. Image output. Internet query.

Should Have: Help commands.

Could Have: Stylistic linguistic patterns to encourage user engagement. Sample questions for users to practice.

Won’t Have: Image input.

Design

Ideal Cases

Graphical user interface, text

Description automatically generated Graphical user interface, application

Description automatically generated

 Graphical user interface, text, application

Description automatically generated

Failed Request

Text

Description automatically generated 

 Text

Description automatically generated

Storage  
User queries will not be stored. Interactions with Spamfoo will be recorded in the host server of the request which will be moderated by the members of the server in question.

Code and Tests

Code

Text

Description automatically generated

Test Cases

|  |  |  |
| --- | --- | --- |
| Description | Expected Outcome | Actual Outcome |
| The user inputs a valid query. | Spamfoo searches the query and returns an appropriate and correct answer. | N/A |
| The user inputs an invalid query. | Spamfoo returns a plain text message explaining that the user’s input is invalid. | N/A |
| A new server attempts to implement Spamfoo as a bot. | Spamfoo should join that server and execute queries from that server appropriately, | N/A |

Code and Document Repository

https://github.com/banditsbeware/ooproject

Customers and Users

Users

As engineers ourselves, we envision that our customers will likely be fellow engineering students.

Feedback

As we are in the early stages of development, we have not received feedback on our project at this time. We will be seeking feedback from our peers as functionality is implemented.