Tech Demo Flight Plan

JabberJack

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CS Capstone Design

Technical Demo Grading Sheet (100 pts)

TEAM: JabberJack

Overview: The main purpose of the "Technical Demos" is to very clearly communicate the extent to which the team has identified key challenges in the project, and has proven solutions to those challenges. Grading is based on how complete/accurate the list of challenges is, , and how convincingly and completely the given demos cover the given challenges.

This template is fleshed out by the team, approved by CS mentor, and brought to demo as a grading sheet.

Risky technical challenges

Based on our requirements acquisition work and current understanding of the problem and envisioned solution, the following are the key technical challenges that we will need to overcome in implementing our solution:

C1: Authentication & Security: The challenging part will be implementing a password hashing technique that can correctly save user information without storing the raw data. The security needs to have enough "camouflage" so that the passwords cannot be taken. The demo needs to show that a user can log in and that the system will not let others log in. We need to display that the login system has the ability to allow authorized users in (authentication) and keep out malicious actors that should not have access to the system (security).

C2: String-Searching Algorithm: The challenge here is to find the relevant answer corresponding with the user input question. The algorithm needs to be able to search quickly so that user questions can be answered within 5 seconds; the challenge most relevant here is the speed of search. This is really the only goal and challenge of the search algorithm.

C3: User Interface: The user interface needs to be intuitive and users need to be able to understand how to work it without any knowledge of the technology. It needs to contain elements that can be understood easily and quickly as a user should not have to sit there for several minutes trying to figure out how to work the software.

Challenges covered by demos:

In this section, we outline the demonstrations we have prepared, and exactly which of the challenge(s) each one of them proves a solution to.

Demonstration 1: Authentication & Security

<u>Challenges addressed:</u> The main challenge addressed in this section of the demo is the login capabilities so that the database is protected behind a login screen. The other challenge addressed here is the ability of the login page to keep unwanted users from accessing the database.

- Authentication of users
- Security of the database (showing that non-authorized users cannot access the database)

<u>Flight Plan:</u> Step by step overview of demo

1. First the demo will begin at a login screen with basic login elements (username, password fields)

2. Then there will be two credentials visible; one will be an allowed user the other will not be allowed to access the database the latter will be "fake" user credentials.

3. Then the allowed user credentials will be typed into the username and password fields

4. Then selecting enter the system will give a green check and then (theoretically) allow the user access to the database

5. Then we'll come back to the login screen and enter the credentials of the disallowed user

6. Upon entering the unallowed user credentials the system will output a statement saying "user is unable to login"

<u>Evaluation:</u>

- Convincingly demoed each of the listed challenges?

- Other evaluative comments:

Demonstration 2: String-Searching Algorithm

Challenges addressed: The algorithm needs to return answers within a timely manner here we will address:

- The time it takes the algorithm to find and return answers from the database
  - At or under 5 seconds

Flight Plan: Step by step overview of demo

1. Firstly, load the saved database of QA

2. Secondly, JabberJack will input some long questions, and utilize the python library "time"

3. to record the search time

4. Last, return the relevant answer and the search time to the user (just for reference)

Evaluation:

- Convincingly demoed each of the listed challenges?

- Other evaluative comments:

Demonstration 3: User Interface

Challenges addressed: The main challenge addressed in this section of the demo will be the general User Interface capabilities. The main challenge will include but is not limited to being able to traverse the User Interface with no problems.

- Chatbot Side
  - Chatbot input section
  - Submit button to confirm input is complete
- Administration Side
  - Question input
  - Answer input
  - Enter Button

Flight Plan: Step by step overview of demo

Chatbot Interface

1. The core elements of the User Interface will include a text box to input a question into, and a submit button next to it to signal the chat if the user's question is ready.

2. Next the user will receive an answer to the given question.

3. The chatbot will then ask if this information is accurate or helpful as a response feature.

Administration Interface

1. After assuming user has logged in, met with a page that has two boxes

2. We'll type in a question

3. And the answer corresponding to that question

4. Hitting enter will add it to the database

Evaluation:

- Convincingly demoed each of the listed challenges?

- Other evaluative comments:

Other challenges recognized by not addressed by demo:

If there were challenges you listed earlier that were *not* covered by a demo, list here. This will hopefully be a short list…but better to be clear about where you are. If you have items here, you could list (if applicable) any pending plans to reduce these risks.

- UI element of user feedback
- Deleting/editing Q/A pairs within the database
- Security in the sense that hackers can't "hack" into the database