CS 4337: Human Computer Interaction

**Help-MeIT**

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Contribution Breakdown

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| --- | --- |
| **Member** | **Contributions** |
| Regina Andes | Co-Developer, Debugger, Documentation |
| Paul Davis (Team Leader) | Co-Developer, Design, Debugger, Documentation |
| Jacquelyn Johnson | Co-Developer, Debugger |
| Andrew Samuel | Documentation, Design, Debugger |

Project Description

**Motivation**

The motivation for this project came from the British sitcom *The IT Crowd*. We, as a group wanted to create an app that represented the sarcastic comments given on the show through an actual IT help app. The comments and prompts given as “IT help” are curated by our group of 4. Potential users can be anyone that is looking for a fun app to go through and discover the unique sarcastic prompts and responses the team has curated. The benefit we hope to bring is fun app full of sarcastic and jovial comments to give the user a good laugh.

**Project-Plan Scenario (Lifecycle model: Waterfall)**

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| --- | --- |
| Timeline | Tasks |
| Week 1 (7/6-7/12) | Requirements / Design   1. Requirements Analysis 2. Use-case analysis 3. Select a user-interface theme |
| Week 2 (7/13-7/19) | Design / Implementation   1. Finalize support categories, specific support issues, and the technical support responses. 2. Select or create images for buttons. 3. Develop each screen layout |
| Week 3 (7/20-7/26) | Implementation / Integration   1. Fill in each screen layout with information from the design phase. 2. Create transitions between screens. |
| Week 4 (7/27-8/2) | Integration/Testing   1. Determine test cases 2. Perform test cases 3. Debug |
| Week 5 (8/3-8/9) | Evaluation   1. Conduct peer reviews. 2. Create product summary poster |

**Use-Case**

Detailed Use Cases:

* Login: User
  + User selects a category
  + User chooses a response to a prompt
  + User exits application

A close up of a logo

Description automatically generated

**Test-Cases (Full test case list found on SPMP)**

* *PC/Laptop Help*
* Test Case Summary: Check Question #1 response for “Apple”
* Test Procedure: Select “PC/Laptop” > Select “Apple”
* Expected Result
* Response: “You have horrible taste. Dismissed.”
* Actual Result
* Status: (Success/Fail)
* Test Case Summary: Check Question #1 response for “HP”
* Test Procedure: Select “PC/Laptop” > Select “HP”
* Expected Result
* Response: “Is it on?”
* Actual Result
* Status: (Success/Fail)
* Test Case Summary: Check Question #1 response for “Google”
* Test Procedure: Select “PC/Laptop” > Select “Google”
* Expected Result
* Response: “Is it on?”
* Actual Result
* Status: (Success/Fail)
* *Phone Help*
* Test Case Summary: Check Question #1 response for "Google"
* Test Procedure: Select "Phone" > Select "Google"
* Expected Result
* Response 1: "Is it on?"
* Actual Result
* Status: (Success/Fail)
* Test Case Summary: Check Question #1 response for "Samsung"
* Test Procedure: Select "Phone" > Select "Samsung"
* Expected Result
* Response 1: "Is it on?"
* Actual Result
* Status: (Success/Fail)
* Test Case Summary: Check Question #1 response for "Other"
* Test Procedure: Select "Phone" > Select "Other"
* Expected Result
* Response 1: "What are you even doing with that trash?"
* Response 2: "Is it on?"
* Actual Result
* Status: (Success/Fail)
* *Console Help*
* Test Case Summary: Check Question #1 response for "Xbox"
* Test Procedure: Select "Console" > Select "Xbox"
* Expected Result
* Response 1: " PC is better. Consider upgrading yourself."
* Response 2: “Is it on?”
* Actual Result
* Status: (Success/Fail)
* Test Case Summary: Check Question #1 response for "Playstation"
* Test Procedure: Select "Console" > Select "Playstation"
* Expected Result
* Response 1: “Your gaming choices are questionable.”
* Response 2: "Is it on?"
* Actual Result
* Status: (Success/Fail)
* Test Case Summary: Check Question #1 response for "Nintendo Switch"
* Test Procedure: Select "Console" > Select "Nintendo Switch"
* Expected Result
* Response 1: " Oh that’s cute, really?"
* Response 2: “Is it on?”
* Actual Result
* Status: (Success/Fail)

**Prototypes**

Design 1:A screenshot of a cell phone

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Design 2 (Inspired by Xfinity’s help chat): A screenshot of a cell phone

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**User Interface (Type: Conversing)**

**A screen shot of a smart phone

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Evaluation Plan

After conducting formative evaluation procedures throughout the development of the app, we began the next phase of our evaluation process once most of the app and its functions were finished. We began with our programmers doing small usability tests as summative and diagnostic evaluations on their assigned sections. We did this by running an emulator of the Pixel on Android Studio as an AVD (Android Virtual Device). In addition to that we ran a field study involving those that are not in our group to run on their own personal android phones to make sure no issues were found when translating the app from an AVD to an actual android device. This also proved to be useful when trying to find any problems or bugs that we might have overlooked or overstated in our findings. Our last step in the evaluation phase was the measurement evaluation. As part of the measurement evaluation we ran the app in Android Studio using the Pixel AVD emulator and ran an app profile noting down the install time, app restart time, the time it took to transition between questions, and the total memory used. The app took 1 second and 173 milliseconds to successfully install and run for the very first time and 106 milliseconds to successfully restart without requiring a reinstallation. For the transition of activities to new questions the app averaged approximately 2 milliseconds per transition to get to the next question of the category. Lastly, the total memory used accumulated to 96 MB. We intend on continuing evaluation protocol as this app is pushed onto a consumer field study and into the market space to maintain the function of the app.

Conclusion

This app came into fruition during a group Zoom session where we were throwing out ideas of apps that would serve a unique and entertaining purpose. With inspiration from British sitcom *The IT Crowd* we decided to create a sarcastic IT help app that would be used as an app to bring the user humor in form of small sarcastic quips curated to different devices in response to different questions per device category. After deciding upon the type of app that we were creating we dived into the designing phase. Within this phase we drew inspiration from Xfinity’s chat-based IT help. However, we decided upon a different user interface model which used a question/answer format since it worked better with our mission statement of providing unique quips per categorical question. Once the conceptual design and the user interface was decided upon, our next steps were to designate a team leader and divide up tasks. We broke our team down to 3 lead programmers that took responsibility for each device category and the fourth member that took primary responsibility of the documentation and keeping track of the projects, timeline, prototypes, and test cases as the project went on. Once tasks were assigned we put our entire project on GitHub to allow for version control and allow a communal place to place all of our project materials. This allowed us to more organized and keep track of the project as it went on in one designated place. As the programmers began coding the app we ran into a problem regarding the question and answers that we were inserting. We found that they followed a very strict template and wasn’t as unique as we would like them to be. This problem was resolved as we broke down the template that we had and began to go question by question to make the device categories and the overall app unique. Lastly, we were to prepare a project presentation to present the project motivation, the functions within the app, and our evaluation plan for our project. However, with our lead programmers being occupied on our presentation date we worked around that issue by recording the overall presentation at an earlier date and playing the presentation back on the date of the actual presentation. We intend on continuing this project in the future by maintaining it and eventually adding it into the Android marketplace as an app that consumers can enjoy around the world.

References

**Websites used:**

* Android Studio documentation--- <https://developer.android.com/>
* draw.io---<https://www.draw.io/>
* GitHub---<https://github.com/>