Peer to Peer Messaging App Evaluation

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# Testing

## Testing Table

Testing tables are used to show the results of any tests as well as fixes that may have been put in place due to the outcome of the tests.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Test | Description | Expected result | Actual result | Success | Fix (If applicable) | Tester | Date |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

### Summary

## Usability testing

Usability testing ensures that the user interface is intuitive to use, this is done by ensuring that the testers have no prior knowledge of the software so as to have only the information and knowledge that an actual user would allowing for the tests to accurately represent the real world, this also means that the testers should not be prompted to do anything be observes.

|  |  |  |
| --- | --- | --- |
| Tester | Observer | Notes |
| 1 | Connor Cuffe | - Didn’t understand why they couldn’t see the message they had sent. Once they quit out they could see it.  - Confused how to connect to name server – didn’t realise that “Name server IP” needed to be populated before Restarting network.  - Didn’t know if “Restart network” button needed to be pressed for creating a chat.  - Didn’t realise that once Contact was added, a chat with that contact could be created by clicking on the contact name not by clicking on “Add chat”, which would create a new chat with a new contact. |

### Summary

# Evaluation criteria

Evaluation criteria define the what features and functionality the software solution must have to be successful. Evaluation criteria are determined prior to the development base on the functional and non-functional requirements.

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Description | Achieved | Explanation |
| Loading times less than 1 second when switching between screens (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | Individual screens should not take more than 1 second to load. |  |  |
| Timely delivery of messages received less than 1 hour after sent if both participants are online (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | Messages should be delivered within an hour of being sent assuming both clients are online. |  |  |
| Zero cost for the life time of the product on both the user and developer ends (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | Zero financial cost for example no |  |  |
| Takes less than half an hour to learn the user interface. (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | The user interface must be intuitive for new users. |  |  |
| No evident major security flaws (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | A major security flaw is a flaw that is likely to expose a users sensitive information, such as their private message. Or allows users to be impersonated. |  |  |
| Less than five minor security flaws (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | A minor security flaw is a flaw that can expose less sensitive user data or delete user data. |  |  |
| Less than two software failures per 24 hours of use. (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | A software failure is an unexpected event that causes damage to the user data or a crash of the program. |  |  |
| Can handle up to 100 users on one network with only minor performance losses (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024). | The network should be able to handle a large number of users at once. | Untestable |  |
| Can send and receive at least 50 messages per hour (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | The network should be able to handle a large amount of traffic at once. |  |  |
| Validates the reason for contact on all teacher student communication (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | The Victorian government requires teacher student communication to be solely for educational purposes as outlined by the Victorian government on their emailing and direct messaging page (Emailing and instant messaging) |  | Due to time constraints it was not feasible to implement this feature. |
| Moderators can view all messages on the network (Cuffe, Peer to Peer Messaging App Evaluation Criteria and UI Mockup, 2024) | The Victorian government requires teacher student communication to be solely for educational purposes as outlined by the Victorian government on their emailing and direct messaging page (email and instant messaging) |  | Due to time constraints it was not feasible to implement this feature. |

## Summary

# Functional requirements

Functional requirements are the basis for the evaluation criteria they outline what features the software solution must have. Functional requirements are determined based on the data collected during the analysis phase.

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Description | Achieved | Explanation |
| Send messages (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | A messaging app must by definition have the ability to send messages. (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Receive messages (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | A messaging app must by definition have the ability to receive messages (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Secure accounts (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | It was identified during the analysis that the user base values the security of their messaging platform over anything else. (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| End to End encryption (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | It was identified during the analysis that the user base places a large amount of value on the security of their messaging platform. (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |

## Summary

# Non-Functional requirements

Non-Functional requirements are the basis for the evaluation criteria they outline what features the software solution should have to increase user satisfaction. Functional requirements are determined based on the data collected during the analysis phase.

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Description | Achieved | Explanation |
| Intuitive graphic user interface (GUI) (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | During analysis it was identified that the user base values easy to use and intuitive user interface. (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Low cost (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | During analysis it was identified that the final software solution being low cost was of extreme importance to the user base. (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Message context validation (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | A system that ensures all student teacher messaging is solely for educational purposes. This would likely take the shape of a “network overseer” who could monitor student-teacher communication. (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Find correct teacher to communicate with (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | A search system that will allow students to easily find the correct teacher based on their communication needs (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Add extra info to profile (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | The ability to have your profile display info other just name such as external contact info and user id (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Network moderation (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | Accounts can be linked to a network moderator who can manage the accounts  Message logging (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |
| Account types (Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) | The ability for network moderators to create different types of accounts for example students and teacher account types(Cuffe, Peer to Peer Messaging App Software Requirements Specification Document (SRS)., 2024) |  |  |

## Summary

# Business requirements

|  |  |  |  |
| --- | --- | --- | --- |
| Criteria | Description | Achieved | Explanation |
| Timeliness | Completed on time without any delays. |  |  |
| Cost | Completed at or below budget. |  |  |

## Summary

# Bibliography

Cuffe, C. (2024). *Peer to Peer Messaging App Evaluation Criteria and UI Mockup.* Melbourne: None.

Cuffe, C. (2024). *Peer to Peer Messaging App Software Requirements Specification Document (SRS).* Melbourne: None.