

Secure Software Development Team Project

Meeting Notes

SecureSpace

Date: 02/06/2023

Time: 10:00 AM BST

Location: Online, Zoom

Attendees:

- Bradley Graham
- Rachel Doherty
- Tomas Mestanza
- Michael Sammueller

Research, Data & Brainstorming

The team held a pre-finalisation meeting to discuss aspects of the diagrams and the design document. The team also clarified and discussed software features.

- Database encryption:
 - The 'pysqlcipher3' library is too complicated to install, possibly affecting the overall deployability of the software; hence it will not be used.
 - The 'cryptography' library would allow us to encrypt the data instead of the database, which theoretically improves the performance of the system while still providing an additional layer of security. The 'cryptography' library is frequently updated (Last update: 01/06/2023), which makes it a great candidate.
- Sensors:
 - Temperature sensor, which continuously monitors the temperature inside the ISS. If the temperature exceeds a predefined maximum, the system will alert the user.
 - These warnings could be stored in a queue, which will be continuously monitored for new warnings.
 - The team discussed using a concurrent threading approach to implement the sensors.
- Roles:
 - A Role object will store information about the role & would allow for methods from the "CommonActions" Class to be matched to each specific role.
 - Each role will have to have a separate account. A "Superadmin" would require an "Astronaut" account to enter health records.
 - To provide an additional layer of security to the "Superadmin" role, the team discussed implementing a "PIN" code. A "Superadmin" would have to log in with their username, password, and the "PIN" code to gain access to their account.

- Design Document:
 - GDPR - The team discussed reducing the amount of text in this section and including assumptions (such as that the astronauts will be briefed about data storage and that they will have to agree to a privacy policy prior to deploying to the ISS).
- UML Diagrams:
 - UML diagrams - The team discussed trimming the use case diagram and potentially removing any mention of security capability from the diagram. Alternatively, mentions of the security capability will be reduced to what would be beneficial knowledge for stakeholders.
 - “Application” should be removed as an actor from the “Use Case” diagram and instead be assigned as the title of the box encompassing the diagram.
 - The team discussed adding “Database” as an actor to the diagram
 - The team discussed using UML Misuse Case Diagrams to display both the use cases and to model security features
 - The team discussed updating the UML Activity Diagram.
 - The team discussed connecting “CommonActions” to “CommandLine” in the Class diagram.
 - “Logger”, “Auditor”, “Sensor”, “Role”, and “Permission” classes will be added to the Class diagram.
 - The “Authentication” Class is to be renamed to “Login”.
 - “Role” to be removed from the “User” Class.

Actions

The team agreed to the following action(s). These actions shall be completed in preparation for the next meeting.

- Reduce the word count of the design document and apply changes discussed in the meeting - Rachel
- Update UML Activity Diagram - Brad
- Update UML Use Case Diagram - Tomas
- Update UML Class Diagram - Michael

Next Meeting: The next meeting is scheduled for the 4th of June at 02:00 PM BST.