SIT725 – APPLIED SOFTWARE ENGINEERING

TASK 4.1P - Software Engineering Ethics

- **Ethical Principles**

1. User Privacy and Consent
    - Players should be required to give explicit consent before the data is accessed
    - Deliver easily understandable information concerning the data collection and usage
    - Users can opt-out or turn off location tracking whenever they want
2. Data Protection and Security
    - Adopt strong encryption for user location and amusement details
    - Gather the minimal amount of data that is strictly necessary for the core functionalities of the application
    - Actively guard user data from unauthorized access or leaks
3. Transparency and Accountability
    - Show how the location-based function operates and its restrictions in an unmistakable way
    - Enable users to regulate the amount of information they share explicitly
    - Display a readable privacy policy and terms of service
4. Non-Discrimination
    - Check if the application treats all users, no matter the class
    - Avoid biases in recommendations and accessibility elements of locations
    - Use reliable user interfaces and experiences
5. Ethical Use of Technology
    - Curb the likelihood of any potential abuses of location tracking
    - Establish measures to prevent stalking or harassment
    - Observe individual privacy and personal boundaries

Software Quality Characteristics

1. Reliability
    - Accurate and consistent socket location information
    - Introduce error handling and graceful failure strategies
    - Ensure interoperable performance across different devices and networks
2. Usability
    - Design an interface that is easy to understand and intuitive
    - Create routes and socket location instructions that are very clear
    - Give useful feedback and instructions to the users
3. Efficiency
    - Have a careful look at locating algorithms for improvements
    - Lowest battery and resource consumption are ensured for this purpose
    - Instant and immediate socket location results
4. Maintainability
    - Use only neat, modular codes and label them with further comments
    - Design for adaptability and include the groundwork for future feature expansion
    - Adhere to the coding practices along with software architecture techniques prescribed
5. Security
    - Implement reliable authentication schemes
    - Defend against the possible security holes
    - Frequently upgrade and patch the software
6. Compatibility
    - Make sure that the app can work across all platforms
    - Allow devices running on different operating systems to work together
    - Create customizable apps to cater to the customer's needs on various platforms
7. Scalability
    - Develop the application to allow for the addition of more users
    - Show an architecture that can grow with your future additions
    - Minimize database and server-sided operations