

TASK 4.1P

1. Ethics Principles for "Locate a Socket" Use Case:

- **Public:**
 - Verify that the app promotes sustainability by reducing its negative effects on the environment, advancing public welfare, and facilitating EV charging.
 - Provide precise, understandable details regarding the price, accessibility, and security measures of charging stations.
- **Client and Employer:**
 - Maintain the confidentiality of any proprietary information obtained from charging station operators and related parties.
 - Ensure that the application's objectives align with the general welfare while delivering results that satisfy users.
- **Product:**
 - Verify that the software is user-friendly, reliable, and free of significant errors that could confuse or irritate EV drivers.
 - Provide dependable features that meet strict requirements, like secure payment processing and user-friendly navigation.
- **Judgment:**
 - All decisions should be supported by well-documented facts to maintain equity and avoid biases in station recommendations or reward systems.
 - Regularly review features' technological and ethical implications, including data sharing with third parties.
- **Management:**
 - Provide the development team with clear directions, ensuring that their work conforms with ethical standards and project objectives.
 - Foster a collaborative environment that respects stakeholder opinions and promotes ethical conduct.
- **Profession:**
 - To maintain professional standards and follow best practices when creating and testing software.
 - Check for compliance with industry regulations such as PCI DSS for payment security and GDPR for data privacy.
- **Colleagues:**
 - Encourage team members to collaborate, respect, and support one another to create a high-quality result.
 - Share knowledge to improve the team's moral and technical competence.

- **Oneself:**
 - To be informed about relevant technology and make ethical choices, pursue continual professional development.
 - Be truthful and accountable in all aspects of the project.

2. Software Quality Characteristics for "Locate a Socket" Use Case:

- **Maintainability:**
 - Future changes, like the addition of new languages or charging networks, should be considered when developing the software.
 - Use modular code and relevant documentation to facilitate debugging and enhancements.
- **Correctness:**
 - Verify that the app meets its requirements, which include accurately locating nearby charging stations and displaying availability in real-time.
- **Reusability:**
 - Make reusable modules to integrate with other services or apps, such as the payment gateway and mapping services.
- **Reliability:**
 - Make sure that the app functions flawlessly with little downtime and provides accurate real-time information on charging stations.
 - Errors such as unsuccessful payment transactions or missing GPS signals should be addressed courteously.
- **Portability:**
 - Make an application that functions well on a range of gadgets, including smartphones, tablets, and PCs.
 - Check for compatibility with different operating systems and device configurations.
- **Efficiency:**
 - To guarantee fast reaction times, make the most use of your resources, especially while loading maps and performing location searches.
 - Lower the battery consumption of mobile devices without interfering with the needs of EV drivers.