Ethics Principles

1. **User Privacy**
    - Collect only essential data (e.g., location during active sessions) and anonymize usage analytics.
    - Comply with **GDPR** (EU) and **CCPA** (California) for data protection.
2. **Transparency**
    - Clearly disclose pricing algorithms and surge pricing triggers to users.
    - Provide audit logs for station owners to verify payment splits.
3. **Accessibility**
    - Follow **WCAG 2.1 AA** standards (e.g., screen reader support, color contrast) for inclusive design.
4. **Fairness**
    - Prevent algorithmic bias in station recommendations (e.g., equal visibility for independent vs. corporate stations).
5. **Sustainability**
    - Promote energy-efficient routing (e.g., prioritize stations using renewable energy).
6. **Accountability**
    - Implement a dispute resolution system for payment or reservation errors.

Software Quality Characteristics *(ISO 25010 Standard)*

1. **Functional Suitability**
    - Accurate real-time station availability updates (e.g., via **OCPP protocol** integration).
2. **Performance Efficiency**
    - Load search results in **<2 seconds** under peak traffic (10,000 concurrent users).
3. **Compatibility**
    - Support cross-platform access (web, iOS, Android) with responsive design.

4. **Usability**
    - Achieve **<3-click navigation** to core features (search, pay, reserve).
5. **Reliability**
    - Maintain **99.9% uptime** for payment processing and reservation systems.
6. **Security**
    - Encrypt all user data (**AES-256**) and payments (**PCI-DSS compliant**).
7. **Maintainability**
    - Modular architecture (e.g., microservices for payments vs. mapping).
8. **Portability**
    - Docker containerization for easy cloud deployment (AWS/Azure).