M1 - Project 2

Structure: Issues with Domain, Stakeholders, Functional and Non-Functional Objectives

1.1 Lack of Clarity in Stakeholders

- **Issue Description:** Unclear identification of stakeholders and their roles in the cooperative car maneuver project.
- **Options:**
  - Conduct stakeholder interviews to gather insights into their expectations, concerns, and responsibilities.
  - Organize stakeholder workshops to facilitate communication and collaboration.
- **Decision and Rationale:**
  - Choose stakeholder interviews as they allow for one-on-one discussions, which might encourage stakeholders to express individual concerns more openly.

1.2 Ambiguity in Non-Functional Objectives —- *change to availability.*

- **Issue Description:** Non-functional objectives (e.g., performance, security) are vaguely defined.
- **Options:**
  - Research industry standards and benchmarks to establish clear non-functional criteria.
  - Conduct workshops with technical experts to outline specific non-functional requirements.
- **Decision and Rationale:**
  - A combination of research and workshops is chosen to ensure a comprehensive understanding of industry standards and to capture expert insights.

Discussion: Additional Requirements

1. **User Interface Requirements:**
    - Specify the design and features of the user interface for both automated systems and human drivers to ensure effective communication.
2. **Data Security and Privacy:**
    - Define protocols for secure communication between vehicles and the central server to protect sensitive data. Ensure compliance with privacy regulations.
3. **Scalability Requirements:**
    - Specify how the system will handle an increasing number of vehicles and infrastructure components to ensure scalability.
4. **Training and Familiarization:**
    - Consider including requirements for user training and familiarization with the cooperative car maneuver system, especially for human drivers interacting with automated features.
5. **System Monitoring and Auditing:**
    - Define requirements for real-time monitoring of system performance and auditing capabilities to review and analyze critical events or incidents.

Elicitation Methods:

- **Interviews:**
    - Effective for understanding individual stakeholder perspectives, concerns, and expectations.
- **Workshops:**
    - Facilitate group discussions to uncover shared goals, conflicts, and synergies among stakeholders.
- **Research:**
    - Explore industry standards, best practices, and benchmarks to ensure that the project aligns with established norms.

Design Rationale:

- **Stakeholder Interviews:**
  - Chosen for their ability to provide deep insights into individual stakeholder perspectives, which may not be fully captured in group settings.
- **Combination of Research and Workshops for Non-Functional Objectives:**
  - Research ensures alignment with industry benchmarks, while workshops involve key technical experts to address specific project needs.

Conclusion:

By addressing the identified issues and incorporating additional requirements through a combination of interviews, workshops, and research, the project basics can be refined to provide a more comprehensive and clear foundation for the development of a cooperative car maneuver system.

WorkShop