Case Description

The AUTOservice company has no software intensive system to manage and organize the AUTOservice work and to store information about the cars to repair. The major goals to achieve are:

- New car to repair registered;
- Car repairing status is up to date;
- Maintaining tracking of repairing schedules;
- Information about car conditions (e.g., particular defects) is recorded.

The major stakeholders are

- **owner** who would like to know all the information about the cars to repair but she has no other tasks to fulfil in or intention to use the information system
- **technician** who can read data related to the car such as general data, repairing status, particular defects. She will be also able to work with schedules (e.g., for repairing) and add other notes
- **manager** who can enter and update information about new car to repair in the AUTOservice, create repairing schedules, print generated reports
**Task1**: What are the social relationships between the stakeholders of the AUTOService system?

To support your answer, create a **strategic dependency model** (using the **i* modelling language**), where **social viewpoint** of the given case is illustrated.
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Task 2: Use KAOS modelling languages and refine goal “*Information about car conditions (e.g., particular defects) is recorded*” to the goal hierarchy

- Containing at least 4 hierarchy levels
- Including at least 2 alternative refinements
- Your model should separate between requirements and expectations
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**Task 3**: Create a **use case diagram** to illustrate functions of the AUTOservice system

- In the ideal case, the use case diagram could potentially show how some requirements from task 2 are operationalised.
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Task 4: Select **one use case** from diagram created in Task 3 and illustrate its scenarios by filling in this **use case template**
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<table>
<thead>
<tr>
<th><strong>Use case ID:</strong> na</th>
<th><strong>UC#1: Record information about car condition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Date created:</strong></td>
<td>16.11.2020</td>
</tr>
<tr>
<td><strong>Actors:</strong></td>
<td>AUTOservice system, Technician,</td>
</tr>
<tr>
<td><strong>Description:</strong></td>
<td>In this use case the information about the car defects is collected. It is done by analyzing the visual look of the car, by running the diagnostic and by generating the defect report.</td>
</tr>
<tr>
<td><strong>Trigger:</strong></td>
<td>Car is moved to examination frame.</td>
</tr>
<tr>
<td><strong>Precondition:</strong></td>
<td>The car is in service, car is not functioning as required.</td>
</tr>
<tr>
<td><strong>Postcondition:</strong></td>
<td>Defects are collected</td>
</tr>
</tbody>
</table>
| **Main flow:**    | 1. Technician plugs and starts diagnostic system  
|                   | 2. Diagnostic system runs diagnostic (includes UC#1.1)  
|                   | 3. Diagnostic system sends results to Report controller  
|                   | 4. Technician performs visual check (includes UC#1.2)  
|                   | 5. Technician enters results of the visual check to Reporting controller  
|                   | 6. Reporting controller prepare car condition report (includes UC#1.3)  
|                   | 7. Technician prints out the car condition report |
| **Alternative flow:** | None                        |
| **Priority:**     | Not-known                                  |
| **Assumptions:**  | Owner allowed to perform car reparation and collect information about the car. |
Task 5: Consider the Main flow of the use case defined in Task 4 table, and define data (or static or conceptual) model using UML class diagrams
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