For the given scenario prepare a requirements specification. Your specification should include:

1. Explicit and clearly defined scope.
   You have the freedom to decide whether you specify requirements for the system or for the system components or for the software or for the separate software component. In other words it must be clear and explicit what is the product and its application domain.
   (5 points)

2. While preparing the specification, start and maintain the glossary, where all the important terms are continuously included and shortly (one sentence is enough) defined.
   (10 points)

3. Define what are the major actors, their goals and their dependencies? How they help each other to achieve their goals? To answer these questions, prepare the strategic dependency model.
   (10 points)

4. What are the major functions (at least 5) of your product? To answer this question, define the use case diagram.
   (10 points)

5. Select one use case. Elaborate the identified use case and define the goal model using KAOS modelling language. Your goal model should have a hierarchy of at least 3 levels, it should have at least one alternative goal refinement, and it should illustrate the agent assignment.
   (10 points)

6. From the given class diagram (see scenario description) select one class and prepare one object state diagram.
   (10 points)

7. Taken into account the class diagram (given in the scenario description), prepare one diagram (e.g., sequence, activity, etc.), which specifies behaviour.
   (10 points)
8. Define at least 2 assumptions/expectations regarding the use of the identified product. To answer this question, use the requirements/expectation shell (or similar template). 

(5 points)

9. Define at least 6 specific (e.g., functional, data, similar) requirements for the identified product. To answer this question, use the requirements shell (or similar template).

(10 points)

10. Define at least 4 non-functional requirements for the identified product.

(5 points)

11. Organise a set of requirements to hierarchy (if needed introduce additional requirements). Which requirements are the most important (and need to be selected for the implementation in the first release of your product)? To answer this question, apply the AHP method.

(10 points)

12. Once your specification is completed, check its quality. Based on the quality evaluation results, explain (write text), what should be done to improve quality of your requirements specification.

(15 points)

Important concerns:

• Although each diagram is worth 1000 words, it is useless without proper explanation (explain each prepared diagram, its major idea textually).
• Your requirements specification should be understandable, organised, syntactically valid and complete, semantically complete and correct, consistent, annotated, traced and traceable, unambiguous, etc.
• Each defined requirement must respect the criteria for “good requirements”.