

## Answers to Pearl Test 111 Requirements Engineering, 26.10.2017

1. (a) Starting phase / Preparation phase / Execution phase / Closing phase  
(b) Preliminary work; some preparation needs to be done before you can actually start a project
2. (a) and (b) are system-level requirements; they state a function that the system needs to provide.  
(c) is a business-level requirement; it is not a system function (the system doesn't know when the car is needed and how long it would take to recharge), but a real-world activity for which the system functions provide help.
3. (a) A quality requirement specifies a quality property of the system as a whole.  
(b) Examples: The system should be operational by 01.01.2018 / The development costs should not exceed €1M / The system should run on Windows 10.
4. *Motivation*: Increasing sales and repairs cause a bottleneck in the repair service. This needs to be addressed in order to maintain AAA's reputation.  
*Goal of the system*: The system has two goals: to automate some clerical tasks and to improve coordination within the Service Department.  
*Exclusions*: The system does not provide help with the repairs.
5. Stakeholders mentioned in the text and the roles to which they would naturally fit:
  - Aaron: Purchaser (*probably also Champion, not Functional Beneficiary*)
  - Customer: Normal Operator, Functional Beneficiary (*gets better service*)
  - Customer Service Staff: Normal Operator, Functional Beneficiary (*work gets easier*)
  - Technical Service Staff: Normal Operator, Functional Beneficiary (*work gets easier*)Essential roles for which no stakeholder is mentioned:
  - Developer (without a developer there will be no system)
  - Operational Support (essential that someone can help when there are problems)
  - Maintenance Operator (essential that maintenance is taken care of)
6. (*Acceptance criteria were asked for one of the user stories; there are different options*)
  - As Customer Service staff I want to create a service record  
*possible acceptance criteria*:
    - Test with existing order number and summary (*pass*)
    - Test with existing order number, and empty summary (*fail*)
    - Test with not existing order number and summary (*fail*)
  - As service staff I want to consult a service record
  - As Technical Service staff I want to register arrival of a product
  - As Technical Service staff I want to add a cost estimate to a service record
  - As a customer I want to give (no) permission for repair  
*possible acceptance criteria*:
    - Test with correct bank account number (*pass*)
    - Test with correct credit card number (*pass*)
    - Test with incorrect bank account / credit card number (*fail*)
    - Test with expired bank account / credit card number (*fail*)
  - As Technical Service staff I want to update a service record
  - As Customer Service staff I want to finalize a service record