

Answers Pearl Test 111 (RE), 27-10-2016

1. (a) The “iron triangle” states that of the three aspects time, scope, and resources only two can be managed successfully.
(b) For the module project, time and resources are fixed. Therefore the scope should be kept variable (i.e., prioritize and implement the user stories in such a way that you deliver a complete product, even if have to drop some of them when time runs out.)
2. It is a typical goal-level requirement: The supplier of the software can never guarantee that sales will increase, even if they deliver perfect software. In other words: from the perspective of a software project, it can only be an external goal, not a project goal.
3. The guidelines give the following list: Brainstorming, Interviewing, (Group interviews), Documents, Observation, Studying similar products, Prototyping.
4. *Motivation:* Energy demand management is highly welcome because an increasing part of energy production (renewable energy) has varying levels of production.
Goal of the system: To be able to conduct the pilot with energy demand management
Alternatively:
Motivation: The pilot with energy demand management needs a different administration
Goal of the system: to provide the needed administrative functionality, i.e., registering usage per customer per time slot; showing prices for the next 24 hours.
5. (a) In the text the following stakeholders are mentioned (the roles in parentheses are logical roles but not explicitly mentioned):
Customers (citizens of Neustadt):
Normal operator, Functional beneficiary, the Public
Ruhstrom:
(Normal operator, Purchaser,) Functional beneficiary, Interfacing system owner¹
BuildIT:
Developer, Maintenance operator, Operational support
State government of NRW + Federal ministry of Economy and Energy:
Sponsor (Politician, Regulator, Functional beneficiary²)
City authorities of Neustadt:
Regulator³ (Politician)

(b) Possible answers:
 - Other energy companies, because Ruhstrom gets a competitive advantage
 - Energy companies with vested interests in other energy sources (oil & gas)
 - Trade unions / companies / politicians who don't want the last mines⁴ to close
 - Citizens / political parties opposed to an increasing number of wind mills
etc.

¹ Smart meters (owned by Ruhstrom) can be considered interfacing systems

² The government is indirect beneficiary in the sense that renewable energy gets more manageable

³ The city authorities insisted that Ruhstrom makes the data available

⁴ Germany still has some operating brown coal mines

6. As a customer I want to see the electricity prices for the next 24 hours
As a customer I want to log in to my Ruhrstrom account
 - test with correct user ID and password (pass)
 - test with incorrect user ID or password (fail)
 - test with correct customer number, postal code and house number (pass)
 - test with incorrect customer number, postal code or house number (fail)As a customer I want to change my account details
As a customer I want to see/download an overview of electricity usage in the past
24 hours/week/month/3months/year