

Parels der Informatica (201300070)
Paretoets 111 Requirements Engineering,
Donderdag 22 oktober 2015, 8:45–9:45

- *Bij deze toets mag je één vel A4 met aantekeningen gebruiken (geen ander studiemateriaal). Eenvoudige calculators zijn toegestaan bij paretoetsen, maar die heb je hier niet nodig.*
- *De opgaven zijn gesteld in het Engels. Je mag naar keuze in Engels of Nederlands antwoorden.*
- *Cijfer = #punten/10.*

Questions 1–3 relate to the course materials.

- 1 What do the four capital letters in the acronym *MoSCoW* stand for? What is *MoSCoW* used for? (10 pt)

- 2 A requirements specification for a webshop application contains, among others, the following requirements: (10 pt)
 - (a) Generating a new page for a website visitor should take less than 200 msec on average if the server load does not exceed 10,000 requests per hour.
 - (b) Customers can add items which they may want to purchase in future to their personal ‘interest list’.
 - (c) The system should be available on 1 February 2016.

For each of these requirements: it is a constraint, a functional requirement or a quality requirement? Why?

- 3 What are the similarities and differences between iterative/incremental development (as an extension to the waterfall model) and agile development? (10 pt)

Questions 4–6 relate to the case study on page 2.

- 4 For a mission statement, write the paragraphs *Motivation*, *Goal of the system*, and *Exclusions*. (Skip *Type of system* and *Approach*.) (20 pt)

- 5 The “onion-model” has stakeholder roles in multiple layers around the software system, including (but not limited to):
The System: Normal Operator, Maintenance Operator, Operational Support;
The Containing System: Purchaser, Functional Beneficiary, Interfacing System Owner;
The Wider Environment: Developer, Sponsor, Champion, Politician, Functional Beneficiary, Negative Stakeholder, Regulator, The Public. (20 pt)
 - (a) Which stakeholders are mentioned in the text? To which roles do they fit?
 - (b) What are the most essential stakeholder roles for which no stakeholder is mentioned in the text? Who could fulfill these stakeholder roles?

- 6 Give all user stories for a prepaid member. Give appropriate acceptance criteria for one of these user stories. (30 pt)

The acceptance criteria should be derived from the text. (So it should not be about payments—the example from the course materials—because nothing is specified about how one can pay.)

Internet Dating Service

The internet company Hello.nl exploits a popular dating website and claims to be better than its competitors in selecting the right matches.

Elaborate profile descriptions in combination with a unique ranking algorithm offer its members the possibility to quickly identify other members with a high chance of being a good match. It is possible to exchange e-mail and to chat with other members through the website, so as to get to know each other or to arrange for a real-world date.

The site is a success and membership has been gradually expanding, which makes it necessary to redesign the underlying software system. The current system, once upon a time developed by the founders (now directors) of the company, has reached its limits and can no longer handle the increase in traffic, which has been about 20 % per year for the last three years. It has to be replaced by a system with a more scalable architecture. The directors of Hello.nl have contracted the company Bugless Software Ltd. to develop a new system. The Top priority now is to get a system that allows the business increase. The new system should have the same functionality as the current system, ideas for additional functionality have to wait until the new system is up and running.

If you want to see what Hello.nl is like, you can visit it and have a look around before you become a member. Visitors can do a 'quick search'. By specifying a few simple parameters in a web form, 10 randomly selected persons that match the search criteria will be shown. You can see photos and some details of the selected persons, but in order to contact someone you need to become a member.

There are two things which a new member should do as soon as possible: enter personal characteristics in the *member profile*, and enter desired characteristics of a prospective partner in the *search profile*. With this profiles in place you can ask the system to do a 'smart search', yielding a list of potential partners, sorted by the matching algorithm. Both profiles can be changed (in which case a 'smart search' will give different results).

Hello.nl has two kinds of membership: *prepaid member* and *full member*. A prepaid member needs to buy credits. Searching is free, but sending a message to another member costs one credit. Receiving messages is free, you can read received messages at any time (unless you deleted them) irrespective of your membership status and credit count.

Another way to contact a member is to use the chat function. Successfully starting a chat also costs one credit. If another member wants to start a chat with you, you can accept (free of charge) or decline.

Alternatively, you can buy full membership for one or more months. During the period of full membership you can communicate as much as you like, free of charge. If you become full member, remaining credits will be refunded.

When the full membership expires you will automatically become prepaid member again. But if that isn't what you wanted, you can regain full membership immediately by buying more months.

Members can deactivate their membership, e.g. when they have found the right partner. By default Hello.nl will make the data inaccessible but keep them for future data analytics. However, if you explicitly ask for it, your data will be deleted.