

## Tutorial Sheet 2: Quality Models

**A computer with internet access is required for this tutorial sheet.**

### Background

There exist various guidelines or company specific specification to support the software development activities, such as web development guidelines or java programming guidelines. Generally, these guidelines attempt to cover product quality criteria. Nevertheless, project context, in particular project scope, customer/user expectations tailor the rules which exist within the guideline to compliance with the specific application context. But quality of each attribute such as easy to use, minimum effort to fix errors, execution and storage efficiency, adequate security are always expected by the stakeholders.

### Task

Download the guidelines given below:

- Web development guideline (Source: <http://martybugs.net/articles/webdev.cgi>).
- Server-Side Application Development Standards v1.08 for the future media standard and guidelines by the BBC. Recommended sections are: *Security*, *Scalability*, and *Maintainability*. (Source: [http://www.bbc.co.uk/guidelines/futuremedia/technical/app\\_dev.shtml#design\\_planning](http://www.bbc.co.uk/guidelines/futuremedia/technical/app_dev.shtml#design_planning))

Identify the factors from the web development guideline and server-side application development standards, which have positive or negative impact on the quality aspect. Use the QM editor available by the course website to complete the factor and impact analysis by following the guideline

(Example: the web development guideline state that, excessive animated graphics, or excessively slow page annoy visitors. Therefore, animated graphic as entity and excessive as property considered, which have negative impact to the usability and efficiency quality aspect)

(Example: security section of the Server-Side Application Development Standards v1.08 for the future media standard emphasize on clear code for the security, therefore code as entity and clear as its property positive impact on the security aspect)

**Deliverable** The editor will generate a report based on your assumption about the influence of the factor to the quality criteria.

- Web development guideline
  - Excessive animate graphics negatively impact on efficiency
  - Navigation on easy location impact on usability
- Server-Side Application Development Standards v1.08 for the future media standard

- clear code positive impact on security and usability
- data validation from untrusted sources positive impact on cross site scripting
- environmental variable modification positive impact on spoofing
- block application abuse positive impact on DoS
- reduce file I/O positive impact on scalability
- file with author name, description, application positive impact on maintainability
- clear and precise error message positive impact on maintainability