

Requirements and Specification, ESOF 328, Spring 2022
The essential software requirement, Chapter 1

1. For each of the following, tell the type of requirements information.

Term
Business requirement
Business rule
Constraint
External interface requirement
Feature
Functional requirement
Nonfunctional requirement
Quality attribute
System requirement
User requirement

- a. As a passenger, I want to check in for a flight so I can board my airplane.
user requirement, this chapter
- b. The Passenger shall be able to print boarding passes for all flight segments for which he has checked in
functional requirement, this chapter
- c. If the Passenger's profile does not indicate a seating preference, the reservation system shall assign a seat
functional requirement, this chapter
- d. A tutorial, not integrated into the system, is needed to help new users get up to speed
nonfunctional requirement
As above, this was given as a project requirement which Wiegers would not include in the SRS, but we will.
- e. Increase non-US sales by 25 percent within 6 months.
business requirement
- f. DVD discs and Blu-ray Discs are video items
business rule
- g. Video items may be checked out for one week at a time.
business rule

- h. No more than five experimental runs out of 1000 can be lost because of software failures.
quality attribute
- i. The user shall be able to re-sequence bookmarks.
functional requirement (could also be a feature)
- j. A patron may not renew an item that another patron has on hold
business rule
- k. Decrease input errors by 25%
business requirement
- l. The system must interface with the commonly used reservation system SABRE
external interface
- m. The system be developed as a web service.
constraint
- n. The system shall run on Android and iOS devices.
constraint
- o. The system must respond to any flight search within 3 seconds.
quality attribute
- p. After the XML Parser has completely parsed a file, it shall produce an error report that contains the line number and text of any XML errors found in the parsed file and a description of each error found.
functional requirement
- q. All website images must include alternative text to be used by electronic reading devices to meet accessibility requirements of visually impaired users
If this is a policy for the company, not just for this product, the is a business rule. If it is only for this product, it is a quality attribute. Quality attributes are non-functional requirements which describe a service or performance characteristic of a product.
- r. The user shall be able to modify a bookmark's name, URL, and description
Functional requirement
Given in the text as a functional requirement, since it gives multiple changes it appears higher level so it might be seen as a user requirement.

- s. If the editor fails before the user saves the file, the editor shall be able to recover all changes made in the file being edited up to one minute prior to the failure the next time the same user starts the program.

Nonfunctional requirement

2. Describe the difference between product and project requirements.

Product is what is being built so product requirements are properties of the software system being built (customer needs or objectives, conditions or capability the product must possess)

Project requirements are those requirements which aren't product requirements but are necessary for the successful completion of the projects. Examples are:

- Resources needed
- Staff training needs
- User documentation
- Infrastructure changes
- Product release info
- Product certification and compliance requirements revised policies
- Customer service-level agreements