

Nonfunctional requirements



**ASSIGN
BUSTER**

Functional requirements define the needs in terms of performance, logical database requirements, design constraints, standards compliance, reliability, availability, security, maintainability, and portability.

EXAMPLE 1

Performance Requirements Performance requirements define acceptable response times for system functionality. The load time for user interface screens shall take no longer than two seconds. The log in information shall be verified within five seconds. Queries shall return results within five seconds. **Example 2 Logical Database Requirements** The logical database requirements include the retention of the following data elements.

This list is not a complete list and is designed as a starting point for development
Booking/Reservation System
 Customer first name
 Customer last name
 Customer address
 Customer phone number
 Number of occupants
 Assigned room
 Default room rate
 Rate description
 Guaranteed room (yes/no)
 Credit card number
 Confirmation number
 Automatic cancellation date
 Expected check-in date.

Expected check-in time
 Actual check-in date
 Actual check-in time
 Expected check-out date
 Expected check-out time
 Actual check-out date
 Actual check-out time
 Customer feedback
 Payment received (yes/no)
 Payment type
 Total Bill
 Food Services
 Meal
 Meal type
 Meal item
 Meal order
 Meal payment (Bill to room/Credit/Check/Cash)

EXAMPLE 3

Design Constraints

<https://assignbuster.com/nonfunctional-requirements/>

The Hotel Management System shall be a stand-alone system running in a Windows environment. The system shall be developed using Java and an Access or Oracle database. Illustrate a timeframe needed to complete each task based on the requirements from question 2. (5 Marks)

Answer Estimating time frames To manage your time well, you should know not only what tasks you need to accomplish, but also when those tasks must be completed and how long they'll take.

Making accurate estimates about how long a task will take is one of the keys to effective time management. Many management problems are the result of unrealistic estimates of how long it will take to complete specific tasks. If you estimate time frames accurately, you'll be able to schedule work efficiently and meet deadlines: schedule work efficiently – Accurate estimates about how long tasks will take to complete make scheduling a lot easier.

They ensure that you won't have to keep changing your schedule. If you have a task that you accurately estimate will take six hours, for example, you can allot that time in your schedule and be reasonably confident you won't have to change the schedule. But what if you didn't accurately estimate the time for that task and allotted it only three hours? It would throw your schedule off, and you'd need to rework it. meet deadlines – If you're accurate in estimating the time it will take to complete tasks, you'll be better able to meet your deadlines.

If your estimates aren't accurate, you may need to ask to change deadlines or disappoint others who are relying on you to complete certain tasks. With accurate time estimates, you'll also be more confident about setting

deadlines because you know that the time you assign for completing each of your tasks is realistic. Time estimate equation It's important to estimate the time frames for your tasks accurately so that you can schedule all your work effectively and meet deadlines.

To go about doing this, you first need to know the requirements of each task and your experience with activities – both when they run smoothly and when they don't – to produce three time estimates: The likely time is the time that the task normally takes you to complete. It helps to consider the time it takes to complete the task without interruption. You should also think about a time frame you would be comfortable with based on your workload, the task, and any external factors that may delay or speed up the completion of the task.

The shortest time is the least amount of time that you have taken to complete the task in the past. It may also refer to the shortest time in which you think you can complete the task if there are no interruptions or distractions. You can estimate the longest time by considering what may go wrong when performing the task and then adding this extra time to the task's likely duration. This estimate should be based on your experience of this type of activity in the past, as well as on any foreseeable difficulties.

You use the three time estimates to calculate the shortest possible time to complete a task based on an average of the likely, shortest, and longest times. Because in most cases a task will take the likely time to complete, this time is given more weight. You need to multiply it by 4, add the shortest time, and then add the longest time. You divide the total by 6 to get the

shortest possible time. One important thing to remember is that you must use the same measurements for each type of time.

For example, if your likely time is a number of days, the shortest and longest times must also be in days. If your estimates are in different measurements, start by changing them so they are all the same. The time frames equation often produces a shortest possible time that is longer than the shortest time you put into the equation. This is because the equation helps ensure that you're realistic about how long things will take.

To manage your time effectively, you have to estimate the time it will take to complete each of your tasks. Doing this ensures you can schedule your work appropriately and meet all your deadlines. To estimate the time frames for your tasks, you can use a simple time frames equation, which uses estimates for the likely, shortest, and longest times to calculate the realistic, shortest possible time that it will take to complete a task.

Five threats to your business that you need to consider for the success of this system. Answer: After assessing the strengths and weaknesses of your business for your business plan, look for external forces, like opportunities and threats, that may have an effect on its destiny. These changes include
The appearance of new or stronger competitors. The emergence of unique technologies
Shifts in the size or demographic composition of your market area
Changes in the economy that affect customer buying habits
Changes in customer preferences that affect buying habits
Changes that alter the way customers access your business.

Changes in politics, policies, and regulations
Fads and fashion crazes
List the threats and opportunities facing your business, and follow these guidelines:
When listing opportunities, consider emerging technologies, availability of new materials, new customer categories, changing customer tastes, market growth, new uses for old products (think about how mobile phones and even eyeglasses now double as cameras and computers), new distribution or location opportunities, positive changes in your competitive environment, and other forces that can affect your success.

When listing threats, consider the impact of shrinking markets, altered consumer tastes and purchase tendencies, raw material shortages, economic downturns, new regulations, changes that affect access to your business, and competitive threats, including new competing businesses and competitive mergers and alliances. Also think about the impact of expiring patents, labor issues, global issues, and new products that may make your offering outdated or unnecessary.

If you're having a tough time getting specific, look back at the strengths and weaknesses, but this time, use it to list strengths and weaknesses of a competitor. You won't know as much about your competitor's capabilities as you know about your own, but you probably know enough to flag areas of strength and weakness. Your competitor's strengths are potential threats to your business, and its weaknesses present potential opportunities.

Three elements of risk
All risk management standards agree that the goal of risk management is to enhance the chances of success of the relevant endeavor. However, each of them provides a different definition of risk:

ISO31000: 2009 calls it "effect of uncertainty on objectives," the PMI "PMBOK Guide" has "an uncertain event or condition that, if it occurs, has a positive or negative effect on the project's objectives," and the preferred RiskDoctor definition is "uncertainty that matters."

"Each description is true, but only partly so. This matters because, until we know what we are dealing with, we cannot manage it in the best way possible: If we use the ISO definition, then our first thought will be to focus on the effect; If we follow PMI, then we will start from the potential occurrence; With the Risk Doctor definition, we start from uncertainty. Each of these — the effect, the event and the uncertainty — is a component of risk, but on its own is not a risk.

Even taken in pairs they do not provide the full picture: an effect plus an event is an issue; an event plus an uncertainty is a prediction; an uncertainty plus an effect is a concern. It is only when you put all three together that you can see what a risk is made of, and use this information to decide on what, if anything, to do about it. Of course, this then requires a longer definition, but the goal of enhancing the chances of success is worth the effort.

But what is "success"? It is more than simply "meeting objectives;" it must also include the condition of "complying with project constraints" in order for the final result to remain within scope. Given this clarification, a more complete definition is: "Risk consists of three parts: an uncertain situation, the likelihood of occurrence of the situation, and the effect (positive or negative) that the occurrence would have on project success."

The three-part definition helps with three important stages of the risk management process: In 1. risk identification, it supports the structured description of a risk ("risk metalanguage") in the form: "Because of , may occur, leading to In 2. risk evaluation, knowledge of potential causes allows you to evaluate the likelihood; identification of effects provides a basis for quantifying the impact.

In 3 risk response planning, the different parts of the definition suggest different response approaches: for threat avoidance, understanding the situation may allow you to stop it happening or protect against its results; understanding the situation can also be used to help us exploit opportunities; in risk transfer or sharing, we seek a partner better equipped to address the effect; for threat reduction or opportunity enhancement, we focus on the effect and/or the likelihood; in risk acceptance, any contingency plan has to address the effect.

Including these three components when you describe risks (the uncertainty, the event and the effect) will help everyone involved in risk management to take account of these three important aspects of risk, and act on them to enhance the chances of success.

EXAMPLE

Two examples of Managing risk in hotels Process and framework

IHG has an established risk management process and framework embedded in owned and managed hotels in all regions. The long-term strategic goals are aligned with the IHG core purpose Great Hotels Guests Love and include

three key elements: safety and security of guests, employees and other third parties; brand strength supported by operational excellence in risk management at all hotels and corporate locations; and maintenance and promotion of the reputation of the Company.

Our approach has been to enable and support hotel owners, staff and corporate functions to manage risk effectively. This is accomplished by giving them a systematic approach and framework to follow and by providing them with tools to do the job. The Global Risk Management function aims to share specialist knowledge and capability globally whilst being aligned to the operational structure of the business to ensure local circumstances are understood and respected and greater engagement of our people is achieved.

Example 2 1 Safety and security risks in hotels A strategic framework for hotel safety and security has been designed for owned and managed hotels and is illustrated below, showing the identified groups of risks and describing the management activities carried out to mitigate those risks. 2 Mitigating hotel safety and security risks Risks are identified at hotel level through various means including intelligence gathering, quality audits, risk management assessments and internal audits.

They are also identified as a result of incidents, customer audits and self-assessment. Hotel management discuss issues at monthly safety meetings and action plans are developed. Risks are prioritised, assigned and improvement actions are identified, progressed and monitored. Action plans

are reviewed at appropriate levels in the organisation for issues that need to be escalated either to drive action or to develop common solutions.

IHG believes it has a mature and capable systemic and systematic approach to managing hotel safety and security which both reduces the likelihood and impact of events. The embedded culture within IHG makes hotels and the corporation more resilient to unexpected or unidentifiable risks.

- <https://www.ihgplc.com/files/reports/ar2009/managing-risks-in-hotels.html>
- <http://exclusive.multibriefs.com/content/3-essential-elements-of-risk/business-management->