# M02

## Questions 1 -7 pg 120

### 1. What is the meaning of analysis? What is the purpose of the analysis phase of the SDLC?

Analysis is to determine the functional requirements for the new system. The purpose of the analysis phase is to isolate and understand the parts comprising a project to understand how each should function both individually and as a whole.

### 2. What are the key elements of the system proposal?

Requirements definition, use cases, process and data models, feasibility analysis and work plan.

### 3. A system development project may be approached in one of two ways: as a single, monolithic project in which all requirements are considered at once or as a series of smaller projects focusing on smaller sets of requirements. Which approach seems to be more successful? Why do you suppose that this is true?

A series of smaller projects would be less prone to scope creep for starters. Seems like it would be next to impossible to correctly lay out all the requirements at once for the entire project.

### 4. Distinguish between business, user, and functional requirements.

Business requirements have to do with the value the project provides to the company. User requirements have to do with what the users need to do and fuctional requirements are all about the base functionality needed to achieve all the other requirements.

### 5. Explain what is meant by a functional requirement. What are the two types of functional requirements? Give two examples of each.

Functional requirements are the product capabilities, or things that a product must do for its users. Two types are process and information-oriented.

Process-oriented:

* Allow users to view order history
* Allow users to view availability schedule when booking a hotel room

Information-oriented:

* System must store order history for a given period of time
* System muts store customer data until customer requests it be removed

### 6. Explain what is meant by a nonfunctional requirement. What are the primary types of nonfunctional requirements? Give two examples of each. What role do nonfunctional requirements play in the project overall

Nonfunctional requirements are the quality attributes, design, and implementation constraints, and external interfaces which a product must have.

Their role has to do with behavioral qualities the system must have, perhaps to improve user experience.

Operational:

* System should be compatible with all current browsers
* System will run on iOS devices

Performance:

* Database queries should return in a certain number of seconds
* System must be available 24 hours a day

Security:

* Employees can only see their own records
* Managers can see all employee records

Cultural & Political:

* Ability to function in multiple languages
* Company only buys parts from certain suppliers

### 7. What is the value of producing a requirements definition and having the project sponsor and key users review and approve it?

It describes the project scope and allows all stakeholders to make sure their interests are covered. Prevents later complaints about missing functionality.

### 8. What are the three basic steps of the analysis process? Is each step performed in every project? Why or why not?

1. Understand the current system 2. Identify ways to improve the current system 3. Develop system concept

No, every step is not performed in every project, especially when there is no current system or the current system bears no resemlence to the new project.

## Exercises F - H

### F. Suppose that your university is having a dramatic increase in enrollment and is having difficulty finding enough seats in courses for students so that they can take courses required for graduation. Perform a technology analysis to identify new ways to help students complete their studies and graduate.

I’m assuming this is just a general answer kind of question. But I’d audit the current courses, available instructors, course waitlists, any trends in majors, to see if shifting some instructors to other courses might help. Assuming there are currently no online courses, I’d create studies of the necessary infrastucture, cost of additional inctructors, and feasibility of online courses to meet the course requirements. That’s where I’d start.

### G. Suppose that you are the analyst charged with developing a new system for the university bookstore with which students can order books online and have them delivered to their dorms and off-campus housing. What requirements-gathering techniques will you use? Describe in detail how you would apply the techniques.

I’d start with sending questionnaires to a large, randomly selected group of students who have been attending for several semesters to increase the likelihood that they have experience buying books. This would include questions about how they perceived the process, any problems they had, and give them a chance to express interest in book delivery.

Based on the responses, I’d see how they compared to my expectations and perhaps rewrite or expand the questions and go with a formal joint application development session with another group of students, both new and existing to explore their likes, dislikes, satisfaction and expectations from a book delivery program. If any of them seemed to be a fountain of information, I might follow up with some one-on-one interviews.

### H. Suppose that you are the analyst charged with developing a new system to help senior managers make better strategic decisions. What requirements-gathering techniques will you use? Describe in detail how you would apply the techniques.

I’d go with one-on-one interviews with the intention of providing privacy to ellicit honest responses. Perhaps include managers from related departments to see if their impressions of any improvement plans sounded plausible.

## Minicases #3

### Evaluate Barry’s conduct of the observation assignment.

Barry’s a programmer. Why did they send him? Seriously. But I’ll play. First of all he should have been in contact with the store manager beforehand to arrange things and get an idea of what to expect, what he’d be observing. He should have had an outline of their schedule, their roles, their processes, and anything else that he could be observing. Barry was there for an observation report, not a “get-in-everyone’s-way-and-disrupt-the-workplace-for-an-hour” report.