

Requirements and Specification, ESOF 328, Spring 2022
Documenting the Requirements, Chapter 10, Jan. 26

Evaluate the following requirements and write new requirements if necessary.

R01. Invalid commodity income, less than on Next button press

While compiling the data, if the expected income of a commodity is less than 0 when the user presses the 'Next' button, the program does not continue to the next screen.

Rationale: Gross revenue cannot be negative for any commodity.

Priority: Imperative

Requirements checklist:

	Satisfied?	Why or why not?
Identified by a number		
Identified by a short phrase		
Prioritized (imperative, important, desired)		
Rationale is given		
Tells what is required		
Tells under what situation		
Clearly written, unambiguous		
Avoids premature design		
Can't be broken into multiple more clear requirements		
Necessary requirement (also check that it wouldn't be better expressed as a non-functional requirement)		
Realistic		
Testable		
Stands on its own – other requirements don't need to be examined to understand what this means		
Uses terms/approach consistent with the rest of the document		

Problems:

- Identifying short phrase is not very short
- Includes premature design

Rewrite:

R01. Validate commodity gross revenue

Gross revenue value for any commodity cannot be negative. If a negative value is entered the system shall provide feedback to the user. There is no restriction on the maximum value.

Rationale: Gross revenue for any commodity cannot be negative.

Priority: Imperative

R02. Print report selection

When the 'Print report' button is selected, a standard Windows print dialog is created.

Rational: Windows standard

Priority: Desired

	Satisfied?	Why or why not?
Identified by a number		
Identified by a short phrase		
Prioritized (imperative, important, desired)		
Rationale is given		
Tells what is required		
Tells under what situation		
Clearly written, unambiguous		
Avoids premature design		
Can't be broken into multiple more clear requirements		
Necessary requirement (also check that it wouldn't be better expressed as a non-functional requirement)		
Realistic		
Testable		
Stands on its own – other requirements don't need to be examined to understand what this means		
Uses terms/approach consistent with the rest of the document		

Problems:

- Identifying phrase captures when, but not what the requirement is saying.
- Includes premature design
- Possibly this should be a non-functional requirement since a standard print dialog should be used throughout the system

If this is going to be a functional requirement:

R02. Standard Print Dialog

When printing any report the system shall use the standard MS Windows Print Dialog.

Rational: The MS Windows Print Dialog box has become an industry standard for MS Windows application and the use of standards makes the software easier to use.

Priority: Important

R03. The system shall interface with the Actuarial Document Master

Rationale: In order to calculate the Adjusted Gross Revenue, the tables stored in the Actuarial Document Master will need to be accessed.

Priority: Imperative

	Satisfied?	Why or why not?
Identified by a number		
Identified by a short phrase		
Prioritized (imperative, important, desired)		
Rationale is given		
Tells what is required		
Tells under what situation		
Clearly written, unambiguous		
Avoids premature design		
Can't be broken into multiple more clear requirements		
Necessary requirement (also check that it wouldn't be better expressed as a non-functional requirement)		
Realistic		
Testable		
Stands on its own – other requirements don't need to be examined to understand what this means		
Uses terms/approach consistent with the rest of the document		

Problems:

- As this is written, it is not a functional requirement. Information about external interfaces belongs in Section 2.1 Product Perspective (high level identification of external interfaces), Section 2.5 Dependencies (more detailed explanation), and optionally, Non-Functional Requirement 5.2.2 External Interface Requirements (if more detail is needed). If more detail is not needed in Section 5.2.2, this section must be removed.

R04. AGR-Lite shall collect information in order to determine eligibility of AGR-Lite purchase:

- a.) User must be in an eligible state and country.
- b.) User must have five consecutive years of tax records, not including the immediate preceding year.
- c.) User's annual adjusted gross revenue must be \$2 million or less.
- d.) User must not have more than 50% of allowable income from commodities purchased for resale.
- e.) User must not exceed 83% of total revenue from potato production.

Rationale: Users should not be allowed to enter data and calculations unless they are eligible for the AGR-Lite package. This requirement will be used to ensure that eligibility for AGR-Lite is taken into consideration.

Priority: Imperative

	Satisfied?	Why or why not?
Identified by a number		
Identified by a short phrase		
Prioritized (imperative, important, desired)		
Rationale is given		
Tells what is required		
Tells under what situation		
Clearly written, unambiguous		
Avoids premature design		
Can't be broken into multiple more clear requirements		
Necessary requirement (also check that it wouldn't be better expressed as a non-functional requirement)		
Realistic		
Testable		
Stands on its own – other requirements don't need to be examined to understand what this means		
Uses terms/approach consistent with the rest of the document		

Problems:

- No short phrase
- Doesn't tell the situation when this should be done
- Most likely this should be broken into several more clear requirements

Rewrite:

R04. Determine Eligibility Early

Before collecting any user data, the system shall help the user determine if they are eligible to purchase AGR-Lite insurance. (See the Business Rule on AGR-Lite eligibility.)

Rationale: The producer needs to know if their farm is eligible for AGR-Lite insurance before they begin entering information into the system.

Priority: Imperative

An additional requirement is needed for each aspect of eligibility.

R05. User Report

AGR-Lite shall produce a report that calculates and displays the following information:

- a.) The user’s name, address, phone number, and email.
- b.) The user’s premium and coverage-level chart.

Priority: Imperative

Rationale: This program is to compute the user’s premium and display it in a user-friendly report. This requirement will be used to ensure that the generated report displays the correct information.

	Satisfied?	Why or why not?
Identified by a number		
Identified by a short phrase		
Prioritized (imperative, important, desired)		
Rationale is given		
Tells what is required		
Tells under what situation		
Clearly written, unambiguous		
Avoids premature design		
Can’t be broken into multiple more clear requirements		
Necessary requirement (also check that it wouldn’t be better expressed as a non-functional requirement)		
Realistic		
Testable		
Stands on its own – other requirements don’t need to be examined to understand what this means		
Uses terms/approach consistent with the rest of the document		

Problems:

- No priority is given
- Doesn’t tell the situation when this should be done

Rewrite:

R05. User Report

After producer information has been entered, the system shall generate a report that displays:

- a.) The user’s name, address, phone number, and email address.
- b.) The user’s premium and a coverage-level chart.

Rationale: The producer may want to see the contact information within the system and a summary of the premium and coverage.

Priority: Imperative