

Робота з вимогами

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Зміст

Що таке "потреби" і "вимоги"
Види та рівні вимог
Атрибути якості вимог
Як писати вимоги
BRD, FRD, SRS, User Stories, Use Cases



Що таке "потреби" і "вимоги"

Вимога — це умова або можливість, необхідна зацікавленій стороні для вирішення проблеми або досягнення мети.

Потреба — це високорівневе представлення необхідної вимоги.

Потреба — це кінцевий результат або мета. Це «чому ми це робимо».



Що таке "потреби" і "вимоги"

Побудувати будинок для
моєї великої родини

У будинку буде 3 спальні
2 маленькі спальні
1 головна спальня
Будинок повинен мати задній двір
Будинок має бути 3-поверховим
Підлоги повинні бути дерев'яними
Колір деревини повинен бути темно-коричневим

Що таке "потреби" і "вимоги"

Отримати роботу бізнес
аналітика

Треба пройти курс бакалавра
Треба створити резюме
Слід практикувати пробні співбесіди

Види та рівні вимог

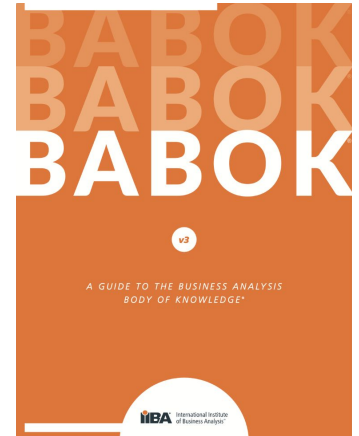
Business requirements

Stakeholder requirements

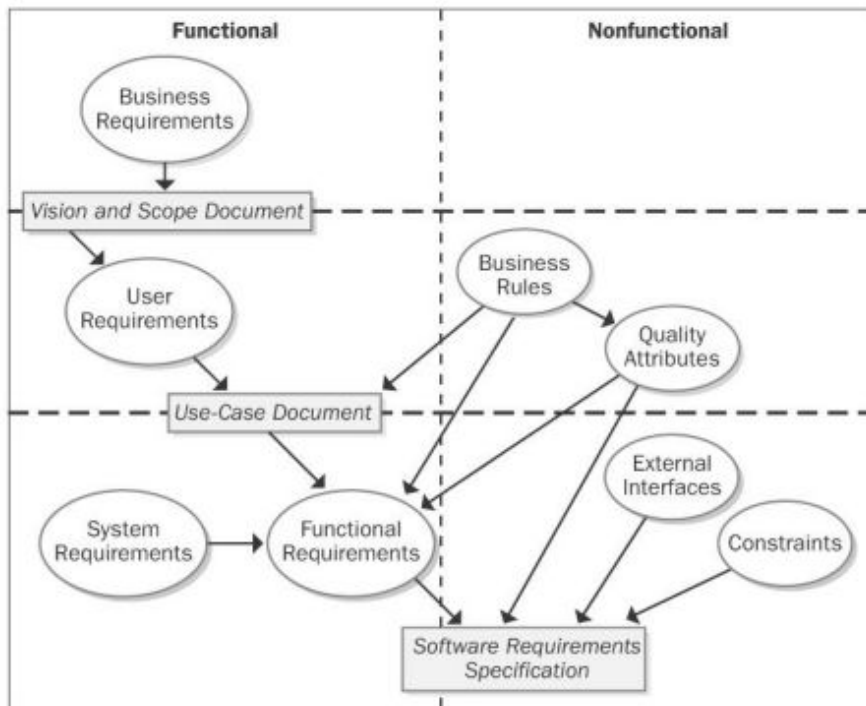
Solution requirements

- functional requirements
- non-functional requirements

Transition requirements



Види та рівні вимог



Атрибути якості вимог

Або критерії “хороших вимог”:

- Atomic
- Complete
- Consistent
- Concise
- Feasible
- Unambiguous
- Testable
- Prioritized
- Understandable
- Атомарні
- Повні
- Послідовні
- Лаконічні
- Можливі
- Однозначні
- Тестуємі
- Пріоритезовані
- Зрозумілі

Атрибути якості вимог

- Unambiguous
- Testable (verifiable)
- Clear (concise, terse, simple, precise)
- Correct
- Understandable
- Feasible (realistic, possible)
- Independent
- Atomic
- Necessary
- Implementation-free (abstract)

All software requirements, should be:

- **Concise** – expressed in clear and brief language.
- **Precise** – specific, defined, and unambiguous.
- **Clear** – free from ambiguity and jargon.
- **Complete** – include all necessary details for successful implementation.
- **Not contradictory** – must not contradict each other or previously established requirements.
- **Testable** – easily testable and verifiable.
- **Prioritized** – organized in order of importance.

1. **Clear or Understandable**
2. **Complete**
3. **Correct**
4. **Testable**
5. **Prioritised**
6. **Traceable**
7. **Achievable**
8. **Categorised**
9. **Relevant**
10. **Concise**
11. **Unique**
12. **Conformant**
13. **Owned**
14. **Consistent**

Як писати вимоги

- BRD,
- FRD,
- SRS,
- User Stories,
- Use Cases

BRD

Business Requirements Documents Structure:

- Summary
- Overview of the business goals of the project
- The scope of the solution
- List of project stakeholders
- Detailed overview of the requirements
- Metrics
- Constraints or limitations (time frame, budget, resources, etc.)

BRD

BUSINESS REQUIREMENT DOCUMENT 1

Project Name	Some Project
Feature Name	New cool feature

Document History

Version	Date	Status	Created By	Comment
1.0	Dec 26, 2020	Draft	John Doe	
1.1	Feb 12, 2021	Draft	John Doe	Corrected after feedback
1.2	Mar 30, 2021	Draft	Jane Doe	Added dates and data
2.0	May 04, 2021	Final	Jane Doe	Approved with Baby Doe

Document Reviewers

Name	Reviewed	Approved
Boss	V	V
Big Boss	V	X
Boss of Big Boss	V	
Big Boss of Boss of Big Boss		

BUSINESS REQUIREMENT DOCUMENT 2

TABLE OF CONTENTS

Project Overview	3
Feature Overview	3
Business Requirements	4
Data Requirements	4
Implemented dataflows	5
Future Plans	5

BUSINESS REQUIREMENT DOCUMENT 3

PROJECT OVERVIEW

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FEATURE OVERVIEW

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BRD

BUSINESS REQUIREMENT DOCUMENT

4

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BUSINESS REQUIREMENTS

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DATA REQUIREMENTS

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Data	Details	Source and Readiness	Volume
param_LP	Lorem ipsum dolor sit amet	Upstream 1	8 millions records
new_param	Excepteur sint occaecat cupidatat non proident	Upstream 1	3 millions records
ABC_value	Duis aute irure dolor in reprehenderit i	Upstream 2	12 millions records

BUSINESS REQUIREMENT DOCUMENT		5
IMPLEMENTED DATAFLOWS		
Performance expectation Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.		
Historical Reports Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.		
FUTURE PLANS		
UI Improvements discussions Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat.		



FRD

Functional Requirements Documents Structure:

1. Introduction
 2. Functional Objectives
 3. Interfaces
 4. The Context Model
 5. The Use Case Model
 6. User Stories
- Appendix
Glossary

SRS

Software Requirement Specification (SRS) Structure:

- 1. Introduction :
 - 1.1 Purpose of this Document
 - 1.2 Overview
- 2. General description
- 3. Functional Requirements
- 4. Interface Requirements
- 5. Performance Requirements
- 6. Design Constraints
- 7. Non-Functional Attributes
- 8. Preliminary Schedule and Budget
- 9. Appendices



User Stories

As a **Role**

A want to **feature**

So that I **have a value**:

Acceptance criteria:

- 1.
- 2.
- 3.

User Stories

As a **Authorized User**

A want **add products to Wish list**

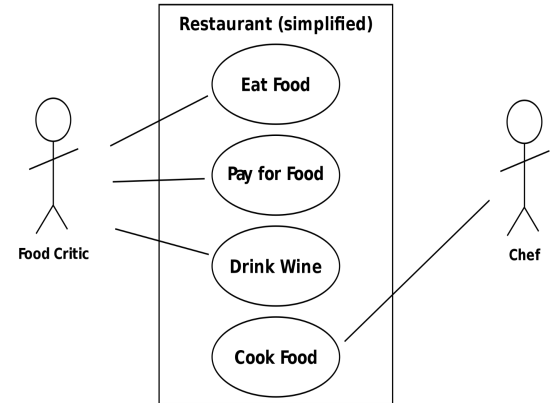
So that I **can find selected products any time**

Acceptance criteria:

1. "Add to Wishlist" button is displayed
2. On click "Add to Wishlist" button unauthorized user is redirected to Login form
3. On click "Add to Wishlist" button authorized user stays on the same page, but counter near the "Wishlist" on header of page shows 1 (or +1 to existing number)
4. Authorized user id able to open Wishlist in pop-up and find there the list of products with links to their pages.

Use Cases

UC1 - Product ordering	
Summary	Ordering process with status changes
Primary Actor	User, System
Secondary Actor	Admin
Precondition	User was authorized, user selected product and opened checkout page
Postcondition	All orders are stored in Admin panel archive
Main Flow	
Step #	Action
1	User makes checkout
2	System displays the Congratulation message
3	System generates new task in Admin panel
4	Admin assigns task and changes the status to "In progress"
5	User sees status change
Alternative Flow	
4a	User cancel the order
5a	System change the status to "Canceled" automatically
6a	Admin is not able to change the status
4b	Admin changes the status to "Rejected" and writes the comment
5b	System displays status and comment in Users profile with phone of sales department



Ще кілька прикладів з інтернету

Table 2 An example of a use case.

Name	Handle Replies								
Realized User Task	Manage Interaction Among Participants								
Initiating Actor	Meeting Facilitator								
Participating Actors	Meeting Participant								
Flow of events	<table border="1"> <thead> <tr> <th>Actors</th><th>System</th></tr> </thead> <tbody> <tr> <td>1. The Meeting Facilitator selects "Handle Replies" for a meeting and a question.</td><td></td></tr> <tr> <td></td><td>2. The system checks if all participants replied [Exception: Slow participant].</td></tr> <tr> <td></td><td>3. The system starts the "Close Question Service" and notifies the Meeting Initiator accordingly.</td></tr> </tbody> </table>	Actors	System	1. The Meeting Facilitator selects "Handle Replies" for a meeting and a question.			2. The system checks if all participants replied [Exception: Slow participant].		3. The system starts the "Close Question Service" and notifies the Meeting Initiator accordingly.
Actors	System								
1. The Meeting Facilitator selects "Handle Replies" for a meeting and a question.									
	2. The system checks if all participants replied [Exception: Slow participant].								
	3. The system starts the "Close Question Service" and notifies the Meeting Initiator accordingly.								
Exceptions	[Slow participant] The meeting facilitator decides whether to remind the participants or to close the question. In the first case s/he selects the "Remind Participant Service". In the second case s/he selects the "Close Question Service".								
Precondition	The meeting Initiator has initiated the meeting and asked some question.								
Postcondition	The participants have been reminded or the question is closed.								
Includes Use Cases	-								
Used Services	Check Participant Replies, Remind Participant, Close Question								
Non-functional Requirements	Response Time, Minimize Amount of Messages, Flexibility								

Name	Save item for purchase.
ID	UC_001
Description	While browsing items in the eStore, a user finds an item he is not ready to purchase yet, but he wants to save it to a list so that he can later find the item that he was previously interested in.
Actors	eStore customer.
Organizational Benefits	Increase sales by helping the customer remember products he was previously interested in.
Frequency of Use	20% of users save an item to be bought later each time they visit the site. 50% of saved items are purchased within one year of the saved date.
Triggers	The user selects an option to save an item.
Preconditions	User is viewing an item in the catalog.
Postconditions	The item selected to be saved is visible to the user when he views his saved items. The item selected to be saved is reflected as a saved item when the user views his eStore search and browse results.
Main Course	<ol style="list-style-type: none"> 1. System prompts user to confirm saving selected item instead of purchasing it right away. 2. User confirms to save now (see EX1). 3. System determines user is not logged in and redirects user to log on (see AC1). 4. User logs on (see AC2, AC3). 5. System stores the saved item (see EX2). 6. System redirects the user to their saved items list to view the full list.
Alternate Courses	<p>AC1 System determines user is already logged on.</p> <ol style="list-style-type: none"> 1. Return to Main Course step 5. <p>AC2 User logs off again.</p> <ol style="list-style-type: none"> 1. Return user to Main Course step 3. <p>AC3 User does not have an account already.</p> <ol style="list-style-type: none"> 1. User creates an account. 2. System confirms account creation. 3. Return user to Main Course step 4.
Exceptions	<p>EX1 User decides to purchase the item now.</p> <ol style="list-style-type: none"> 1. See "Purchase Item" Use Case. <p>EX2 System fails on saving item to list.</p> <ol style="list-style-type: none"> 1. System notifies user that an error has occurred. 2. Return user to Main Course step 1.

Use case:	Select products and requirement.
Iteration:	1, last modification: August 14 by Lect. Tachanun Kangwantrakool
Primary actor:	Member (wedding's partner)
Goal in context:	To choose products and create requirement to admin.
Precondition:	System must be fully configured; appropriate user ID and passwords must be obtained.
Trigger:	Member decides to use service.
Scenario:	<ol style="list-style-type: none"> 1. Member log onto the website. 2. Member enters his/her ID. 3. Member enters his/her password. 4. Member selects function to select products and create requirement. 5. The system displays all products. 6. Member choose products and click confirm. -see use case select products and requirement
Exceptions:	<ol style="list-style-type: none"> 1. ID or password is incorrect or not recognized-see use case log in. 2. Member doesn't have member account. -see use case register 3. Member select "purchase" before select any products -see use case online purchase
Priority:	To be implemented in basic function.
Frequency of use:	Moderate frequency
Channel to actor:	Via website (database system)
Secondary actors:	Admin
Channels to secondary actors:	database system
Open issues:	<ol style="list-style-type: none"> 1. Will we develop a capability of the website to high efficiency for user or online service 24 hours? 2. What is absolute guarantee the plan of wedding, if they have accident?

Дякую за увагу!



Домашнє завдання

Створити use case для фітчі, описаної в прикладі до user story

Створити user story для фітчі, описаної в прикладі до use case

