Muhomorka.bg

Software Requirements Specification

1.0

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1. Introduction

This document contains information about the specifications and expected behavior of the website Muhomorka.bg. It describes the functionality of the website and the user experience that needs to be provided in order of the website to achieve its goals. The document it separated to different topics and subtopics for better understanding of the reader. Muhomorka LTD is a business that is focused on selling exotic goods from the Middle east to the Bulgarian market. The purpose of Muhomorka.bg website is to provide a possibility for online shopping for the Bulgarian customers and also to provide additional useful information about the business and other topics that would be interesting for the online user.

1.1 Purpose

The software described in this document is the website Muhomorka.bg – the online part of an existing business about ethno goods. The website includes e-commerce part, blog and static information about the business. This document describes the functionality of the website and may be used for full understanding of the product and its goals, needs and expected behavior.

1.2 Scope

Muhomorka.bg aims to be a good platform for buying exotic goods online. Additionally, the blog part of the website needs to contain interesting information. All this should look appealing for the modern internet user and a lot of quality photographs is needed in order to achieve better user experience, aside from the main functionality.

1.3 Definitions, Acronyms, and Abbreviations

- Product – A basic item within the online shop. There is an option for the users to buy one or more products.
- Cart – this is the place where the products that the user would like to buy are stored for checkout, so the user could check his order, choose the delivery type and check the final cost of the order.
- Article – a blog post within the blog page.
- Admin – employee of the online business that would upload and edit articles, products and all kinds of other content on the website. Admins would also take care of existing orders from users and contact them if necessary.

2. General Description

Muhomorka.bg is a website created for the needs of an existing city shop for ethno goods. The purpose of Muhomorka.bg is to provide additional online information about the business and deliver the opportunity for users to buy products online. In addition, the website will provide a blog page where certain useful information will be uploaded. There would be also a static information about the location and history of the shop, plus legal information. The website content is supervised by administrator via the admin panel which is used for uploading new content and managing existing one.

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2.1 Product Perspective

Muhomorka is supposed to run on Wordpress with Woocommerce plugin installed. The idea is to use the open source platform for e-commerce in addition to the blog functionality that is natural for Wordpress. The result is a reliable and easy to customize and administrate simple online shop with blog functions that suits the existing offline business perfectly.

2.2 Product Functions

Muhomorka.bg would be used for the needs of an existing business. Therefore, the functions that this product would perform are mainly separated in three different perspectives:

a) E-shop for buying goods online
This part would serve the customers who want to buy products online. They could choose from hundreds of different products and buy them directly from the browser after filling the needed information. This information includes shipping address and general information about the customer. Users could also register an account within the website so their information would be stored and used for other purchases.

b) Blog and general information about the business
This part includes a blog page where administrators would upload all kinds of information like promotions, events, product descriptions and other articles that might serve for advertising and increasing the awareness of customers for the services of the business. This might include also pictures, videos and external links for other websites.

c) Admin panel
This is the background of everything the customer sees – Muhomorka.bg would change content dynamically so a flexible administration is needed. The admin panel would be used for operating orders from users, uploading products and information about them, uploading and changing articles for the blog, etc.

2.3 User Characteristics

Users of Muhomorka.bg would be able to buy products from e-commerce part and register accounts if they so desire (it's not necessary for them to register in order to buy online). They should be able to access the website from all kinds of mobile devices. They would be able to search for products but they won't be able to access the admin panel.

2.4 General Constraints

Muhomorka.bg is developed using Wordpress CMS with Woocommerce plugin installed. The design is done by modifying an existing theme – Fruitful. The design is made in a way that allows the website to be visible on all kinds of mobile devices – responsive design.

2.5 Assumptions and Dependencies

Muhomorka.bg website assumes that the users would have a basic understanding of how to use a computer and navigate through a website. It is also assumed that users and admins understand Bulgarian language, because everything on the website is written in this language.
It is assumed that anybody interested in browsing Muhomorka.bg would have internet connection and a device for browsing web pages.

3. Specific Requirements

3.1 External Interface Requirements

3.1.1 User Interfaces

Muhomorka.bg website shall follow basic website style and functionality. Landing page would consist of a javascript slider that slides through two or more images that would generally be used for presenting interesting information for the users – e.g. product presentation or promotions. The header of the whole website is used for the single purpose of the company logo, positioned in the center and surrounded by the brand colors with a specific overflow.

The interface is divided to four main items that are also represented in a menu bar. These items are:

- ОМ – Home or Landing page.
- Мухоморка –Basic information about the business with contacts, locations and basic text.
- Любопитно – this is the blog page that displays all articles on the website.
- Магазинът – this is the shop page that is used for the users to browse and buy products from the website.

Within the footer a link for the legal information might be found and with additional social buttons and an arrow button that scrolls back to the top of the page.

For mobile devices the user interface is similar, with the exception for the menu. There, the menu is displayed as a dropdown menu below the header.

3.1.2 Hardware Interfaces

This application can run on all kinds of devices that support browsing internet. This includes PC and mobile devices. This website does not write information directly on the user's computer, instead it uses its own database. All system information is stored on the server's disk. Internet connection is required to access the website.

3.1.3 Software Interfaces

Operating system and a web browser are needed to navigate through this website. It's important that the browser is set for displaying Cyrillic alphabet, because the content on the website is written in Bulgarian.

3.1.4 Communications Interfaces

Muhomorka.bg is using a standart HTTP web protocol.

3.2 Functional Requirements

This section describes specific features of the software project. All functions are also described in a use-case format and listed in the Use Cases Section.

3.2.1 User buys a product from the website

3.2.1.1 Introduction

One of the main purposes of Muhomorka.bg is the ability for the users to buy products from directly from their device. User may choose from hundreds of products presented in the shop page.

3.2.1.2 Inputs

The user should choose a product of his desire. Then he must choose the quantity and click the "Buy" button. Then the product is saved in the cart and the user is able to continue browsing or continue with his order. If he decides to continue with his order, he would need to fill his billing information – basic information, and address for the delivery of the products. The user must approve all of the information he filled and complete the order.

3.2.1.3 Processing

When the order is completed, an order content type is created in the admin panel of the website. The admin must check for orders regularly and send the ordered products manually.

3.2.1.4 Outputs

The user receives email with a summary of the order with a personal number of it and contact information. The user email is taken from the form the he filled previously.

3.2.1.5 Error Handling

Errors are handled either manually – from the admin after checking the order or automatically – from the form while the user is filling it. The form is programmed with expected behavior and type of content to be filled in the relative field. E.g. email field would require content that is expected for what email address would look like.

3.2.2 Admin uploads a product to shop page

3.2.2.1 Inputs

The products at the Muhomorka.bg shop page are uploaded via the Wordpress admin menu by the responsible administrator. Product is a content type added by the plugin Woocommerce which is a tool specifically designed for e-commerce. The administrator is filling the field that describe the product – picture(s), description, measurements, quantity, price, tags, categories, etc.

3.2.2.2 Processing

When the product is created they way described above, the product is shown automatically in the shop page.

3.2.2.3 Outputs

The product is visible in the shop page via the product view page.

3.2.2.4 Error Handling

Any possible errors should be operated manually by the one uploading the product. Any mistakes and wrong information should be observed and removed by the responsible administrator.

3.2.3 User is searching for an exact product

3.2.3.1 Inputs

At the product page there is a search engine available. This is executed via text field that searches for content only of type "product". The text field requires key words.

3.2.3.2 Processing

The search engine is taking the inputted keywords and sends request to the database for any products that consist those keywords.

3.2.3.3 Outputs

The results are displayed with the default product page layout, but include only products that include the keywords inputted by the user in the search bar.

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3.2.3.4 Error Handling
Any manual errors in the search bar are in the expense of the user.

3.2.4 Uploading a new article in the blog page

3.2.4.1 Introduction
Articles at Muhomorka.bg are important part of the content because they bring useful information about things that are considered generally interesting for the typical Muhomorka customer. Also, they are a source of fresh content and a lot of text, links and pictures that would be good for the search results in Google and other search engines.
3.2.4.2 Inputs
It is a job for the admin to insert the content of the article via the Wordpress admin menu. Users are only able to read and make no changes for the content whatsoever.
3.2.4.3 Processing
Article uploading is published through the Wordpress admin panel and may be saved there in draft status that could be suitable for unfinished or postponed articles.
3.2.4.4 Outputs
The output is a visible article in the blog page that is shown with the blog post view.
3.2.4.5 Error Handling
Any errors are possible only through the lack of attention by the administrator, who is responsible for the proper view and content of the articles. A very possible problem might be the bad choice of image size for reasons concerning the blog post view.

3.2.5 Browsing the static information on the website

3.2.5.1 Introduction
One of the main goals of Muhomorka.bg is about bringing awareness. In addition to the shop page from where people could buy products, the blog page, the about page and the legal information + contact via email and through facebook are available. Users may freely browse through the content and stay for some time learning something new about the business or the various topics concerning the target group.
3.2.5.2 Inputs
Information is accessible by navigating within the website through the main menu or the internal links.
3.2.5.3 Processing
Upon click on a link a relative page is displayed.
3.2.5.4 Outputs
When the desired information is found and read, there is no further action available (e.g. no comments are allowed at Muhomorka.bg). There is one exception that concerns the social buttons - Facebook and Email options for the users to contact the business owners and website administrators.
3.2.5.5 Error Handling
Any error would mean either that the website is broken or the user failed to navigate through the website successfully.

3.2.6 Change of front page slides

3.2.6.1 Introduction

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Upon landing at http://muhomorka.bg a use finds a huge slider with 90% of the screen width. This slider has its own pictures and often links connected to the relative pictures. Those pictures might be changed by the administrator so current information could be presented.

3.2.6.2 Inputs

The administrator is uploading the new images via the Theme management panel within the Wordpress admin panel. Admin should be very careful to choose the proper image size because if the size is not proper, the image would be stretched or shrinked. Also, if the admin so desires, he could also add a hyperlink behind the image so the slide could be clickable - this is often very useful because a picture might show only basic information (e.g. about promotions) and further click might lead to the blog page where the additional information awaits.

3.2.6.3 Processing

Slides are directly uploaded after filling the required content from the Wordpress theme management menu.

3.2.6.4 Outputs

The new slide is visible within the slider - another tab is added. Now the slider slides one more image and nothing else is changed. If a link exists, the slider is also clickable.

3.2.6.5 Error Handling

Errors would appear if the administrator fails to do the slide creation process. If a mistake is made, it's easy to remove the newly created slide and try again.

3.3 Use Cases

3.3.1 Use Case #1: Ordering a product

Description: One of the main purposes of the website is to provide option for online users to buy products online.

Actor: any user.

Preconditions: A user has already landed at http://muhomorka.bg

Basic flow:

1. User clicks the „МАГАЗИНЪТ" link from the main menu.
2. User browses the products and finds the one he would like to order.
3. User is clicking on that product.
4. User is picking the quantity. The maximum allowed number of any type of product is added so the user won't be able to buy more than what is available.
5. User clicks the button „Купи".
6. A pop-up message says that the product is added to the cart. There is a button that links to the cart. The user clicks that button or the button with a cart icon next to the main menu.
7. User is now in the cart page. There he can check the products he added to the cart and do the following:
    7.1.   Remove a product from the cart.
    7.2.   Change the quantity of a product in the cart.
    7.3.   Choose a delivery type - for Sofia, or for any other city in Bulgaria.
8. After the customer is OK with the cart content, he clicks the button "Поръчай".
9. The next page contains text fields that need to be filled with the information about the customer - address, name, email, etc.
10. When everything is filled properly, the user clicks "Поръчка".

11. The next page is a summary of the order with a unique number. User is receiving also the same summary via email. With that the order is complete.

Alternate flows:

  On step 9 from the basic flow, the user is able to log-in into the system and use his profile credentials that exclude him from the responsibility of filling his whole information again.

Exception flows:

If the user choose a product that is not available currently on the website (quantity = 0), he won't be able to click the button "Купи" and add the product to the cart.

If the user fails to fill the information that is required - email, phone number, name, city, address, then he won't be able to complete his order because the forms are expecting certain input.

Post conditions:

A order is sent to the database and is visible from the main menu. Also notification emails are sent to the administrator of the website and to the user that ordered the product.

3.3.2 Use Case #2: Uploading a product

Description: Products are added to the shop page by the administrator. In order to have a functional online shop, you have to present something to the customers.

Actor: Admin

Preconditions: Admin is logged into the Wordpress admin panel.

Basic flow:

1. Admin clicks "Products" item from the main Wordpress menu.
2. Admin clicks "Add a product"
3. Admin fills all the necessary information. There are fields for the name of the product, the price, SKU number, available quantity.
4. Admin adds a picture for the product from the gallery (before that he might need to add a picture to that gallery - this is happening from the "add a picture to the product gallery" link.
5. Admin clicks the button "Publish" („Публикуване").
6. The product is visible in the shop page.

Alternative flows:

Admin can save the product as a draft, so it could be edited and added to the shop page later. He can also edit existing products by filling different information in the fields that concerns him. Admin can also postpone the publishing of the product for different date and time or make it available only for certain people (password protected).

Exception flows:

If the admin fails to fill the product information carefully and make any mistakes, the product would appear badly in the shop page. This is basic woocommerce functionality so the admin should be extra careful. If the internet connection is lost during the post writing and during the "Publish" button click, the post might be lost and bad words and desperation from the admin are likely to appear.

Post conditions:

A new product is visible on the shop page.

3.3.3 Use Case #3: Uploading a new article

Description: The blog page is very important for Muhomorka, because it is a source of valuable information for the users. The blog is full of articles that are uploaded by the admin. It's important to create new articles regularly. There are two categories in the blog page -

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„Любопитно" and „Мухоморка". One is concerning the business and the other one is with interesting information for the target group about culture, products, history, etc.

<u>Actor:</u> Admin

<u>Preconditions:</u> Admin is logged into the Wordpress admin panel.

<u>Basic flow:</u>

1. Admin clicks "Posts" item from the main Wordpress menu.
2. Admin clicks "New post".
3. Admin fills in all the necessary information - post title and post content. Pictures are also available for uploading to the article, as well as all kinds of text formatting.
4. Admin is choosing a category for the article - „Любопитно" or „Мухоморка".
5. Admin clicks the button "Publish" and the article is uploaded and visible in the blog page.

<u>Alternative flows:</u>

Admin can save the product as a draft, so it could be edited and added to the shop page later. He can also edit existing products by filling different information in the fields that concerns him. Admin can also postpone the publishing of the product for different date and time or make it available only for certain people (password protected).

<u>Exception flows:</u>

Any mistakes done by the uploader are for his expense. This is basic wordpress functionality and posts are uploaded easily and fast, so the admin should be careful. If the internet connection is lost during the post writing and during the "Publish" button click, the post might be lost and bad words and desperation from the admin are likely to appear.

<u>Post conditions:</u>

A new article is visible on the blog page.

3.3.4 Use Case #4: Searching for a product

<u>Description:</u> Sometimes users are looking for an exact product and they just want to find it quickly. This is when they are using the search bar.

<u>Actor:</u> Any user

<u>Preconditions:</u> User is currently browsing the shop page.

<u>Basic flow:</u>

1. The users clicks the search bar so he is now able to type keywords there.
2. He is typing the keywords he is interested in. E.g. "t-shirt" and hits Enter button on the keyboard.
3. Search engine is sending query to the database and displays back results. They are displayed the same way the normal shop page is displayed.
4. If the user is happy with the results, he finds what he is looking for. If not - he tries to search again.

<u>Alternative flows:</u>

All search queries are stored in the browser so users sometimes can easily type what they are looking for - if they have already searched for it before. Search queries could also be sent from the url, using the php script behind it.

<u>Exception flows:</u>

Some users might be confused because they would expect to see a button that sends the query. Instead a hitting Enter is necessary. Also, the search engine is not searching for ANY keyword.

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If a user sends too many keywords it's possible that the search query won't be able to find anything. If no results are shown, a message saying that nothing is found is displayed. Then the users should make e new query or refresh the shop page.

Post conditions:

A query is done and the results are displayed. If no results are found, a message saying that is shown.

3.3.5 Use Case #5: Contact - Facebook and Email

Description: Users are able to contact the business owners via Facebook fan page or Email. This is done easily with two buttons in the footer.

Actor: Any user

Preconditions: User is browsing any page on the website.

Basic flow:
1. User scrolls down to the footer.
2. User clicks on either Facebook or Email button (represented with a stylish design suggestions).
   2.1   If Facebook button is clicked, the user is sent to the Facebook fan page.
   2.2   If Email button is clicked, email client is opened and the user is able to write an email to the email address that is set in the Wordpress settings.

Alternative flows:

Facebook fan page and email are available from other places e.g. they could be accessed manually.

Exception flows:

If the user has not email client installed on his computer, he won't be able to send email directly from the email button.

Post conditions:

A Facebook fan page is opened or Email client with a filled field for "Receiver" with the Muhomorka contact email.

3.3.6 Use Case #6: Contact - Adding new category and tag for products

Description: It is important that products are ordered nicely in the shop page, otherwise there would be a chaos and for the customers would be extremely difficult to find the things they are looking for. That's why categories and tags are important part of any product.

Actor: Admin

Preconditions: Admin is logged into the Wordpress admin panel.

Basic flow:
1. Categories
   a. Admin clicks "Products" item from the main Wordpress menu.
   b. Admin clicks "Categories" from the Products menu.
   c. On the left there are placeholders. Admin fills them with the needed information - name of the category, parent category, etc.
   d. Admin is clicking "add new category".
2. Tags
   a. Admin clicks "Products" item from the main Wordpress menu.
   b. Admin clicks "Tags" from the Products menu.

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c. On the left there are placeholders. Admin fills them with the needed information - name of the tag, short name, description, etc.

d. Admin is clicking "add new product tag".

Alternative flows:

Admin can edit or remove existing categories and tags.

Exception flows:

Tags and categories are associated with products, so the admin should be careful when creating new ones or editing existing ones. If a mistake is made, it could damage the order of products and its display.

Post conditions:

Tags and categories are created, edited and/or removed.

3.3.7 Use Case #7: Adding a new slide to the landing page slider

Description: The front page slider is interesting landing decision because it shows big pictures and often might be used for linking to the website content. Adding new and fresh pictures content there is generally a good idea.

Actor: Admin

Preconditions: Admin is logged into the Wordpress admin panel.

Basic flow:

1. Admin hovers over "Themes" menu item.
2. Admin clicks on "Theme options" link.
3. Admin clicks on "Slider" menu item.
4. Admin clicks on "Add New Slide" button.
5. Admin clicks on Upload image button
6. Admin is choosing an image from the gallery or uploading a new one.
7. Admin is choosing a link URL for the selected image or leaving it blank for no link.
8. Admin is clicking save button.

Alternative flows:

Admin can edit or remove existing slides.

Exception flows:

If a bad image size is chosen the slider image would look stretched or shrinked in a way that is not appealing for anybody.

Post conditions:

A new slide appears in the slider with a brand new image.

3.5 Non-Functional Requirements

3.5.1 Performance

Muhomorka uses Wordpress and simple PHP requests to the database are used from end end-users. Therefore it is a reliable platform that would handle a fair amount of requests. PHP corresponds with MySQL server database and a lot of queries at the same time are available. The expected visitor count per day is around 200. The server would be able to support a lot bigger amount of visitors, so there are no concerns regarding the performance. 999 of 1000 queries are expected to be executed without a problem.

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3.5.2 Reliability

The system behind Muhomorka is a fairly simple one. Wordpress ran at PHP MySQL server expecting not too many visitors at the same time. The general opinion of the system is quite good and no back-end problems are expected.

3.5.3 Availability

Muhomorka.bg should be available 24/7, 356 days in the year. Exceptions are possible for system maintenance when needed.

3.5.4 Security

Unauthorised access to the system and its data is not allowed.
The access permissions for system data may only be changed by the system's data administrator.
All system data must be backed up every week and the backup copies stored in a secure location which is not in the same building as the system.
All external communications between the system's data server and clients must be encrypted.

3.5.5 Maintainability

Closing the end-user access to Muhomorka.bg for maintenance is possible for up to 3 days without any restrictions. A maintenance note should appear on the website.

3.5.6 Portability

Transferring all of the information from Muhomorka.bg is very easy because of the simplicity and popularity of the system used. Everything could be moved to another place within less than a day.

3.6 Design Constraints

A huge constraint for Muhomorka.bg is the fact that it uses a premade CMS system - Wordpress with Woocommerce plugin installed. The goal is to use a premade system that would make it a lot easier for the administrator and the developer to execute the final product. Constrains about using the free theme and the CMS restrictions is something to consider.

3.7 Logical Database Requirements

A database is used for storing all the information on the Wordpress website. It is a common thing for that CMS and no additional work is needed from the developer but just creating the database. Wordpress and Woocommerce are taking care of the logic and order of that database.

3.8 Other Requirements

An administrator operating with customer orders is needed on a daily basis. This means that a person should be available all the time to take care of existing orders. The system is storing the orders as a content type and it is a job for a living person to operate with them, communicate with the users and deal with any problems that may occur during the process.

4. Analysis Models

4.1 Data Flow Diagram (DFD)
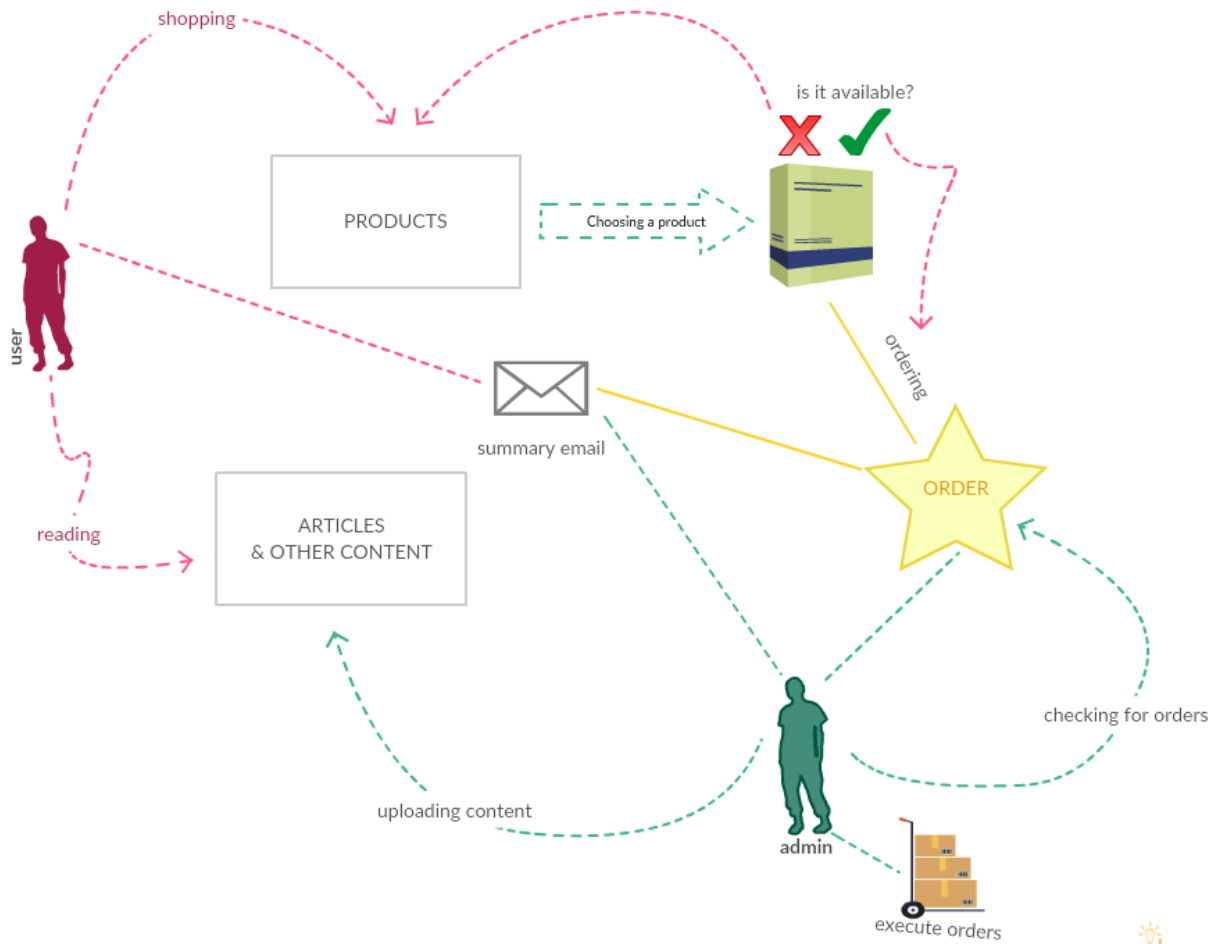
5. Change Management Process

Any change on this document is possible without big restrictions. The Muhomorka.bg website could be modified, changed and edited at any time depending on the desire of Muhomorka LTD. business management. Newer versions of this document need to display different version than this one (1.0) and an appropriate date.

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