May 7th, 2019.

Course: CS308-Software engineering

Group: 3/ Lady’s group

Project: Online Clothing Store

**The Requirements Document**

**Abstract**

Online Clothing Store is provided as an internet store with intention to provide the possibility of shopping from comfort of costumer’s home with all clothes displayed with appropriate images and affordable prices.

**Document Revision History**

Initial version of this project was submitted on March 7th after which project was presented to professor on March 14th where it acquired required approval.

Version 0 (initial version) – content: description, list of functions and user roles

Version 1 (March 17th, 2019) – adding features to *could have* and *would have* categories, adding non-functional features, detailed description of roles and features, activity bar chart or Gantt chart.

Version 2 (current) – adding task division with short description for each task and modifying the introduction as instructed by the professor.

**Glossary**

|  |  |
| --- | --- |
| Database | A collection of stored related data |
| C# | a general object-oriented programming (OOP) language for networking and Web development |
| Asp.net | ASP.NET is a web development platform, which provides a programming model, a comprehensive software infrastructure and various services required to build up robust web applications for PC and mobile devices |
| HTML | 1. Hypertext Markup Language, a standardized system for tagging text files to achieve font, color, graphic, and hyperlink effects on World Wide Web pages |
| Operating system | Controls and coordinates use of hardware among various applications and users |
| CSS | Cascading Style Sheets. CSS describes how HTML elements are to be displayed |
| GANTT CHART | A type of bar chart that illustrates a project schedule |

**Introduction**

The main aim of this project is to ease the shopping process of clothes to consumers and persuade them to shop again. Page is planned to have simple and user-friendly design but still provide tools necessary for shopping favourite articles. It is inspired by similar pages that already exist on the market, but it separates from them by its simplistic yet sophisticated and functioning design. Our page will have all necessary information properly organised and displayed so it’s easy to navigate through for both registered and unregistered visitors.

**System requirements specifications**

Since project is planned to be a website, system requirements for it are minimal including a working internet explorer programme of choice and a working network connection.

Website will provide a validation process based on email addresses during registration process. Mechanisms for checking if costumer is underage and validation of card information will be included to prevent illegal actions and provide higher security and reliability of the product.

A table in database is reserved to hold the items, item description, prices, sizes, quantity and availability status (in stock, out of stock). Two separate tables in database will be created to hold Costumer and Administrator entries with user names as a primary key. Consumer table will contain user names, email addresses (needed for verification), passwords, birth date, gender, physical address and bank card information (needed for purchase). Administrator table will contain user names, email addresses and passwords.

Technology intended to use is C# in combination with asp.net with possibility of including CSS or HTML for appearance purposes.

**Requirements list**

**Must have**

1. Registration and log in (high priority)
2. Search bar (high priority)
3. Sorting (high priority)
4. Selecting size and quantity then adding articles to shopping bag (high priority)
5. Displaying list of items in cart with options to proceed purchase (high priority)

**Should have**

1. Filtering (high priority)
2. Dropdown menus for categories (high priority)
3. English – Bosnian language buttons (medium priority)
4. Footer with physical locations of shops on map (medium priority)
5. Contact info (medium priority)

**Could have**

1. Social media buttons
2. Delivery types (free regular delivery, quick 24-48h delivery with additional pay)

**Would have**

1. Discount on quantity
2. Field for entering coupon codes for discount at Checkout
3. Season sales

**Project tasks**

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| --- | --- |
| **Task** | **Short description** |
| - Search | User will be able to search a database according to its query. It will provide a list of  results that best match what the user is trying to find. |
| - Dropdown menu | After clicking on a button or text selection, a list of items will appear from which user will be able to choose a value needed. |
| - Homepage | Navigation bar and welcome page that will be available to all users that will navigate them easily through the website. |
| - Shopping bag | Shopping bag, view construction that will interact between users and the system (database). |
| - Footer with map and contact info | Footer with social medias connections (share availability), privacy, security, and other documents. |
| - Database | Database will contain articles with prices, names, description and availability status. |
| - Registration and log-in | Registration information will be also stored in base from which it will be retrieved when user tries to log in |
| - Validation | Validation will be implemented through e-mail address which user must input during registration process |
| - Sorting | -User will be able to sort supply according to the product publishing date, then lowest &amp; highest price. |
| - Filtering | -User will be able to filter products according to price, color, type of  clothes, etc. in order to have clear preview of supply of the store. |

**Functional requirements**

1. **Registration –** users need valid email addresses to register as a Costumer. Required information for this process will be user name consisted of name and surname, 8-digit password, gender, birth date, physical address, and card information. Email address will be used as a verification method. If Costumer doesn’t validate its email, the entry should be deactivated.   
   To register as Administrator, one will have to enteremail address and access password provided by employer. One will be asked to enter its name and surname as user name and a field to create unique 8-digit password which will be linked to that account and stored in database.   
   Visitor role is default role with no registration is needed.
2. **Login –** once logged in, consumers will be able to select desired size of clothing item and quantity and add it to the cart. General item description, image, range of sizes and availability of item will be displayed publicly on the site.
3. **Selection and purchase process -**once costumer finds desired article, it will be asked to select size and quantity. When costumer clicks on cart button, list of selected articles will appear with selected size, quantity, price per article and Remove button. Total price will be displayed together with Checkout button.

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| **Primary actors** | **Use cases** |
| Visitor | * View articles * Search and filter * Register |
| Costumer | * Log in * Add to cart * Remove from cart * Purchase |
| Administrator | * Add articles * Edit articles * Remove articles * Modify categories * Add user * Modify user * Remove user * Announce sales * Set discounts |

**Use cases**

**ID:** FR1

**Name:** Registration

**Priority:** High (must have)

**Pre-condition:** browser, internet connection, employee password for Administrator account

**Post-condition:** Account is created

**Flow:**

* User enters homepage link
* User clicks ‘Register’ link and is taken to create account page
* Costumer user enters necessary information and clicks ‘Register’ button
* Administrator user enters email and provided password than clicks ‘Register’ button
* Administrator user is asked to enter username and new unique password to proceed registration

**What could go wrong:**

* Costumer enters birth date which identifies it as an underage and presses ‘Register’ button. Error message appears warning about legal consequences of underage online shopping and costumer is asked to enter new birth date which will not classify it as underage person. Legal underage boundary is 18 and once costumer enters valid birth date, the next step of registration will initiate.
* Costumer couldn’t validate its email address after which it will be asked to provide new address or verify entered. When validation is completed, message about successful registration will pop up.

**ID:** FR2

**Name:** Log in

**Priority:** high (must have)

**Pre-condition**: user is already registered

**Post-condition:** user will be able to proceed purchase process

**Flow**:

* User enters homepage link
* User clicks ‘Login’ link and log in page is displayed
* User enters user name and password and clicks ‘Login’ button
* Website recognises user name and password either as Administrator or Costumer and appropriate functions are enabled for use

**What could go wrong:**

* User enters invalid user name or password. Error message pops up indicating either one of login information is wrong and user is asked to enter again. Once entered correct, user can proceed using website according to the role its account is authorised with.
* User selects ‘forget user name or password’ option. User is asked to enter email address linked to the account it’s trying to access. Recovery link is sent to the email which through which user will be able to access its account and offered to enter new password. After user completes all steps, it will be able to proceed using page according to role its account has.
* User enters non-existing user name or password. Error message pops up indicating the error and offering ‘Register’ link. User clicks the link and create account page is loaded.

**ID:** FR3

**Name:** Selection and purchase process

**Priority:** high (must have)

**Pre-condition**: User is logged in as Costumer

**Post-condition:** Costumer’s purchase will be successful with items ordered set for packing and dispatching

**Flow:**

* Costumer enters homepage link and opens desired category
* Costumer clicks on article, selects size, enters quantity then clicks ‘Add to cart’ button
* Costumer finishes selecting and visits its shopping bag where all selected items are displayed
* Costumer clicks on ‘Checkout’ button and page with card information is displayed.
* Costumer clicks on buy and purchase is completed

**What could go wrong:**

* Costumer selects particular size and quantity and the article is currently not available in that size or quantity. Message pops up indicating item is out of stock and the currently available amounts and sizes of items.
* Costumer enters invalid card information and the purchase can’t be completed. Error message is displayed indicating the problem, prompting user to enter correct information to complete purchase. Costumer enters correct information and completes purchase process. Message pops up about successful completion of purchase with additional order information and estimated delivery dates.

**Non-functional requirements**

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| **Requirement** | **Definition** | **More Details** |
| NFR1: Hardware interface | Hardware requirement for the server and client | Operating System: It will be available for following OS: Android, MAC OS, Windows |
| NFR2: Software interface | Software requirement for the system | Database: Clothes types, prices, sizes, passwords, lists of customers |
| NFR3: Communication Interface | User needs connection to the internet to access the store via browser | Internet connection |
| NFR4: Security | The user must be ensured that his data will not be misused | The administrator can’t give out or reset password of customer, change any data without verifying with specific customer |
| NFR5: Availability | The user can visit site any time he/she wants | Store will be available 24/7 |
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**Timeline (Gantt chart)**

**Tasks:**

T1 and T2: Project proposal and requirements document

T3: Planning and home page implementation and Footer with physical locations of

Shops on map

T4 and T5: Selecting size and quantity then adding articles to shopping bag   
 and Dropdown menus for categories

T6. Search bar

Sorting

Displaying list of items in cart with options to precede purchase

T7. Filtering

English – Bosnian language buttons

Contact info

T8: Displaying list of items in cart with options to precede purchase

T9: Registration and log in

T10: Revision

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Week1 | Week2 | Week3 | Week4 | Week5 | Week6 | Week7 | Week8 | Week9 | Week10 | Week11 |
| T1 | |  |  |  |  |  |  |  |  |  |
| T2 | |  |  |  |  |  |  |  |  |  |
|  | T3 | | |  |  |  |  |  |  |  |
|  |  | T4 | | | | |  |  |  |  |
|  |  |  | T5 | | |  |  |  |  |  |
|  |  |  |  | T6 | | | |  |  |  |
|  |  |  |  |  |  | T7 | | |  |  |
|  |  |  |  |  |  |  | T8 |  |  |  |
|  |  |  |  |  |  |  |  | T9 | |  |
|  |  |  |  |  |  |  |  |  |  | T10 |

**References:**

**References from initial project description:**

1. <http://dspace.cusat.ac.in/jspui/bitstream/123456789/8252/1/onlineshoppingsystem.pdf> ,Last access: March 6, 2019
2. <https://www.shopify.com/sell/clothes> , Last access: March 6, 2019.
3. <https://www.lcw.com/en-UK> , Last access: March 6, 2019.
4. <https://studymoose.com/project-proposal-for-online-shopping-system-essay> ,   
   Last access:March 6, 2019.
5. <https://www.techopedia.com> , Last access: March 19, 2019

**Additional references:**

1. Project description: Online Clothing Store – by team member Refija Numanovic. Last edited: March 7th, 2019.
2. Requirements document example provided by course professor, downloaded from course Moodle page

**System evolution**

Evolution started with the requirement gathering process. After which the prototype is created and it was shown to the potential users and at the early stage the feedback came. Our web app will be adapted to the continuing growth (the size of system implementing the changes grows according to the lifestyle changes of the business) and also the software system will be feedback system ( This type of software systems constitute multi-loop, multi-level feedback and must be treated as such to be successfully modified or improved.)

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