TITLE

Ryan Coon

CST-451 Capstone Project Requirements Document

Grand Canyon University

Instructor: Professor Amr Elchouemi

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**ABSTRACT**

The company, with its rich history in the trade of medieval weapons, is seeking to expand its reach to customers globally through an online platform. The company has been in business for hundreds of years, offering medieval weapons for both defensive and offensive combat. Over the years, it has built a reputation for quality and authenticity. However, with changing times and the rise of digital commerce, the company has found it increasingly difficult to reach customers.

The proposed web application will allow users to view items, read weapon descriptions, and see the prices of the items. It will also offer an online shopping cart where customers can add, remove, and edit the quantity of products. This digital transformation aims to make shopping more convenient for customers and expand the company’s customer base. By addressing these needs, the company hopes to continue its tradition of excellence while adapting to the modern marketplace.

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| History and Signoff Sheet |

**Change Record**

|  |  |  |
| --- | --- | --- |
| **Date** | **Author** | **Revision Notes** |
| 3/3/2024 | Ryan Coon | Initial draft for review/discussion |
| 03/10/2024 | Ryan Coon | Project Requirements Document |
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| **Overall Instructor Feedback/Comments** |

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| **Overall Instructor Feedback/Comments** |

**Integrated Instructor Feedback into Project Documentation**

Yes  No

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Functional Requirements

**Use Cases**

Describe the sequence of functional actions a project performs with either textual Use Cases, UML Use Case diagrams, or if using Scrum, provide a link to the User Stories (see template included in course materials).

NOTE: Once the functional requirements have been completed, there may be situations where Use Cases or User Stories may need to be taken out of scope, possibly due to technical challenges or timeline challenges. Any Use Cases or User Stories that are taken out of scope once the project development has started must be approved by the mentor and instructor with justification as to why the functionality is being removed from the project. The following must be updated if any Use Cases or User Stories are taken out of scope:

|  |  |  |
| --- | --- | --- |
| **Use Case or User Story** | **Approval Date** | **Justification** |
| The user should be able to login and logout with their information and the use of clickable buttons. |  |  |
| The user shall be able to browse the inventory that is available |  |  |
| The user shall be able to search for a product/s by use of a keyword |  |  |
| The user shall be able to search through their orders placed by keyword or order number. |  |  |
| The user shall be able to filter products by way of categories |  |  |
| The user shall be able to add items to their wish list |  |  |
| The user shall be able to add items into their cart |  |  |
| The user shall be able to check out (place order) from the items in their cart |  |  |
| The user shall be able to browse through their orders in a list |  |  |
| The user shall be able to view the selected product description/details |  |  |
| The user shall be able to view category details |  |  |
| The admin shall be able to add products into inventory |  |  |
| The admin shall be able to delete products from inventory |  |  |
| The admin shall be able to edit products in inventory |  |  |
| The admin shall be able to browse all orders placed in a list |  |  |
| The admin shall be able to add a new category |  |  |
| The admin shall be able to delete a category |  |  |
| The admin shall be able to edit a category |  |  |

Non-Functional Requirements

**Use Cases**

Describe the sequence of non-functional actions a project performs with either textual Use Cases, UML Use Case diagrams, or if using Scrum, provide a link to the User Stories (see template included in course materials).

NOTE: Once the non-functional requirements have been completed, there may be situations where Use Cases or User Stories may need to be taken out of scope, possibly due to technical challenges or timeline challenges. Any Use Cases or User Stories that are taken out of scope once the project development has started must be approved by the mentor and instructor with justification as to why the functionality is being removed from the project. The following must be updated if any Use Cases or User Stories are taken out of scope:

|  |  |  |
| --- | --- | --- |
| **Use Case or User Story** | **Approval Date** | **Justification** |
| Easy to use interface |  |  |
| Unique yet attractive design |  |  |
| Easy to understand product descriptions |  |  |

Technical Requirements

**Use Cases**

Describe the tools and technologies used in the project.

NOTE: Once the technical requirements have been completed, there may be situations where technologies or tools may need to be taken out of scope or changed, possibly due to technical challenges or timeline challenges. Any technologies or tools that are taken out of scope or changed once the project development has started must be approved by the mentor and instructor with justification as to why the functionality is being removed from the project. The following must be updated if any technologies or tools are taken out of scope or changed:

|  |  |  |
| --- | --- | --- |
| **Technology or Tool** | **Approval Date** | **Justification** |
| **Eclipse** |  | **To be able to utilize Springboot and Spring security for a robust, secure, and scalable server side operations** |
| **Visual Studio Code** |  | **JavaScript, HTML, and CSS for creating a user-friendly interface and seamless user experience with the React framework.** |
| **MySQL Workbench** |  | **MySQL for efficient data storage and retrieval.** |

Logical System Design

Provide a diagram of the logical architecture of the system.

**Process Flow Diagram**

A diagram of a company

Description automatically generated

**Context Diagram**

A diagram of a flowchart

Description automatically generated

**Member Profile Dataflow**

A diagram of a company

Description automatically generated

**Category Dataflow**

A diagram of a company

Description automatically generated

**Product Dataflow**

A diagram of a product

Description automatically generated

**Order Dataflow**

A diagram of a product

Description automatically generated

User Interface Design

Provide a sitemap and user interface design diagram for each user interface screen in the application, if not applicable, define the components of the project as described in the handbook.

**Sitemap**

A diagram of a diagram

Description automatically generated

**Member Screenflow**

A screenshot of a computer

Description automatically generated

**Homepage**

A screenshot of a web page

Description automatically generated

**Products Page**

A screenshot of a web page

Description automatically generated

**Login Page**

A screenshot of a computer

Description automatically generated

**Cart Page**

A screenshot of a web page

Description automatically generated

**Member Profile Page**

A screenshot of a computer

Description automatically generated

**About Us Page**

A screenshot of a web page

Description automatically generated

Reports Design

Provide a listing of the reports that the system will provide, if applicable. If not, state that the system does not produce any reports and provide additional documentation as described in the handbook.