Software Requirement and Design Specifications

Campus Kick’s

Course Code:

Instructor: Miss Nida Munawwar

Project Team:

* Khalid Khurshid Siddiqui(21K-4673)
* Aqib Ali(21K-4518)
* Syed Zeeshan Ahmed(21K-4844)

Submission Date: 04-12-2023

Table of Contents

1. INTRODUCTION.....................................................................................................................................5

1.1. Purpose of Document.........................................................................................................................5

1.2. Intended Audience .............................................................................................................................5

2. OVERALL SYSTEM DESCRIPTION…….......................................................................................................6

2.1. Project Background.............................................................................................................................6

2.2. Project Scope ......................................................................................................................................6

2.3. Not In Scope ........................................................................................................................................6

2.4. Project Objectives ...............................................................................................................................6

2.5. Stakeholders ........................................................................................................................................6

2.6. Operating Environment ......................................................................................................................6

2.7. System Constraints..............................................................................................................................6

2.8. Assumptions & Dependencies ............................................................................................................6

3. EXTERNAL INTERFACE REQUIREMENTS..................................................................................................7

3.1. Hardware Interfaces ...........................................................................................................................7

3.2. Software Interfaces.............................................................................................................................7

3.3. Communications Interfaces ...............................................................................................................7

4. FUNCTIONAL REQUIREMENTS...............................................................................................................8

4.1. FUNCTIONAL HIERARCHY....................................................................................................................8

4.2. Use Cases............................................................................................................................................8

4.2.1. [Title of use case] ...........................................................................................................................8

5. NON-FUNCTIONAL REQUIREMENTS......................................................................................................9

5.1. Performance Requirements...............................................................................................................9

5.2. Safety Requirements ..........................................................................................................................9

5.3. Security Requirements .......................................................................................................................9

5.4. User Documentation...........................................................................................................................9

SDS.............................................................................................................................................................10

6. SYSTEM ARCHITECTURE.........................................................................................................................11

6.1. SYSTEM LEVEL ARCHITECTURE............................................................................................................11

6.2. SOFTWARE ARCHITECTURE.................................................................................................................11

7. DESIGN STRATEGY...................................................................................................................................12

8. DETAILED SYSTEM DESIGN.....................................................................................................................13

8.1. DATABASE DESIGN..............................................................................................................................13

9. APPLICATION DESIGN.............................................................................................................................15

10. REFERENCES.........................................................................................................................................15

11. APPENDICES.........................................................................................................................................17

**Software Requirements Specification (SRS) / Software Design Specification (SDS) Document**

**1. INTRODUCTION**

**1.1. Purpose of Document**

This document serves as the Software Requirements Specification (SRS) and Software Design Specification (SDS) for Campus Kicks, a shoe website targeting students and young individuals with leadership minds.

**1.2. Intended Audience**

The intended audience for this document includes developers, designers, project managers, and stakeholders involved in the development and maintenance of Campus Kicks.

**2. OVERALL SYSTEM DESCRIPTION**

**2.1. Project Background**

Campus Kicks is an online platform designed to provide a unique shopping experience for students and young leaders, offering a curated selection of trendy and quality footwear.

**2.2. Project Scope**

The scope of Campus Kicks includes an e-commerce platform with features such as product browsing, user accounts, cart management, and secure checkout.

**2.3. Not In Scope**

The project does not include physical inventory management or brick-and-mortar store operations.

**2.4. Project Objectives**

* Provide an intuitive and user-friendly online shopping experience.
* Cater specifically to the preferences of students and young individuals.
* Ensure secure and reliable transaction processing.

**2.5. Stakeholders**

* Customers (students and young individuals)
* Developers
* Designers
* Project Managers

**2.6. Operating Environment**

The system will operate on web browsers and mobile devices, ensuring compatibility with popular platforms like Chrome, Firefox, Safari, and Edge.

**2.7. System Constraints**

Limited initial budget for development and maintenance.

**2.8. Assumptions & Dependencies**

Assumes a stable and secure internet connection for users. Dependencies include third-party payment gateways and hosting services.

**3. EXTERNAL INTERFACE REQUIREMENTS**

**3.1. Hardware Interfaces**

The system will interface with standard web browsers and mobile devices.

**3.2. Software Interfaces**

Integration with payment gateways for secure transactions.

**3.3. Communications Interfaces**

The system will communicate with users via email for order confirmations and updates.

**4. FUNCTIONAL REQUIREMENTS**

**4.1. FUNCTIONAL HIERARCHY**

* User Authentication
* Product Browsing
* Cart Management
* Checkout Process
* Order Confirmation

**4.2. Use Cases**

4.2.1. User Authentication

* **Description:** Users can create accounts or log in.
* **Actors:** Registered Users
* **Preconditions:** User has an active internet connection.
* **Postconditions:** User gains access to personalized features.

(Include similar sections for other use cases)

**5. NON-FUNCTIONAL REQUIREMENTS**

**5.1. Performance Requirements**

* The website shall load within 3 seconds on a standard internet connection.

**5.2. Safety Requirements**

* Customer data shall be encrypted to ensure privacy.

**5.3. Security Requirements**

* Secure Sockets Layer (SSL) encryption for all data transmission.

**5.4. User Documentation**

* Comprehensive user guides and FAQs will be provided on the website.

**6. SYSTEM ARCHITECTURE**

**6.1. SYSTEM LEVEL ARCHITECTURE**

The system will follow a client-server architecture.

**6.2. SOFTWARE ARCHITECTURE**

The software will be developed using a scalable and modular architecture to accommodate future updates.

**7. DESIGN STRATEGY**

The design strategy focuses on a responsive and aesthetically pleasing user interface, prioritizing user experience.

**8. DETAILED SYSTEM DESIGN**

**8.1. DATABASE DESIGN**

* Database management system: MySQL
* Tables: Users, Products, Orders

(Include detailed schema and relationships)

**9. APPLICATION DESIGN**

* User Interface: Responsive web design
* Frontend: HTML, CSS, JavaScript
* Backend: Node.js, Express.js

(Include other relevant details)

**10. REFERENCES**

List any external documents or resources referenced during the development.

**11. APPENDICES**

Include any additional information, diagrams, or supporting documents.

This SRS/SDS document provides a comprehensive overview of the Campus Kicks project, outlining its purpose, scope, requirements, and design aspects.

Top of Form