UNIVERSIDAD DE LAS FUERZAS ARMADAS

ESPE

**Object-oriented programming**

**NRC: 9642**

**Binnacle N° 3**

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**Binnacle- Specific Requirements - EVSU\_Store**

**Date:** 20/07/2023

**Subject**: EVSU\_Store Specific Requirements Meeting

**Location:** Espe

**3. Specific Requirements**

During today's meeting, the focus was on defining the specific requirements for the EVSU\_Store software application. These requirements are crucial to ensuring that the software meets the needs of the store and its customers while maintaining high standards of performance and security.

**3.1 External Interfaces**

The team discussed the various external interfaces that the software will interact with:

API: The software will utilize text generation APIs to create reviews of the products sold in the store, enhancing the business's online presence.

User Interface: It was agreed that the user interface should be intuitive and easy to use to ensure a positive user experience.

Database Interface: Interaction with the MongoDB database will be essential for storing and retrieving information efficiently.

**3.2 Functions**

The following functions were identified as key requirements of the software:

Inventory Management: The software will allow the addition, removal, and updating of products in the store's inventory.

Sales Tracking: It will record sales and generate comprehensive reports to monitor the store's performance.

Customer Information Management: The system will store and manage customer information to provide personalized customer service.

Vendor Recommendation: The software will suggest suitable vendors based on component compatibility and quality, streamlining the procurement process.

Compatibility Algorithm: An algorithm will be implemented to generate compatibility between different components, aiding in assembling complete personal computers.

Payment System: The software will include a secure and efficient payment system to facilitate transactions.

Text Generator: A text generator will be employed to automate the creation of reviews and improve the business's online presence.

Object Management: Different classes containing various unique objects will be handled to manage the store's items for sale.

**3.3 Performance Requirements**

The software must be able to handle multiple clients simultaneously without degrading performance. Queries to the database must be efficient and fast. To achieve this, indexes will be used on relevant columns to speed up database queries. Additionally, a cached object model will be implemented to reduce access times and improve application efficiency.

**3.4 Logical Database Requirements**

The data model for the database will be specified, defining data types, restrictions, validations, tables, and relationships to be used.

**3.6 Design Constraints**

The software will adhere to design patterns to ensure code quality and maintainability. Frameworks and libraries will be utilized to expedite development and ensure compatibility with other systems. Scalability and performance will be considered to handle large volumes of data or a high workload. Security will be addressed through authentication, authorization, encryption, and session management restrictions.

**3.7 Software System Attributes**

The software will possess various attributes, including portability, usability, scalability, security, performance, efficiency, integration, and reliability. These attributes will be specific and measurable to enable objective evaluation of the project's success.

**3.8 Organizing the Specific Requirements**

The specific requirements will be organized as follows:

Stakeholder Needs: The needs of the client, end-users, and other relevant parties will be identified and addressed.

Grouping Requirements: Requirements will be grouped by functionality to ensure comprehensive coverage and effective management and implementation.

Prioritization: Requirements will be prioritized based on their importance to the client and end-users.

Verification and Validation: Requirements will undergo verification and validation tests to ensure they are successfully met.

The next meeting is scheduled for [Insert Next Meeting Date] to review the progress made on gathering and documenting the specific requirements and to discuss the development plan going forward.