Online Shopping System (Shopee)

Supplementary Specification

Version 1.0

Revision History

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Supplementary Specification

# Introduction

The Supplementary Specification provides an overview of the entire document. It  
includes the purpose, scope, definitions, acronyms, abbreviations, references, and  
overview of this Supplementary Specification. It also captures the system requirements  
that are not readily captured in the use cases of the use-case model. Such requirements  
include:  
- Legal and regulatory requirements, including application standards.  
- Quality attributes of the system to be built, including usability, reliability,  
performance, and supportability requirements.  
- Other requirements such as operating systems and environments, compatibility  
requirements, and design constraints

This along with use case models, use case specifications and design models will serve as the primary input to the developers, designers, and other groups working on the development and maintenance of Shopee- An Online Shopping System.

## Purpose

The aim of the supplementary specification document is gathering details as follows:

* Sets of features and capabilities that must be provided to users.
* System quality attributes such as usability, reliability, efficiency, and criteria for supportability.
* For this software application, design constraint.

## Scope

The Supplementary Specification captures all the requirements in a single document. The  
Shopee Online Shopping System that is to be developed provides the buyer and seller an online friendly environment to interact with shopping process (search, view product; create order; etc.)

## Definitions, Acronyms, and Abbreviations

No

## Overview

The Supplementary Specification will provide a detailed description of Student  
Management System. This document will provide the outline of the requirements,  
overview of the characteristics and constraints of the system. The second part of this document refers to the feature set that will be offered to the end-user. From the third to the seventh part, it mainly concerned with quality attributes of the system, including usability, reliability, performance, and supportability requirements.

# Functionality

## User (Both Buyer and Seller)

* The system allows user to create an account
* The system allows user to edit profile
* The system allows user to change password
* The system allows user to link account to a bank
* The system allows user to remove a bank account

## Buyer

* The system allows buyer to search and view product
* The system allows buyer to share product
* The system allows buyer to rate purchased product
* The system allows buyer to search, view order
* The system allows buyer to create order
* The system allows buyer to cancel order
* The system allows buyer to add a product to the shopping cart
* The system allows buyer to remove a product from the shopping cart
* The system allows buyer to chat with seller
* The system allows buyer to chat with Shopee customer service

## Seller

* The system allows seller to find orders need to be processed
* The system allows seller to export orders information
* The system allows seller to sort orders
* The system allows seller to select shipping methods
* The system allows seller to search for his/her shop’s products
* The system allows seller to add new products
* The system allows seller to choose manipulation methods
* The system allows seller to view his/her shop’s products

## System

* The system shall add notification into users’ email.
* The system shall manage authentication.

# Usability

The system uses a web browser as an interface. Students and teachers access the system via a web browser of Internet-connected devices:

* + Estimated time for each operation is fast in ideal condition, sometimes depends on the Internet speed.
  + User should be able to use all functionalities specified in his/her role on the page after a single sign-on.
  + No particular training is required for the users.
  + The interface of system is user-friendly.

# Reliability

## Availability

- The system is 24/7 available.

## Mean Time Between Failures (MTBF)

The system is allowed to be out of order at most twice a year.

## Mean Time To Repair (MTTR)

- If system crashes down, the system support staff should be notified at once. This will be achieved by real-time monitoring of the systems.

- Any server hardware related to downtime should be resolved and the service should be restored within an hour’s time.

- Any external services downtime should be resolved and the service should be restored within a three-hour time period.

## Accuracy

- Specify precision (resolution) and accuracy (by some known standard) that is  
required in the systems output.

## Maximum bugs or defect rate

- Usually expressed in terms of bugs/KLOC (thousands of lines of code), or  
bugs/function-point

## Information Security

- The system provides 100% information security

# Performance

## Response time for a transaction

- Fast. Maximum 5 seconds.

## Throughput

The system shall be able to handle 500000 transactions per second.

## Capacity

The system is capable of dealing with 2000000 users at a time.

# Supportability

## Internet Protocols

TCP/IP protocol

## Information Security

The system is secured.

## Extensibility

The system should be built so that it can be extended to support additional  
functionality in future releases.

## Maintenance

Minimum once a month

# Design Constraints

## Software Language Used and framework:

-HTML, CSS, JavaScript.

- SQL – Structured Query Language is used to access relational database. All interactions with database system are performed using SQL.

-Spring, Hibernate

## Development tool

Visual Code Studio, IntelliJ, Postman, Xampp

## Architecture and Design

The system is to be designed based on Model-View-Controller architecture. The actual design is to be split into following layers:

* *Views:* There is a clear separation between the screens that interact with the user and the components that process all the data and deliver the information to the screens. The web server supports and serves content based on what the user requests.
* *Models:* All the business logic is represented by models in this layer. Models are referred to, but do not directly communicate with views. Models are pure Java objects that corresponds to one database entity in the DBMS only.
* *Controllers:* The actual interaction between the Views and the Models are handled in this layer. In this web application, the controllers define the routes to process request from views and request models to get appropriate resources.

# Online User Documentation and Help System Requirements

- A link to help page is presented in the footer.

- Any terms that may not be immediately clear to the users should have a tooltip showing its definition.

- The application has a hotline and email at the “Contact Us” section that will let users send emails and get reply as soon as possible by the customer support department

# Purchased Components

Not required

# Interfaces

## User Interfaces

- The interface of the system is implemented based on existing web browsers: Google Chrome, Firefox, Cốc Cốc, etc.

## Hardware Interfaces

The existing Local Area Network (LAN) will be used for collecting data from the users and also for updating the system’s catalog.

## Software Interfaces

Firewall and other network security solutions will be applied to prevent unauthorized access to the system.

## Communications Interfaces

Shopee will be connected to the Internet

# Licensing Requirements

License belongs to Shopee

# Legal, Copyright, and Other Notices

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# Applicable Standards

ISO/IEC 27001 - Information Technology Management.