Software Design Specification (SDS)

Project Name: “Chapter Find”– Online Bookstore
Prepared By: Ahmed Amr, Mohamed Wael, Mohamed Eslam, Malek Mohamed, Ahmed Wael
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1. Introduction

1.1 Purpose

The purpose of this document is to describe the design, architecture, and technical specifications of the [“Chapter Find”– Online Bookstore]. It outlines the functionality, system components, and design decisions to be followed during the development process.

1.2 Scope

This SDS covers the design and implementation details of the [“Chapter Find”– Online Bookstore]. The software will perform the following major tasks:

- **Book Browsing and Search**: Allow users to search, browse, and view detailed book information.
- **Purchase and Payment Processing**: Facilitate secure book purchases with online payment options.
- **Order Tracking**: Enable users to track the status of their orders.
- **Admin Book Management**: Allow admins to add, edit, and delete book listings.
- **Shipping Management**: Allow users to select and track shipping methods for purchased books.
- **Book Categorization**: Enable users to browse books by category, genre, or theme for easier discovery.

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2. System Overview

The system consists of the following components:

- **Frontend**: HTML, CSS, java script [Razor page using ASP.net]
- **Backend**: C#
- **Database**: SQL Server

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3. System Architecture

3.1 Architectural Design

This project follows the architecture, where:

- **Frontend** communicates with the backend using Protocol.
- **Backend** interacts with the database to manage and retrieve data.

3.2 Data Flow

1. **User Interaction**: Users interact with the frontend interface to browse, search, and make purchases.
2. **Request Processing**: The frontend sends an API request to the backend server for specific actions.
3. **Data Handling**: The backend processes the request, interacts with the database, and fetches or updates the necessary data.
4. **Response**: The backend sends the response back to the frontend, updating the UI.

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4. Database Design

4.1 Database Schema

The system will store data in [insert database type, e.g., relational (MySQL), NoSQL (MongoDB)] with the following entities and relationships:

Table 1: [Description of table/entity]

- **Column 1**: [Field description]
- **Column 2**: [Field description]

Table 2: [Description of table/entity]

- **Column 1**: [Field description]
- **Column 2**: [Field description]

Note: Describe the main tables or collections and their relationships (e.g., one-to-many, many-to-many).

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5. Technology Stack

- **Frontend**: HTML, CSS, java script [Razor page using ASP.net]
- **Backend**: ASP.NET,C#
- **Database**: SQL management system
- **Hosting**: AWS, Heroku, Google Cloud, myASP

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6. Testing Plan

6.1 Unit Testing

Each module and function will undergo unit testing to ensure that individual components are working as expected.

6.2 Integration Testing

Integration tests will validate that different modules (frontend and backend, or backend and database) work together as expected.

6.3 User Acceptance Testing (UAT)

End users will be involved in testing the system to verify that it meets their requirements and expectations.

6.4 Performance Testing

Stress and load testing will be conducted to ensure the system can handle the required number of users and operations without degradation in performance.

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7. Conclusion

The [“Chapter Find”– Online Bookstore] is designed to fulfill the specified functional and non-functional requirements as described in this SDS. The design outlined here will ensure that the system is robust, scalable, and user-friendly, providing the intended value to its users.