.Net Forte Training

Case Study

Online Book Store

Technical Design Document

Version 0.1

December 2022

Internal Use Only

##### Document History

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| v. # | Date | Author, Org Unit | Status | Comment / Description of Change |
| 0.1 | 10/05/2023 | Sagar Parit | Draft | Initial Technical detailed design |
|  |  |  |  |  |
|  |  |  |  |  |

##### Reviewers:

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| Name | Role | Feedback Received |
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| Santosh Kumar Chaudhary | Developer |  |
| Sagar Parit | Developer |  |
| Saurabh Kumar | Developer |  |

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| Name | Role | Approval Received |
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| Name | Role |
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##### Table of Contents

[1. Introduction 5](#_Toc65091310)

[1.1 Purpose 5](#_Toc65091311)

[2. Design Alternatives Considered and Rejected 5](#_Toc65091312)

[3. Project Standards, Convention and Procedures 5](#_Toc65091313)

[3.1 Design Standards 5](#_Toc65091314)

[3.2 Naming Conventions 5](#_Toc65091315)

[3.3 Programming Standards 5](#_Toc65091316)

[3.4 Tools Used 6](#_Toc65091317)

[4. Class Design Details 6](#_Toc65091318)

[5. Design Elements 6](#_Toc65091319)

[Description 6](#_Toc65091320)

[Wireframe 6](#_Toc65091321)

[6. UI 6](#_Toc65091322)

[7. API’s Information 7](#_Toc65091323)

[API Methods 7](#_Toc65091324)

[8. Data Design Details 7](#_Toc65091325)

[9 Reviewer Section 8](#_Toc65091326)

# Introduction

The objective of this case study is building an ASP.NET Core Web App to retrieve data from a database using Entity Framework Core Database-First Approach.

## Purpose

The Scope of this document is to provide detailed design for all changes needed to be made in the case study application to implement the required changes under the scope of Online Book Store for the case study.

Design Assumptions & Constraints:

|  |  |
| --- | --- |
| 1 | UI design completed for Online Book Store. |
| 2 |  |
| 3 |  |
| 4 |  |

# Design Alternatives Considered and Rejected

|  |
| --- |
|  |

# Project Standards, Convention and Procedures

All technical designs considered must follow the agreed upon architecture identified in this document:<link>

## Design Standards

Subsequent activities based on this design shall comply with the design standards that are already in use with the application.

## Naming Conventions

All Naming conventions shall comply with the standards that are already in use with the application.

## Programming Standards

Subsequent activities based on this programming shall comply with the programming standards that are already in use with the application.

## Tools Used

List out any special/additional tools required to accomplish task.

|  |  |
| --- | --- |
| 1 | Swashbuckle.AspNetCore.Swagger 6.5.0 [[(link)](https://www.nuget.org/packages/Swashbuckle.AspNetCore.Swagger/6.5.0?_src=template)](https://www.nuget.org/packages/Swashbuckle.AspNetCore/6.5.0?_src=template) |
| 2 |  |

# Class Design Details

The details of class design are described as a part of the Class Design Document (Developers Handbook). This includes the following elements: class design, component model, sequence diagram, view model, business model, new/existing APIs, collaboration diagram, state chart diagram and activity diagram.

Has the Class Design Document been provided with these details?

Yes

No

# Design Elements

|  |  |
| --- | --- |
| Design Element Name: | UI Design, Data components, API and Database updates |
| Brief Description: | Develop API for Online Book Store |
| UI Page, API, Class | BookStoreController.cs |
| Specifications: | **Scenario**: Our fictional company, "OnlineboookStore," wants to provide a Web API to allow developers to access product data from their existing database. They already have a SQL Server database with a "OnlineBook" table containing product information. They want a Web API that can retrieve Book data and provide it to external clients. UI should perform CRUD operations.  Test the Web API Run your ASP.NET Core Web API project and test the endpoints using tools like Postman or Swagger UI. Here are some example requests:   * GET /api/books - Retrieve all books * GET /api/authors - Retrieve all authors * GET /api/categories - Retrieve all categories |

# UI

Identify UI pages in scope if already exist. If these are new, specify page name and route that will be used.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| UI Pages & Components in scope | |  |  |  | | --- | --- | --- | | Page Name | Route | New | |  |  |  | |
| View Model | Provide View Model JSON:   |  | | --- | |  | |
| CSS/JS | Are you adding any CSS or JS to UI Page? Yes  provide a reason below:   |  | | --- | |  | |

# API’s Information

Provide detailed documentation on the API’s you will be using. If this is a new API provide the data elements required for the UI to share with API designers.

Provide sample JSON output and indicate the mapping elements that will be used.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| API Details: | |  |  |  |  | | --- | --- | --- | --- | | API Name | Method Used | Parameters | New | |  | HttpGet | **Input**:  **Output**: | ☒ | |
| JSON Sample output along with Mapping | |  | | --- | |  | |

# Data Design Details

The details of data modeling are described as a part of the Data Model Document. This includes the following elements: data analysis table, database design techniques, physical data model diagram, physical database design and physical database sizing.

Has the Data Model Document been provided with these details?

Yes

No

|  |  |
| --- | --- |
| Data Model Documents | [LPL Data Mapping.xlsx (sharepoint.com)](https://zurichinsurancenam.sharepoint.com/:x:/r/sites/UltraModernization/_layouts/15/Doc.aspx?action=edit&sourcedoc=%7Bb7da7dd9-5d44-4d2f-a150-36e429be247a%7D&wdOrigin=TEAMS-ELECTRON.teamsSdk.openFilePreview&wdExp=TEAMS-CONTROL&web=1) |
| Database Required: | |  |  | | --- | --- | | Check if Used | Instance | |  | UDB | |  | DB2 | |  | SharePoint/Excel | |  | Resource/Redis | |
| Tables Used | |  |  |  |  |  | | --- | --- | --- | --- | --- | | DB Instance | Table Name | New | Column Name | New | |  |  |  |  |  | |  |  |  |  |  | |  |  |  |  |  | |
| Stored Procedures | |  |  |  | | --- | --- | --- | | DB Instance | SP Name | Changes Required | |  |  |  | |  |  |  | |
| Data | |  |  |  |  | | --- | --- | --- | --- | | DB Instance | Table Name | New Data Inserted | Data Removed | |  |  | <SQL statement> | <SQL statement> | |  |  | <SQL statement> | <SQL statement> | |

# Reviewer Section

|  |  |
| --- | --- |
| Reviewed By |  |
| Date |  |

|  |  |  |
| --- | --- | --- |
| Category | Approval | Comments/Feedback |
| UI |  |  |
| API |  |  |
| Data |  |  |
| Architecture |  |  |