**1.Revision History**

**Revision History identify changes to the Design Document.**

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| --- | --- | --- | --- |
| **Name** | **Date** | **Description** | **Version** |
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**2.Use Case Diagram: Inventory Management Sub-System**

Employee

**Inventory Management Sub-system**

**3. System Structure**

Inventory Sub-System

Stock Management

Shelf Management

**4. Static structure and Data Analysis**

**4.1 Model-View-Controller (MVC) Model**

PutProductToShelfUI

ShelfManagementUI

EditProductOnShelfUI

ViewProductOnShelfUI

PutProductToShelfToModel

EditProductOnShelfToModel

ViewProductOnShelfToModel

Shelf

ShelfReportScreen

RetrieveShelfFromModel

1. Manage Product on Shelf

ProductManagementUI

CheckNumberOfProductUI

ProductReportScreen

RetrieveProductFromModel

Product

1. Check Number Of Product

CheckNumberOProductfToModel

AddStockUI

StockManagementUI

EditStockUI

AddStockToModel

EditStockToModel

Stock

StockReportScreen

RetrieveStockFromModel

1. Add Stock Of Product
2. Edit Stock Of Product

**4.2 Entity Class Diagram: Inventory Management**

Product

ProductID

ProductName

Unit

Type

Status

CostsAvg

Price

NumTotal

Dealer

SupplierName

DateExp

Dealer

CheckNumberOfProduct

Shelf

ShelfID

ShelfName

Type

PutProductToShelf

EditProductToShelf

ViewProductOnShelf

StockInventory

StockId

StockDate

0..\*

0..1

1

0..\*

AddLotProductofStock

EditLotProductofStock

**5. System Behavior Model**

**5.1 Sequence diagram demonstrating operation “Put product to Shelf”**

Employee

PutProductToShelfUI

PutProductToShelfToModel

Shelf

1: Put information of product to shelf

2: Set the inserted product information

3: insert product information

4: Status of insert operation

5: display status of insert

operation

6: display status of insert

operation

**5.2 Sequence diagram demonstrating operation “Edit Product on shelf”**

Employee

EditProductOnShelfUI

EditProductToShelfOnModel

Shelf

1: Edit information of product on shelf

2: Set the updated product information on shelf

3: update product information on shelf

4: Status of update operation

5: display status of update operation

6: display status of update operation

**5.3 Sequence diagram demonstrating operation “View Product on Shelf”**

Employee

ViewProductOnShelfUI

ViewProductOnShelfToModel

Shelf

1: View information of product on shelf

2: Set the selected shelf information

3: select shelf information

4: Status of select operation

5: display status of select operation

6: display status of select operation

**5.4 Sequence diagram demonstrating operation “Check Number of Product”**

Employee

CheckNumberOfProductUI

CheckNumberOfProductToModel

Product

1: check number of product

2: Set the selected product information

3: select product information

4: Status of select operation

5: display status of select operation

6: display status of select operation

**5.5 Sequence diagram demonstrating operation “Add Stock of Product”**

Employee

AddStockOfProdutUI

AddStockOfProductToModel

Stock

1: Add a new stock of product information

2: Set the inserted stock information

3: insert stock information

4: Status of insert operation

5: display status of insert

operation

6: display status of insert

operation

**5.6 Sequence diagram demonstrating operation “Edit Stock of Product”**

Employee

EditStockOfProductUI

EditStockOfProductToModel

Stock

1: Edit information of stock

2: Set the updated stock information

3: update stock information

4: Status of update operation

5: display status of update operation

6: display status of update operation