



# GARMENT INVENTORY MANAGEMENT SYSTEM

[Document subtitle]

# GARMENT INVENTORY MANAGEMENT SYSTEM



National Institute of Business Management  
Colombo - 07

Diploma in Software Engineering

CODSE181F-001

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Title of the project - Garment inventory management system

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“The project is submitted in partial fulfillment of the requirement of the Diploma of Computer System Design of National Institute of Business Management.”

## **Declaration**

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## **Abstract**

We developed a software exclusively to manage the inventory of SG garments. As they were manually managing the inventory since the day of start ,they had to face human errors and other relatable problems. Therefore, this software is created to help them to finesse the management of the inventory. The company can rely on this software to keep their data safe and maintain accurate data of items available in the inventory.

Three types of user mode are made available to the company. they are

- 1) Manager
- 2) Stock admin
- 3) Salesclerk.

Each mode will allow the user to access the forms regarding to their posts. Some features have been restricted to some users according to their posts.

This is a windows application, because our clients are more familiar with windows OS. Only the manager can access some features of the application for certain security reasons. This application has some unique features to help the manager. Manager will receive an alert to deliver an order 5 days before the delivery date and this software can generate reports which will help the manager to take future decisions based on the data from the past. We have used cloud database to store the data. We used cloud database to store the data.

The software application is user convenient and user friendly. This application also has the capability of reducing the excess production, which in turn saves the money and time, increases the profitability and improve customer service. It will decrease large amount of data duplication.

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## Introduction

### Company Overview

SG Fashion is a young enterprise that manufactures good quality ready-made garments which is located in No. 53, Panawala rd., Eheliyagoda. They import materials from china. Ready-made garments are distributed to popular fashion stores like cool planet, fashion bug after showing samples to clients based on their requirements. Tailor, fabric cutter, packing helper, ironer, machine operator, and quality assurances are working in the company. They divide their garment products into four categories based on age, relevant size, and the type of the dress. They are ZARA Basic, Women's Sty, S & G Fashion, S & G Secret.

### Table of categorizes and sizes

<u>ZARA Basic</u>	<u>Women's Sty</u>	<u>S &amp; G Fashion</u>	<u>S &amp; G Secret</u>
<u>S - 34</u>	<u>M - 38</u>	<u>M - 38</u>	<u>M - 34</u>
<u>M - 36</u>	<u>L - 40</u>	<u>L - 40</u>	<u>L - 36</u>
<u>L - 38</u>	<u>KL - 42</u>	<u>XL - 42</u>	<u>XL - 38</u>
<u>Xl - 40</u>	<u>2Xl - 44</u>	<u>2Xl - 44</u>	<u>2Xl - 40</u>
<u>2Xl - 42</u>	<u>3Xl - 46</u>	<u>3Xl - 46</u>	
<u>3XL - 44 1/2</u>	<u>4XL - 48</u>		

### Inventory Management

Inventory management is a challenging problem area in supply chain management. Companies need to have inventories in warehouses in order to fulfil customer demand, meanwhile these inventories have holding costs, and this is frozen fund that can be lost. Therefore, the task of inventory management is to find the quantity of inventories that will fulfill the demand, avoiding overstocks.

### Weakness of The Existing System

From the time the company was started inventory management is done manually written in book. A manual inventory requires employees and managers to write down each time an item is removed from the inventory or added into the inventory. If one employee forgets to mention that the last garment product or material has been removed from the inventory, a manager expects the item to still be available for a customer during a sale or when getting orders from customer. A manual inventory system does not update at the end of the day with updated inventory counts. This means you must go through the inventory items each time you need to place an order for new raw materials, products or supplies for the inventory. This can be a time-consuming process, as you will physically have to go through each product box and browse through the items. The company had to face a load of errors like human errors, fraudulent, data duplication, inaccurate need count are such common problems which arise due to the maintenance of inventory manually.

### Project Scope

To overcome these minor and major issues regarding the manual inventory management we created a comprehensive software application to manage the inventory system. This application does not only reduce the human errors, but it is also very efficient for growth of the company.

We made this application to maintain the accurate available materials/ garments, and order details so the regarding employees will know what is available at all times and what are the orders have to be delivered. This means you can check your inventory and order your supplies from your office desk with this application. Manager will receive messages when the delivery date is approaching so it will help the manager to make correct decisions like deciding which order he has to provide top priority at that time. This software can generate reports according to the given time period and ability to view the reports is restricted and limited only to the manager and update sold goods details and generate receipts and bills.



## Technologies we used to create this software

- C# Programming language



C# is a popular programming language which is used to develop software. The Object-Oriented feature can be found in this programming language which is helpful to build advanced software. It's developed by Microsoft and it's one of the programming languages designed for the common language infrastructure.

- Visual Studio



Visual Studio is a software development tool provided by Microsoft. It gives good built-in additional features to use Azure cloud service.

- Azure



Azure is a cloud computing platform provided by Microsoft. It can be used to create cloud databases. The business can scale up or scale down because it's about fashion trend and we all know trend changes rapidly. So, the storage needs quickly to suit your situation. We used cloud storage database. There are so many cloud computing services in the market, we chose Azure because it's reliable and affordable.

- GitHub

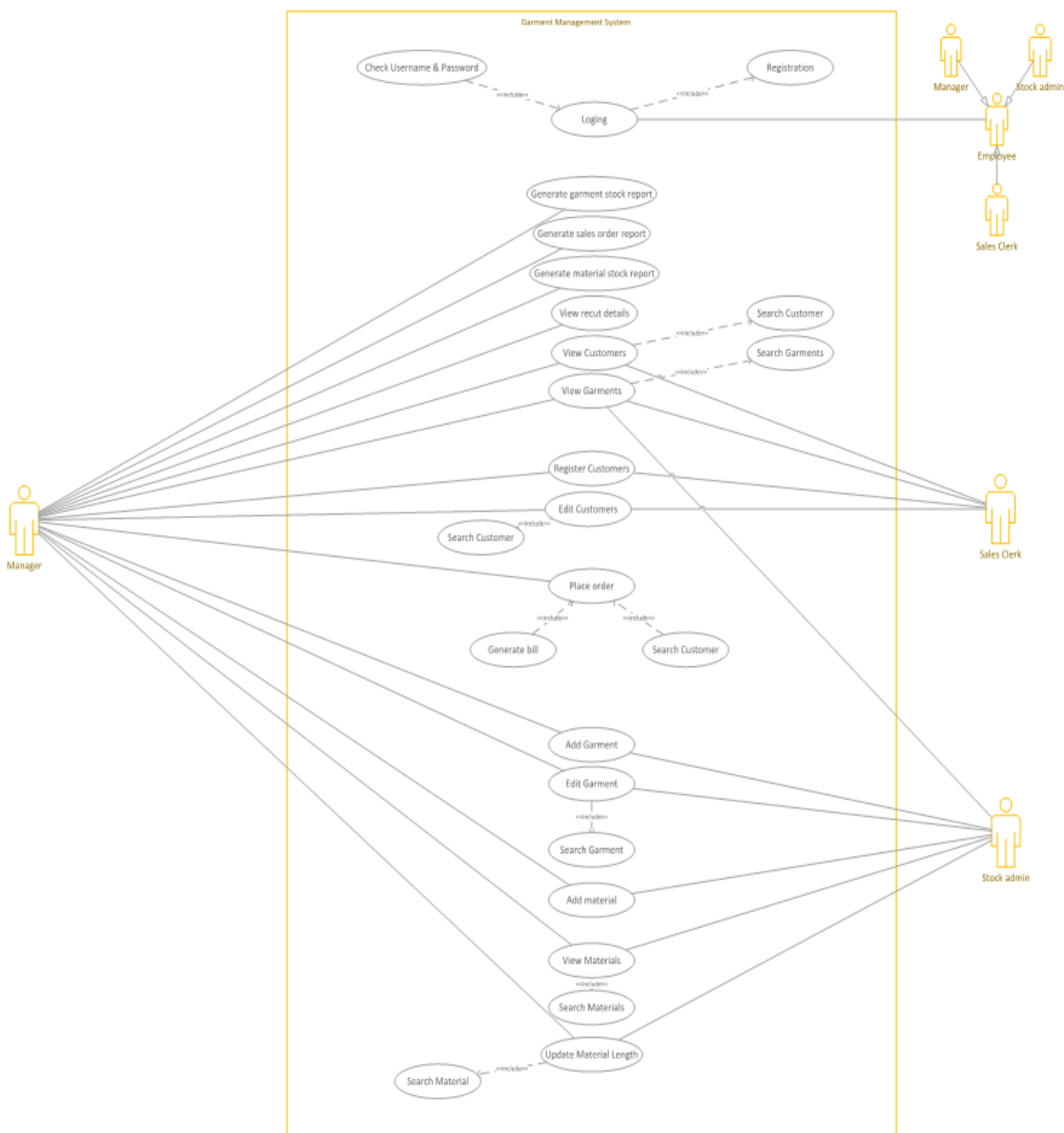


We used GitHub Git repository hosting service. A group of members can work together virtually over internet, same project.

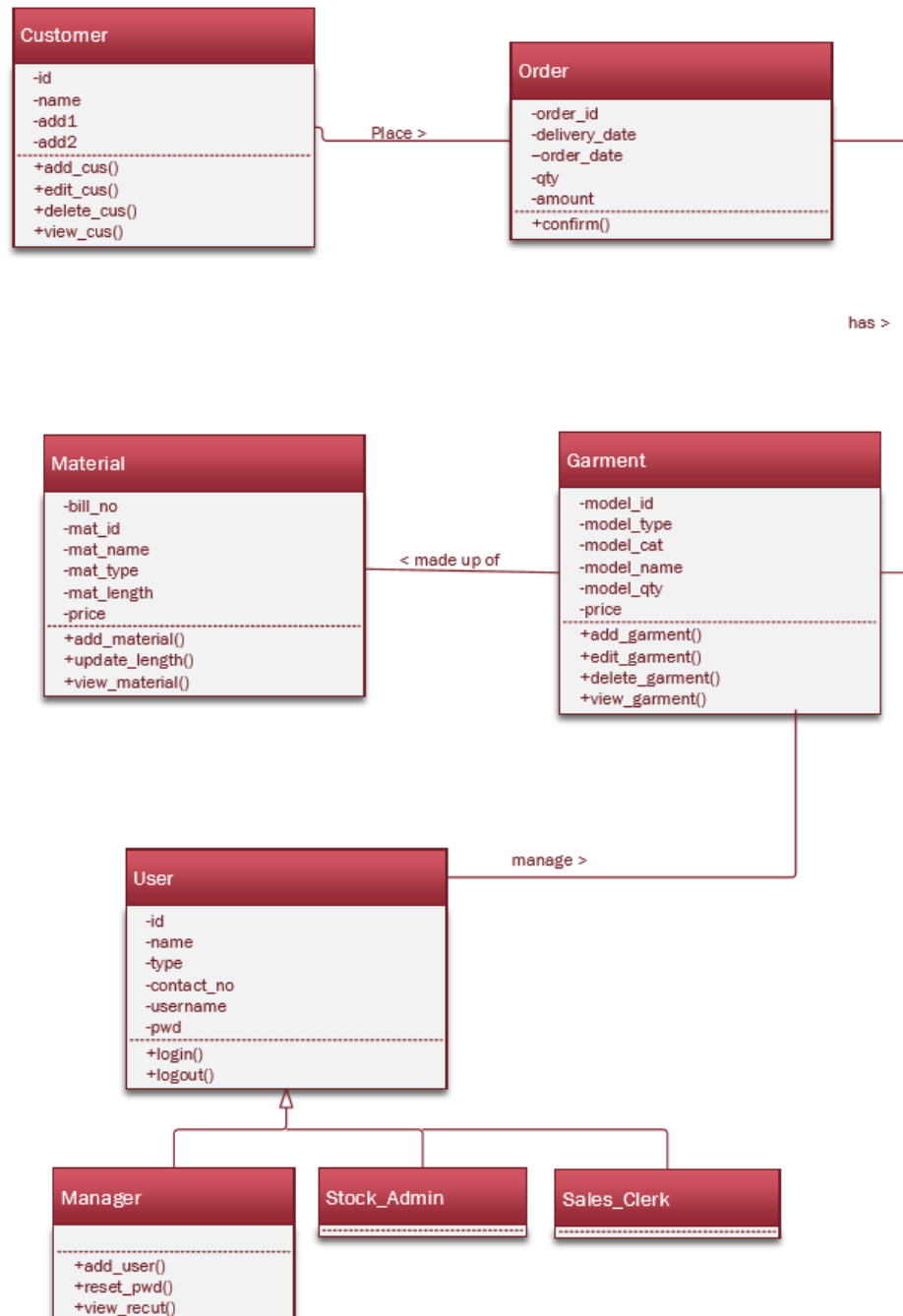
## Analysis

Our research team with hard work, efficiently collected data from the old account books, hand written reports, employees and managers.

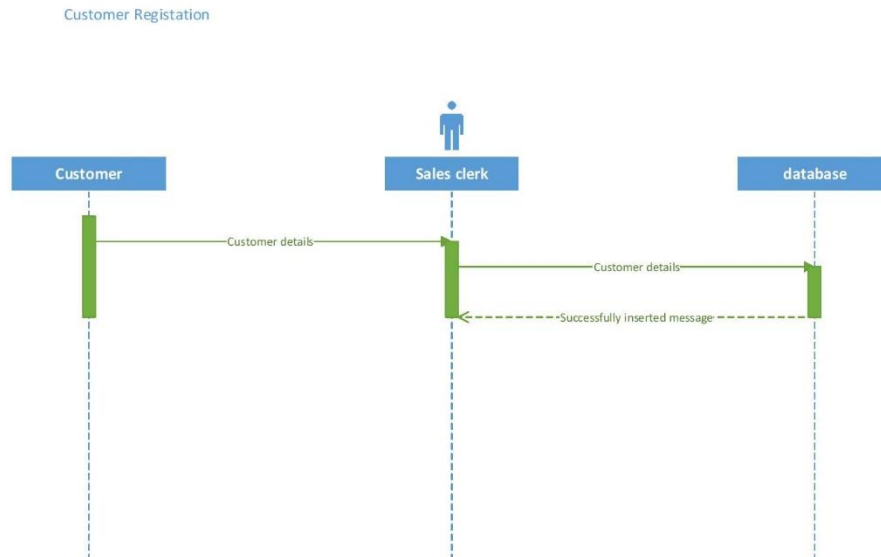
## Use Case Diagram



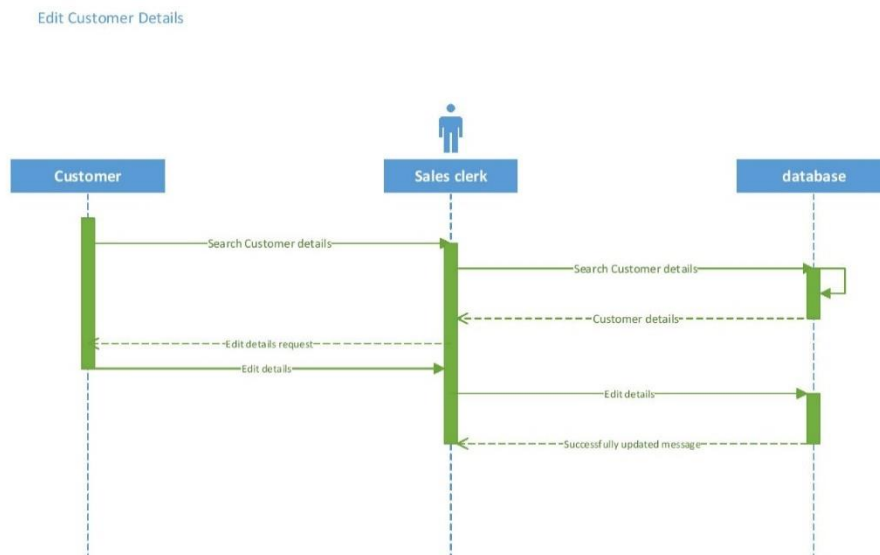
## Class Diagram



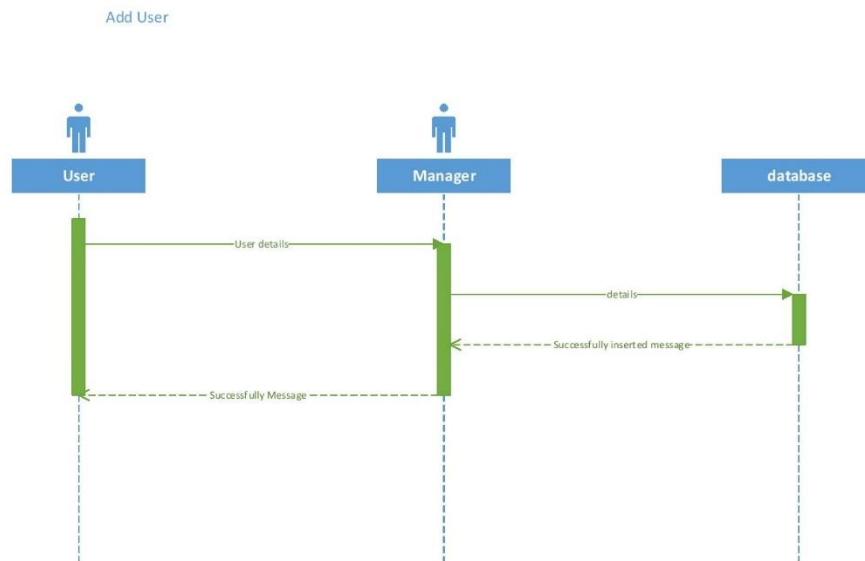
## Sequential Diagram



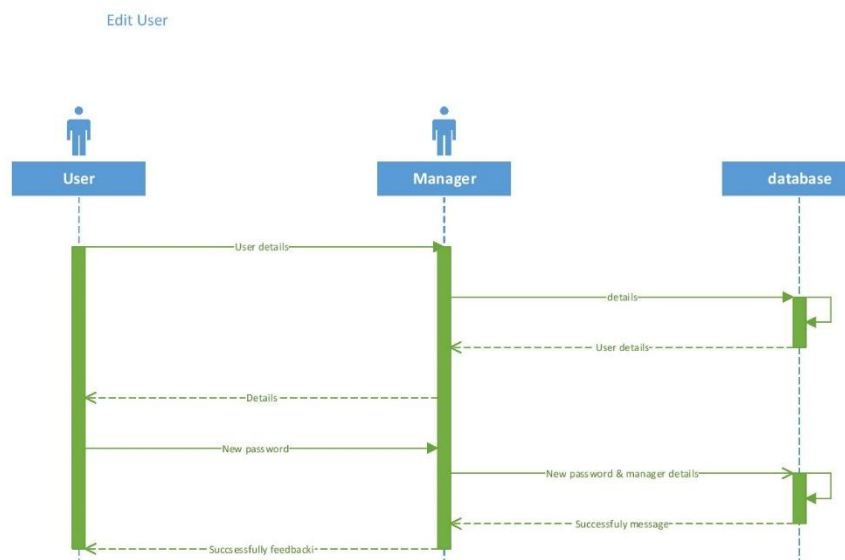
- Customer gives their details to registration.
- Sales Clerk get them and input to the Customer Registration form and it will save to the database and response with a success message.



- Sales Clerk enter customer id to the form to search and database will send the details corresponding to the given id.
- After that Sales Clerk input updated data and it will save to the database.
- After saving, database will response with a success message.

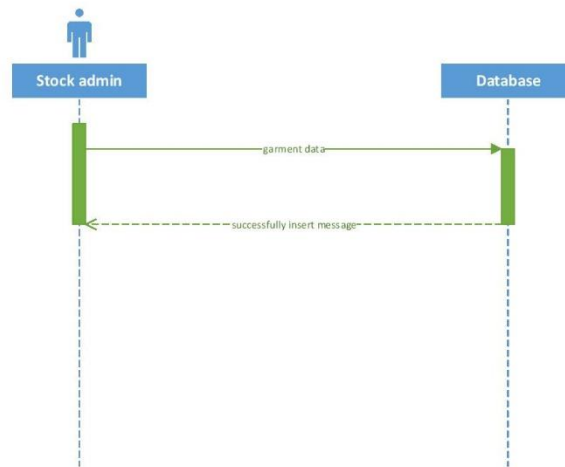


- When adding user, user will submit a detail application to the Manager and he will enter it to the Add User form.
- The form will the data to the database and response with a success message.



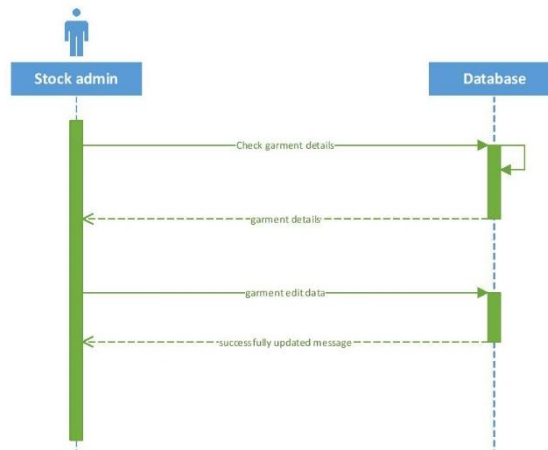
- When a user wants to reset his password, user gives his id to the manager to check the details.
- Manager checks the details are correct and ask new password and input it to form and it will response with a success message.

#### Add garment

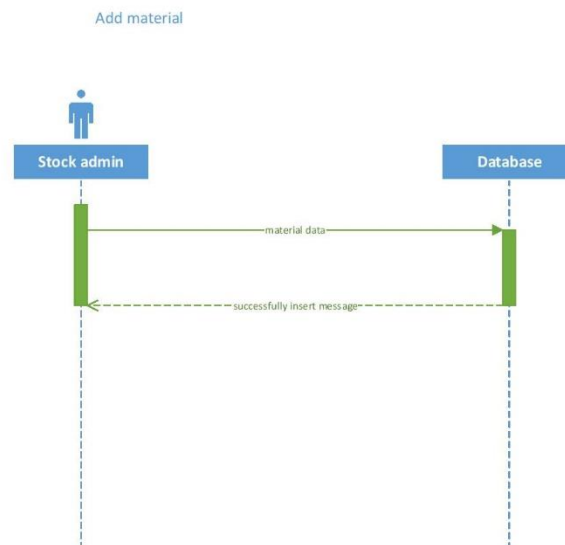


- When add garment, stock admin input details to the form and it will save to the database.
- If the details are saved database will response with a success message.

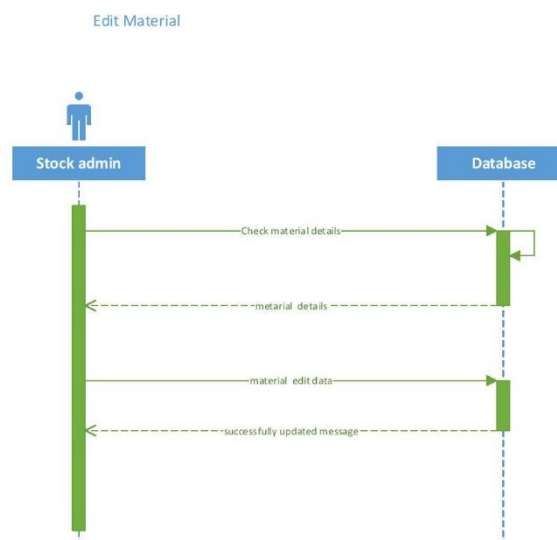
#### Edit Garment



- Stock admin enter garment id to the form to search and database will send the details corresponding to the given id.
- After that stock admin input updated data and it will save to the database.
- After saving, database will response with a success message.

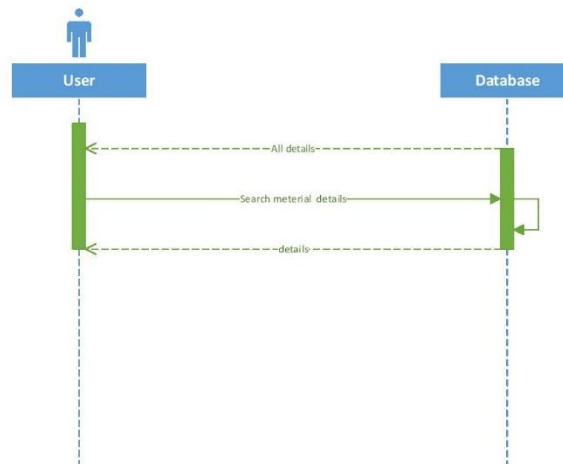


- When add materials, Stock Admin input details to the form and it will save to the database.
- If the details are saved database will response with a success message.



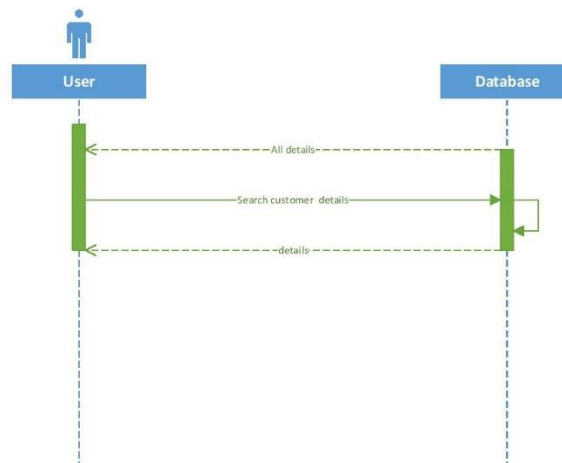
- Stock admin enter material id to the form to search and database will send the details corresponding to the given id.
- After that stock admin input using material length and it will save to the database.
- After saving, database will response with a success message.

#### View material



- When open the view material form, it will show the all materials details from the database.
- When the user enters a search keyword and search database will send the details corresponding to the given key word.

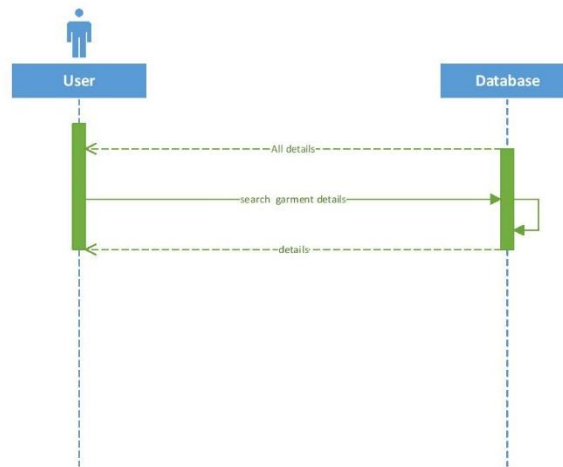
#### View Customer



- When open the view material form, it will show the all materials details from the database.
- When the user enters a search keyword and search database will send the details corresponding to the given key word.

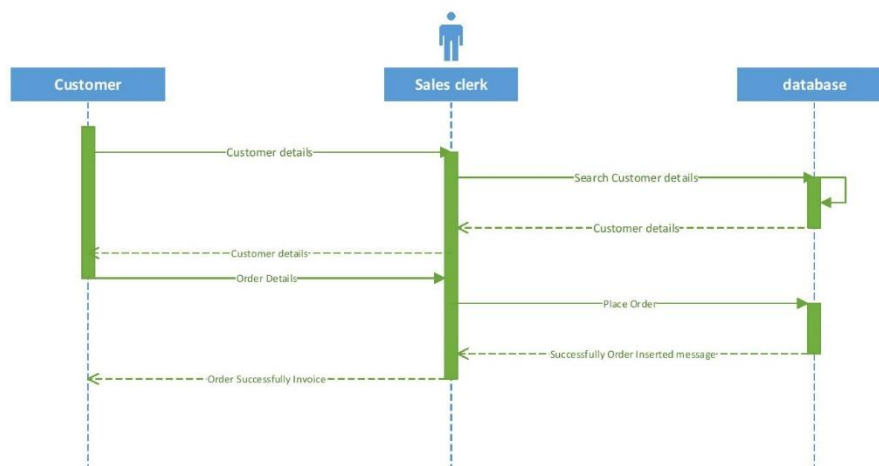


#### View Garment



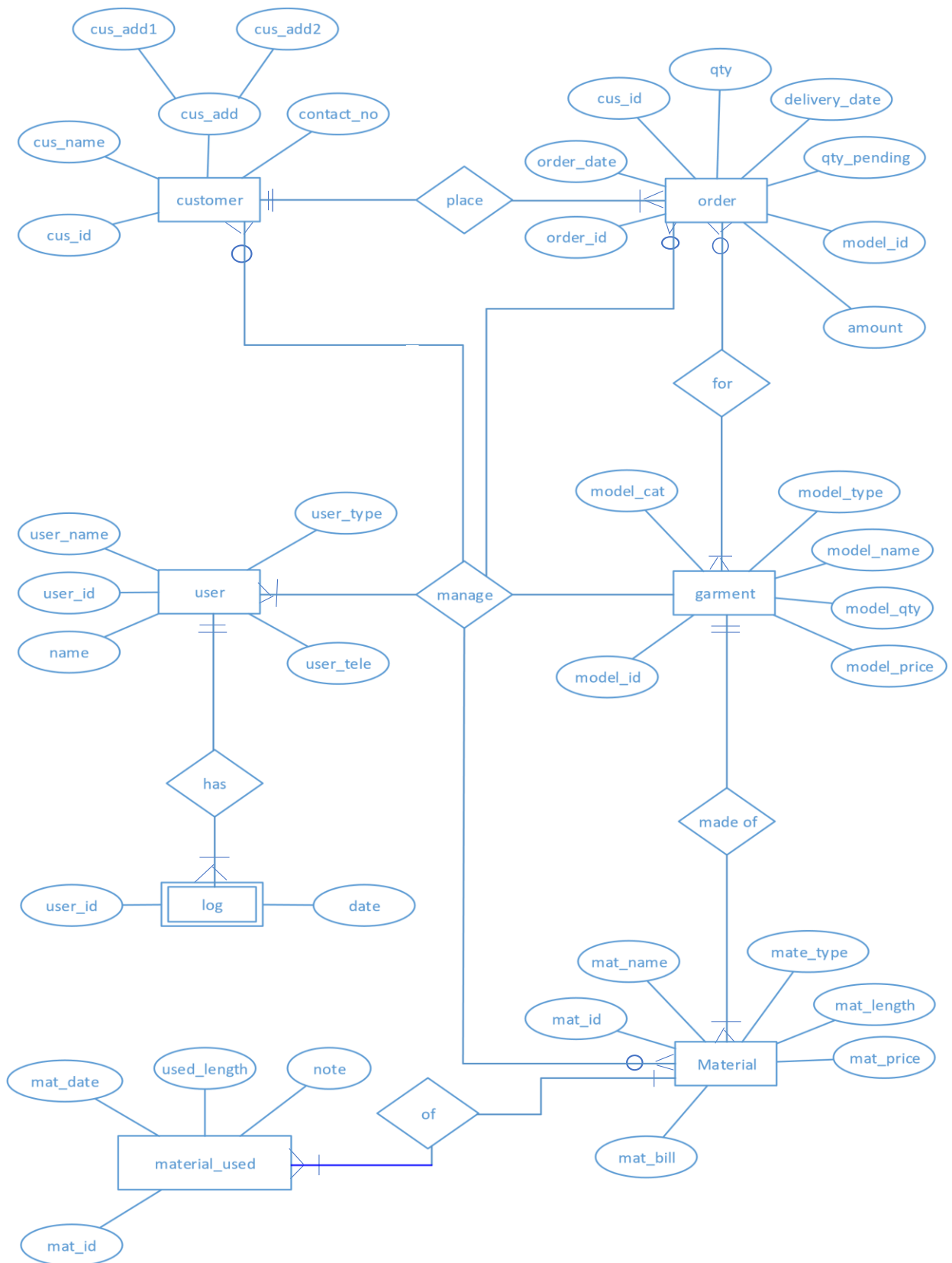
- When open the view material form, it will show the all materials details from the database.
- When the user enters a search keyword and search database will send the details corresponding to the given key word.

#### Place Order



- When place an order customer will gives their data to the Sales Clerk and he will confirm it by database response by searching.
- After confirming, customer will give garment details which he wants to order.
- Sales Clerk will input order details to the form and confirm order by saving them to the database
- Database will response with generate the bill.

## ER Diagram



## Design

### Table Normalization

Order Table need to be normalized.

#### Unnormalized Relation

order_id	order_date	cus_id	delivery_date	model_id	qty	amount	qty_pending
O0001	12/12/2018	C0001	2/2/2019	B0001	100	10000	0
				B0002	250	30000	10
O0002	1/1/2019	C0002	1/3/2019	T0002	100	15000	20
				T0003	150	40000	0
				T0004	200	50000	0

#### 1st Normal Form:

order_id	order_date	cus_id	delivery_date	model_id	qty	amount	qty_pending
O0001	12/12/2018	C0001	2/2/2019	B0001	100	10000	0
O0001	12/12/2018	C0001	2/2/2019	B0002	250	30000	10
O0002	1/1/2019	C0002	1/3/2019	T0002	100	15000	20
O0002	1/1/2019	C0002	1/3/2019	T0003	150	40000	0
O0002	1/1/2019	C0002	1/3/2019	T0004	200	50000	0

**2<sup>nd</sup> Normal Form:**

**order (Order Master  
Table)**

<u>order_id</u>	order_date	cus_id	delivery_date
O0001	12/12/2018	C0001	2/2/2019
O0002	1/1/2019	C0002	1/3/2019

**order\_detail (Order Detail Table)**

<u>order_id</u>	<u>model_id</u>	qty	amount	qty_pending
O0001	B0001	100	10000	0
O0001	B0002	250	30000	10
O0002	T0002	100	15000	20
O0002	T0003	150	40000	0
O0002	T0004	200	50000	0

## Database Design

**Table No:** 1  
**Table Name:** customer  
**Primary Key/s:** cus\_id  
**Foreign Key/s:**

Field Name	Data Type	Field Size	Description
cus_id	Text	6	Customer ID
cus_name	Text	30	Customer Name or ShowRoom Name
cus_add1	Text	30	Customer Address line 1
cus_add2	Text	30	Customer Address line 2
contact_no	Numeric	12	Contact Number
Record Size		108	

**Table No:** 2  
**Table Name:** Order (Order Master)  
**Primary Key/s:** order\_id  
**Foreign Key/s:** cus\_id

Field Name	Data Type	Field Size	Description
order_id	Text	6	Order ID Number
order_date	Date	10	Ordered Date
cus_id	Text	6	Customer ID
delivery_date	Date	10	Delivery Date
Record Size		32	

**Table No:** 3  
**Table Name:** order\_detail  
**Primary Key/s:** order\_id, model\_id  
**Foreign Key/s:** model\_id

Field Name	Data Type	Field Size	Description
order_id	Text	6	Order ID Number
model_id	Text	6	Garment model ID number
qty	Numeric	5	Quantity of model Ordered
amount	Numeric	7	Total amount of the model
qty_pending	Numeric	5	Pending quantity of the model
Record Size		29	

**Table No:** 4  
**Table Name:** garment  
**Primary Key/s:** model\_id  
**Foreign Key/s:**

Field Name	Data Type	Field Size	Description
model_id	Text	6	ID of garment mdel
model_type	Text	20	Type of Model
model_cat	Text	20	Model Category
model_name	Text	30	Model Name
model_qty	Numeric	5	Model quantity in hand
model_price	Numeric	7	Model price per unit
Record Size		88	

**Table No:** 5  
**Table Name:** material  
**Primary Key/s:** mat\_bill, mat\_id  
**Foreign Key/s:** mat\_id

Field Name	Data Type	Field Size	Description
mat_bill	Text	15	Bill number of the material
mat_id	Text	6	Material ID
mat_name	Text	20	Material name
mat_type	Text	20	Material Type
mat_length	Numeric	6	Material Length
mat_price	Numeric	7	Material price per unit
Record Size		74	

**Table No:** 6  
**Table Name:** material\_used  
**Primary Key/s:** mat\_id, mat\_date  
**Foreign Key/s:** mat\_id

Field Name	Data Type	Field Size	Description
mat_id	Text	6	Used material ID
mat_date	DateTime	22	Material used Date and Time
note	Text	100	Message for using
used_length	Numeric	6	Used material length
Record Size		134	

**Table No:** 7  
**Table Name:** user  
**Primary Key/s:** user\_id  
**Foreign Key/s:**

Field Name	Data Type	Field Size	Description
user_id	Text	6	User ID
user_name	Text	25	UserName for login
user_type	Text	20	User Type
user_tele	Numeric	12	User Contact number
user_pwd	Text	15	Password for login
name	Text	30	Name of the user
Record Size		108	

**Table No:** 8  
**Table Name:** log  
**Primary Key/s:**  
**Foreign Key/s:** user\_id

Field Name	Data Type	Field Size	Description
user_id	Text	6	Logged In user ID
date	DateTime	22	Logged In Date and Time
Record Size		28	

## Table View

Customer Table

nibmgarments.Garm...ts - dbo.customer ➤ ✕					
	cus_id	cus_name	cus_add1	cus_add2	contact_no
▶	C0003	cool planet	wattegedara	colombo 9	0712895678
	C0004	anushka04	aheliyagoda	rathnapura	0779926470
	C0005	Nizam	Dewata	Galle	1234567891
	C0006	eshan	asdfff	addd	0773286165
	C0007	qwwer	asdf	aaaa	1234567890
	C0008	gihan	colombo	homagama	0778888999
	C0009	shehan fashion	514, maharaga...	homagama	0123456789
	C0010	Look Good	panahama	elahara	1234567890

Garment Table

nibmgarments.Garments - dbo.garment ➤ ✕ nibmgarments.Garm...ts - dbo.customer						
	model_id	model_type	model_cat	model_name	model_qty	model_price
▶	B0001	Blouse	Womens Sty.	virtualia	90	750
	B0002	Blouse	S n G Fashion	as12	-100	100.5
	B0003	Blouse	Womens Sty.	sweezy	600	220.5
	B0004	Blouse	S n G Fashion	swaf22	197	220
	S0001	Skirt	ZARA Basic	squeez	260	1500
	S0002	Skirt	Womens Sty.	fayazy	-25	2
	S0003	Skirt	S n G Fashion	skooortya	240	600
	S0004	Skirt	S n G Fashion	digango	100	120.5
	S0005	Skirt	Womens Sty.	swaz23	100	250.25
	S0006	Skirt	ZARA Basic	qwee32	300	150.5



## Material Table

nibmgarments.Garments - dbo.materials						
	mat_bill	mat_id	mat_name	mat_type	mat_length	mat_price
▶	A001	M0019	Adidas	Silk	10000	100
	A001	M0020	adidas	Cotton	100	1000
	B001	M0001	Lotus	Silk	50	500
	B0012	M0004	yakahoo	Cotton	250	120
	B002	M0002	Marid	Cotton	-900	700
	B0023	M0006	lala	Cotton	100	25
	B0023	M0007	ola	Silk	100	40
	B0025	M0010	Awen	Nylon	2349.5	600
	B0025	M0011	Veen	Cotton	130	50
	B003	M0003	Adrid	Nylon	50	400
	B004	M0005	yoloha	Silk	25	150
	B005	M0006	fzlll	Nylon	200	120
	B005	M0007	shirroo	Silk	100	125
	b1213	M0014	hbfsd	Silk	120	125

## Material Used Table

nibmgarments.Gar...dbo.material_used				
	mat_id	mat_date	note	used_length
▶	M0001	2019-04-12 00:0...	test	50
	M0002	2019-06-12 22:4...	hiii	1000
	M0005	2019-04-12 00:0...	test	100
	M0007	2019-06-11 17:2...	successfully fail...	50

## User Table

nibmgarments.Garments - dbo.user						
	user_id	user_name	user_type	user_tele	user_pwd	name
▶	1	manager	Manager	0777862675	pass@123	manager
	2	admin	Stock Admin	0777862675	pass@123	Sameera
	3	clerk	Sales Clerk	0112804467	pass@123	fazil

## Log Table

nibmgarments.Garments - dbo.log		
	user_id	date
▶	1	2019-04-14 21:4...
	1	2019-04-14 21:4...
	1	2019-04-14 21:4...
	2	2019-04-14 23:2...
	2	2019-04-14 23:3...
	1	2019-04-21 07:3...
	1	2019-05-30 19:4...
	1	2019-05-30 19:4...
	1	2019-05-31 08:4...
	1	2019-05-31 08:4...
	1	2019-06-10 22:3...
	1	2019-04-17 22:5...

## Order Table

nibmgarments.Garments - dbo.order				
	order_id	order_date	cus_id	deliver_date
▶	O0001	2018-04-25	C0001	2018-05-25
	O0002	2019-04-04	0099	2019-09-04
	O0003	2019-02-04	0099	2019-02-04
	O0004	2019-03-25	0099	2019-04-04
	O0005	2019-01-01	0099	2019-01-01

## Order Detail Table

nibmgarments.Garm...- dbo.order_detail					
	order_id	model_id	qty	amount	qty_pending
▶	O0001	T0001	25	2500	0
	O0001	T0002	50	5000	0
	O0002	B0001	1	750	0
	O0002	B0003	3	7500	0
	O0002	T0001	3	5250	0
	O0006	B0001	500	375000	0
	O0006	B0002	150	300000	0

## Interface Design

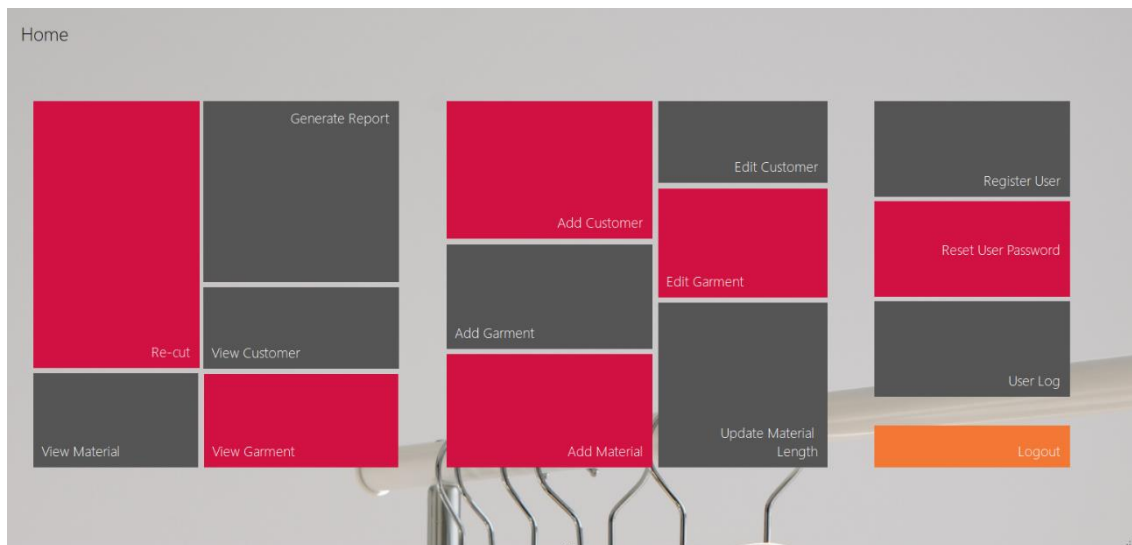
We designed the interface simple and comprehensive. All the forms are well validated. We made sure that the user inputs the correct type of data. Wrong type of data can't be added into the database. If user mistakenly typed wrong type of data application will show the error message and in which input field user has entered the wrong data.

### Login page



- In the login page user can login
- If user forgot the password, click the forgot password and user has to login as a manager because only manager can reset the password

## Manager home



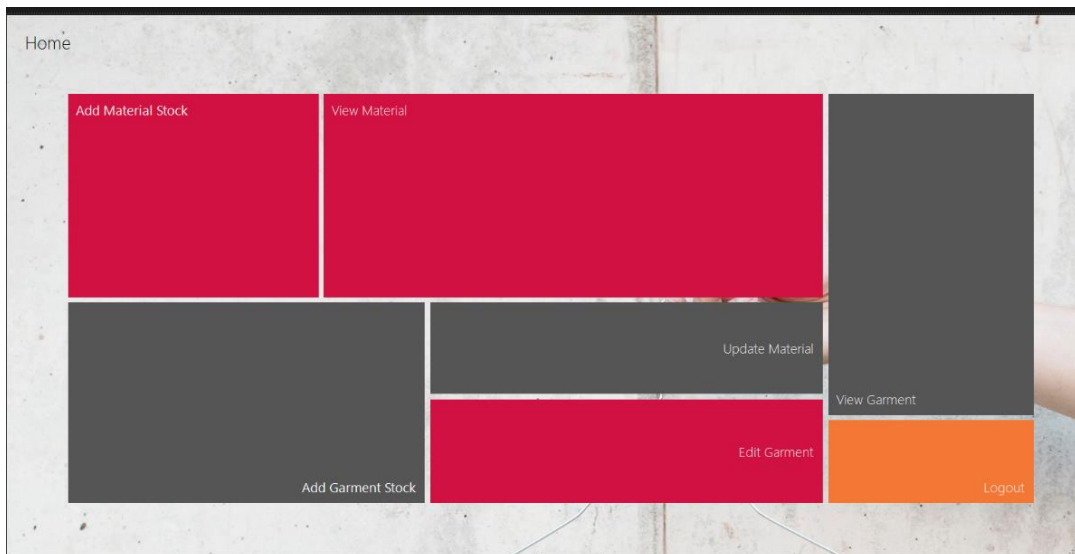
- Manager can access every form in this application which can be accessed by salesclerk and stock admin.
- Manager only can generate and view reports, reset password of a user and see the user log.

## Salesclerk home



- Salesclerk can register or edit a customer and check the details of already registered customer.
- He can place an order, in order to place an order, he should the details of available garments in the inventory. To know that this program allows him access the view garment form.

## Stock admin home



- Stock admin maintains the stocks like readymade garments and materials in the inventory.
- Whenever an employee taking out materials, stock admin will update the material in update material form so they can keep track of available materials .

## Add customer

### Customer

Customer ID	<input type="text"/>
Name	<input type="text"/>
Address 1	<input type="text"/>
Address 2	<input type="text"/>
Contact No.	<input type="text"/>

Add

Clear

- Manager and salesclerk can access this form.
- Customer ID is auto generated
- This form is used to create a new customer profile.
- All the text fields are validated.

## . Edit customer

editCustomer

Customer ID

Customer ID

Name

Address 1

Address 2

Telephone

- Enter the already added customer id in the customer id text field
- Following grid will show the customer profile details, edit the needed information and click update.
- Delete button will delete the customer profile

## View or search customer

View Customers

- Grid shows the all addedcustomer details by default
- Enter the keyword in the search text field to get the details of specific customer
- Entering \* in the serach text field will display the all customer details again.

## Add garment

Garment

Model ID	<input type="text"/>
Type	<input type="text"/>
Category	<input type="text"/>
Name	<input type="text"/>
Quantity	<input type="text"/>
Price	<input type="text"/>

Add

Reset

- Stock admin and Manager can access this form.
- Model ID is auto generated
- The company divide products into four categories, that are ZARA Basic, Women Sty, S n G Fashion and S n G Secret.

## Edit garment

Edit Garment

Model ID

Search

Model ID	<input type="text"/>
Type	<input type="text"/>
Category	<input type="text"/>
Name	<input type="text"/>
Quantity	<input type="text"/>
Price	<input type="text"/>

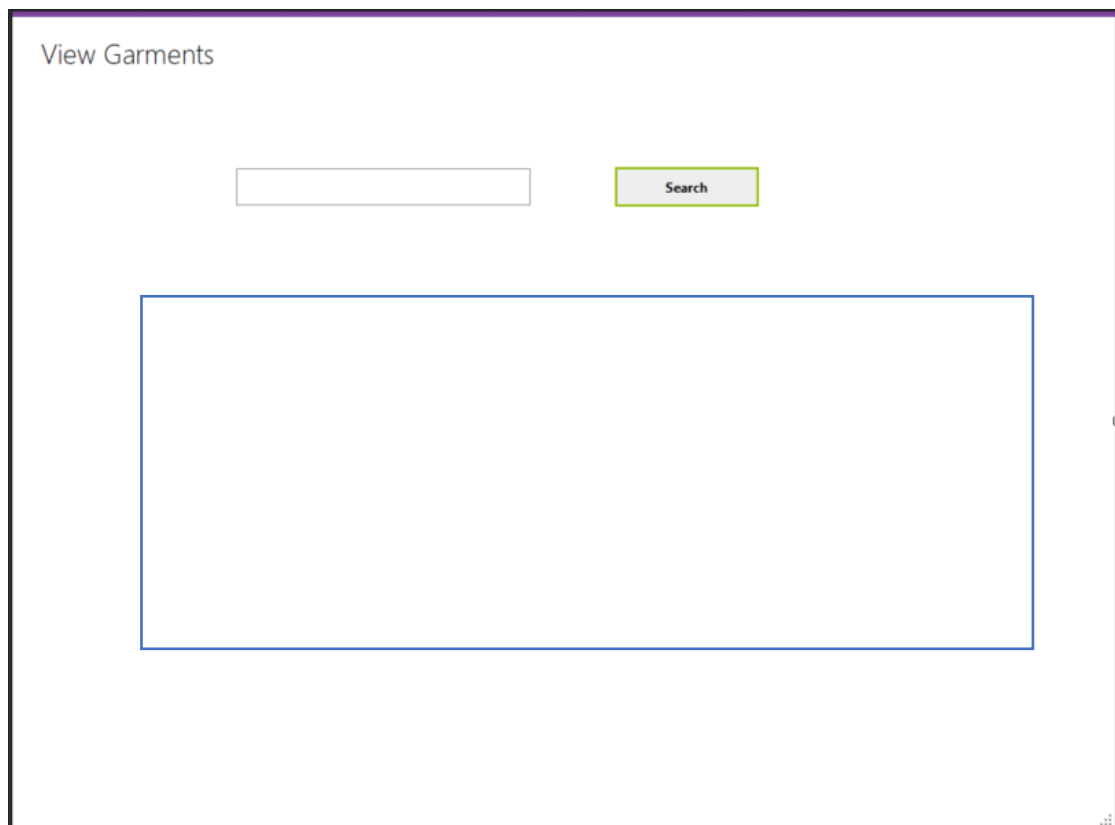
Update

Delete

Reset

- Enter the already added garment's model id in the model id text field
- Following grid will show the customer profile details, edit the needed information and click update.
- Delete button will delete the garment profile

## View or search garment



The screenshot shows a web interface titled "View Garments". At the top left of the content area is the text "View Garments". Below this, there is a search bar consisting of a text input field and a "Search" button. The text input field is empty. Below the search bar is a large, empty rectangular area outlined in blue, which represents the grid for displaying garment details. The entire interface is enclosed in a thin black border.

- Grid shows the all added garment details by default
- Enter the keyword in the search text field to get the details of specific garment
- Entering \* in the search text field will display the all garment details again.



## Add material

Materials

Bill No.

Materia ID

Name

Type

Length

Price per Unit

Bill No

Material ID

Name

Type

Length

Price

Add

Reset

Remove

Clear

Confirm

- Bill no. is has to be enete by user which given by their suppliers.
- One bill may include many materials, reagarding that clicking add button after filling the details won't clear the bill no. text field.
- If user want to change the bill no. he has to clear that manually or has to click the reset button will clear the bill no.
- Added materials will appear in the grid.
- If user wants to remove the material which is added in the grid, click the related row and click remove button.
- Clear button will clear the grid.
- Confirm button will send the data to the datdabase.

## Search material

Material Search

Search

- Grid shows the all added materials details by default
- Enter the keyword in the search text field to get the details of material garment
- Entering \* in the serach text field will display the all material details again.

## Update material length

Update Material Length

Material ID

Available Length

Used Length

Note

- When an employee takeout material from inventory to use, stock admin has to enter the details, so the database will be updated and keeps the accurate amount of the available material.
- Enter a keyword to get the material details in the grid.
- Select a material from the grid to update the material length.
- User must enter for what that material is used for in the Note text field.

## Place an order

### Select Customer

Customer ID

Search

Customer ID

Name

Address 1

Address 2

Telephone

Clear

Next

### Order

Order ID

asd

Customer Name

ab

Date

123

Delivery Date

Tuesday, June 11, 2019

Model ID/Name

Search

Quantity

ADD

Model ID	Name	Quantity	Total Price

Grand Total

Remove

Back

Place Order

Clear

- To place an order user first has enter the customer id.
- Entering the customer id will display the customer details. If that details are correct click next. Next button will get you to the next form.
- Order id, date is auto generated.
- After entering the Quantity click the add button.
- Add button will show the bill details in the grid.
- If user want to remove a order, select the order from grid and click remove button.
- Click place order to get the bill.

## Add new user

---

### New User

User ID	<input type="text"/>
Name	<input type="text"/>
Type	<input type="text"/>
Contact No.	<input type="text"/>
User Name	<input type="text"/>
Password	<input type="password"/>
Confirm Password	<input type="password"/>

**Manager Information**

Manager User Name	<input type="text"/>
Manager Password	<input type="password"/>

- In this form manager can create account for newly appointed stock admin or sales manager.
- Only manager can access this form.
- Manager must enter his user name and password in the manager information grid.

## Reset password

Reset Password

User Name/ ID

Search

User ID

User Name

Name

Type

Contact No.

Password

Confirm Password

Manager Information

Manager User Name

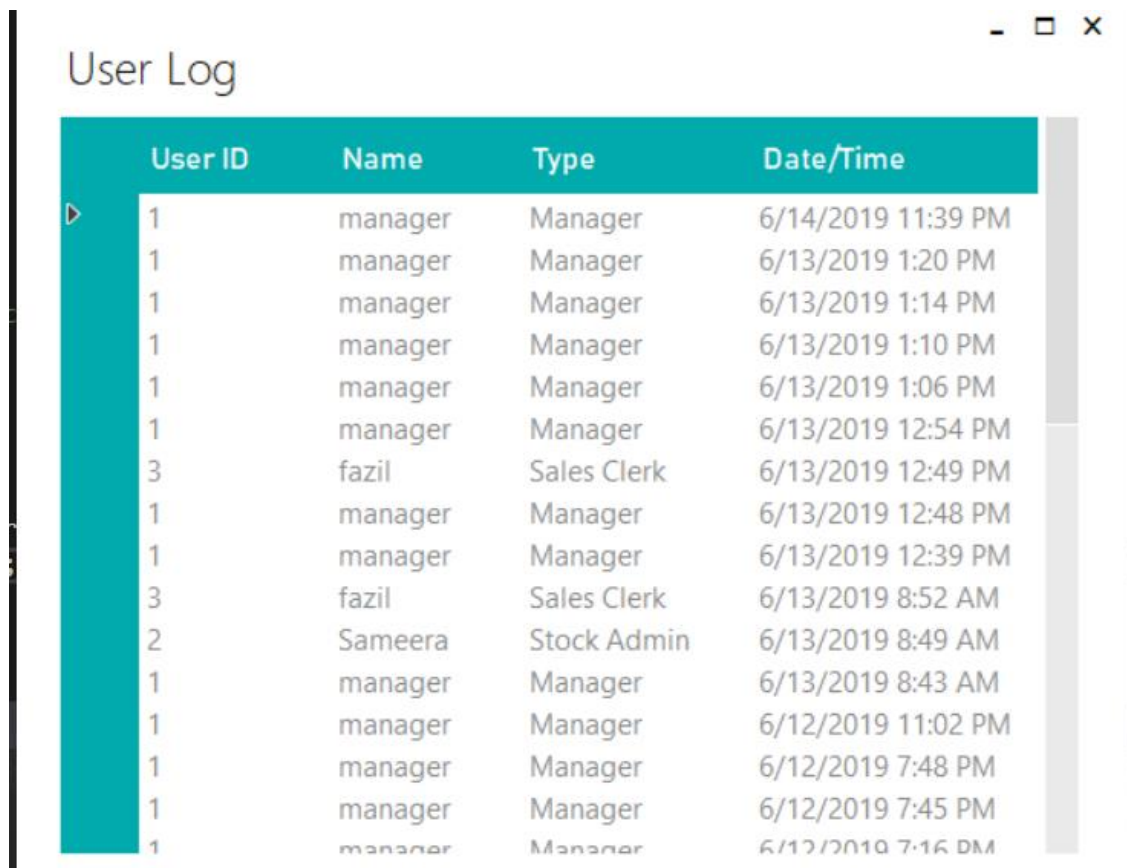
Manager Password

Reset

Clear

- Only manager can access this form.
- In this form manager can reset the password of the stock admin or sales manager.
- Manager must enter his user name and password in the manager information grid.

## User log form



User ID	Name	Type	Date/Time
1	manager	Manager	6/14/2019 11:39 PM
1	manager	Manager	6/13/2019 1:20 PM
1	manager	Manager	6/13/2019 1:14 PM
1	manager	Manager	6/13/2019 1:10 PM
1	manager	Manager	6/13/2019 1:06 PM
1	manager	Manager	6/13/2019 12:54 PM
3	fazil	Sales Clerk	6/13/2019 12:49 PM
1	manager	Manager	6/13/2019 12:48 PM
1	manager	Manager	6/13/2019 12:39 PM
3	fazil	Sales Clerk	6/13/2019 8:52 AM
2	Sameera	Stock Admin	6/13/2019 8:49 AM
1	manager	Manager	6/13/2019 8:43 AM
1	manager	Manager	6/12/2019 11:02 PM
1	manager	Manager	6/12/2019 7:48 PM
1	manager	Manager	6/12/2019 7:45 PM
1	manager	Manager	6/12/2019 7:16 PM

- Only manager can access this form
- This form shows the details and the user who logged in.

## Report home

- □ ×

### Report Home

Garment Stock Report

Marterial Stock Report

Sales Order Report

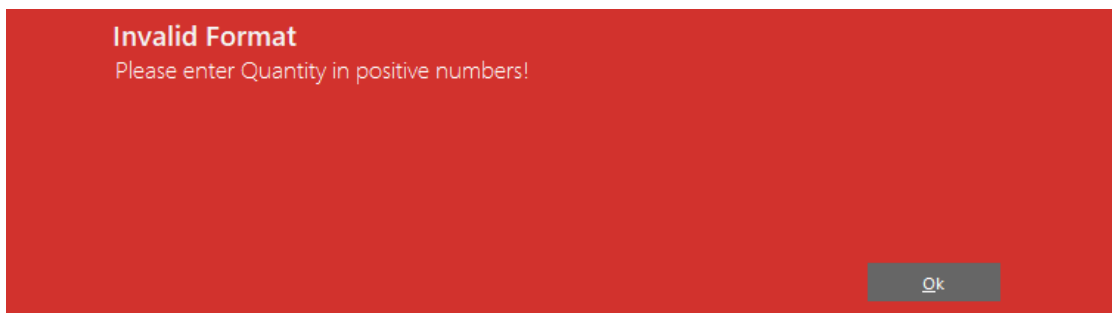
Material Used Report

- 
- Only manager can access this form.
  - In this form manager can select which report he is going to generate.
  - Only manager can access this form.
  - They are four kind of reports are available.

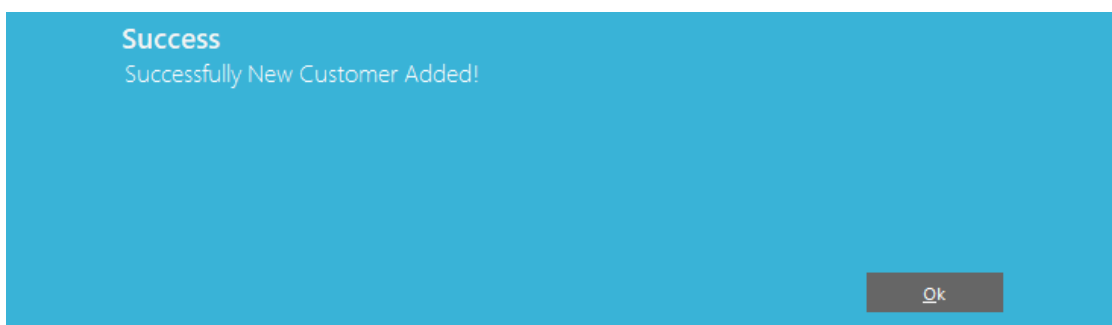
## General Message Boxes



When a user forgets to select or input any values to a required input field, the empty value message box will be shown. User have to input valid values to the input fields.

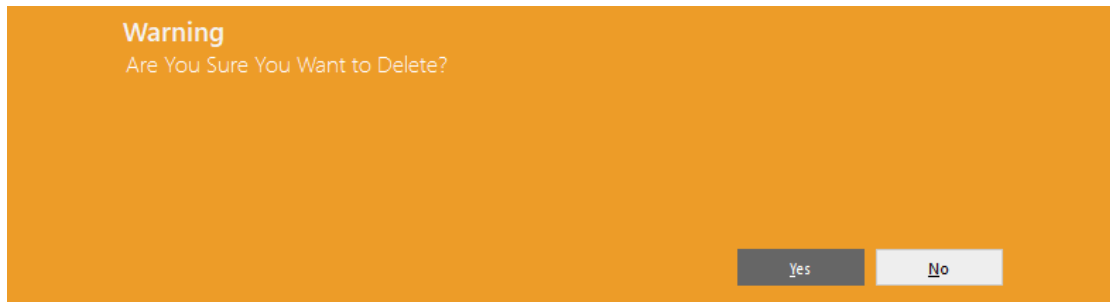


Above message box will be shown when a user inserted value to a field is not valid, after user click a submission button. User can check the validations in message box that details it.

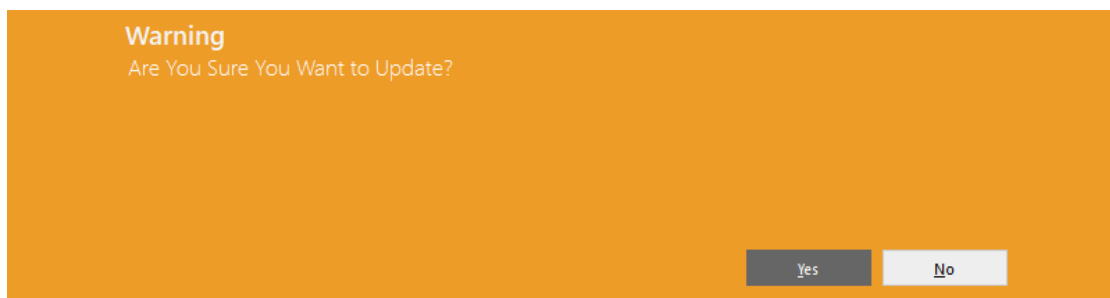


When a user input values to required fields and all values are valid the form will be successfully submitted. This message box will be shown to confirm it that the new data is added successfully.

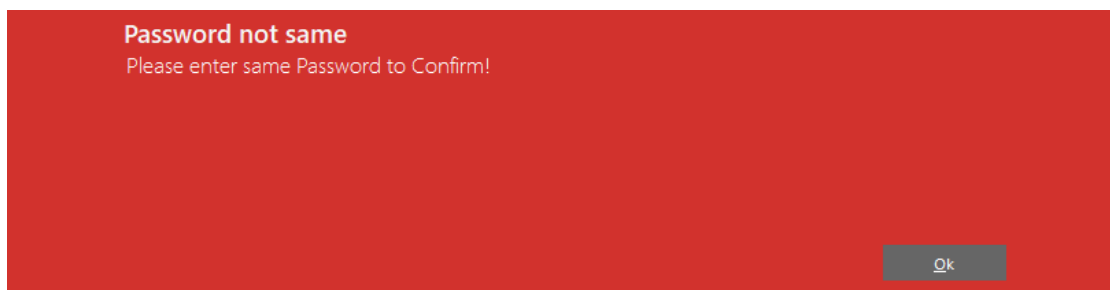




The system will pop up a warning message to indicate that user is going to delete a data from the database and the above message box ask for the confirmation. If user click 'Yes' the data will be deleted and if user click 'No' nothing happens to data.



The system will pop up a warning message to indicate that user is going to update a set of data from the database and the above message box ask for the confirmation. If user click 'Yes' the data will be updated and if user click 'No' nothing happens to data.



When a manager adds a new user, user must type their password two times to confirm it. the above message box will be shown to indicate that the user's passwords are not same. If this message box will pop up, user have to type the passwords correctly.

## Report/ Document Design

### Garment stock report

Garment Stock Report

**SG FASHION**  
Ehellyagoda, Ratnapura  
Tel: 0777862675

**Garment Stock Report**

Date: Tuesday, June 11, 2019

Model ID	Type	Category	Name	Quantity
S0003	Skirt	S n G Fashion	skooortya	90
S0002	Skirt	Womens Sty.	fff	125
T0001	TShirt	Womens Sty.	shirozaaa	390
S0001	Skirt	ZARA Basic	squeez	480
Total Quantity				1085

1

- This report shows the currently available stocks.

## Order report

OrderReportForm

From Date  To Date

1 of 1 100% Find | Next

**SG FASHION**  
Ehellyagoda, Ratnapura  
Tel: 0777862675  
**Sales Order Report**

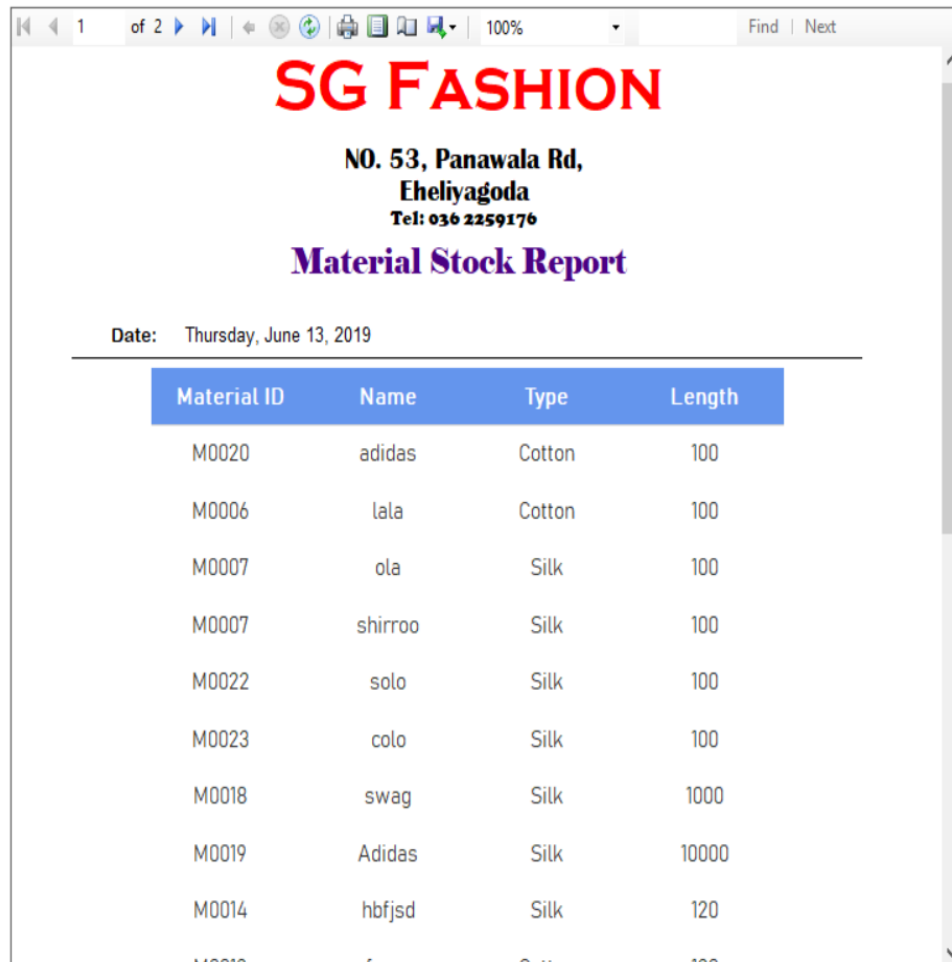
From: Saturday, June 1, 2019 To: Saturday, June 1, 2019

Order ID	Customer ID	Model ID	Model Price	Qty	Amount
00014	3	B0001	750	1	Rs.750.00
00017	3	B0004		3	Rs.3750.00
00016	3	B0003		2	Rs.5000.00
00007	3	B0002	2000	10	Rs.20000.00
00009	3	B0002	2000	10	Rs.20000.00
00015	3	S0001	1500	50	Rs.75000.00
00015	3	B0003		50	Rs.125000.00
Total					Rs.249500.00

- User need to insert from date and to date to generate the report.
- User inputs are validated.
- This report shows the order details based on the date given by user.

## Material stock report

### Material Stock Report



**SG FASHION**  
NO. 53, Panawala Rd,  
Eheliyagoda  
Tel: 036 2259176

**Material Stock Report**

Date: Thursday, June 13, 2019

Material ID	Name	Type	Length
M0020	adidas	Cotton	100
M0006	lala	Cotton	100
M0007	ola	Silk	100
M0007	shirroo	Silk	100
M0022	solo	Silk	100
M0023	colo	Silk	100
M0018	swag	Silk	1000
M0019	Adidas	Silk	10000
M0014	hbfjsd	Silk	120
M0012	fggg	Cotton	120

- This report shows the amount of currently available material.

## Order Bill

Bill

1 of 1 100% Find | Next

**SG FASHION**  
No:514, Bandarawatta,  
Eheliyagoda  
Tel: 036 - 2259176

6/11/2019 1:04:05 AM  
Customer ID: 3  
Delivery Date: 6/11/2019 Order No: 00027

#	Item ID	Item	QTY	Price	Amount
1	S0001	squeez	20	1500	30000
Total					30000

- This report automatically generates after confirming a order by using place an order form.

## Used material report

### Used Material Report Form

The screenshot shows a web browser window displaying a report form. The browser's address bar shows '1 of 2' pages. The report header includes the company name 'SG FASHION' in large red letters, followed by the address 'NO. 53, Panawala Rd, Eheliyagoda' and the phone number 'Tel: 036 2259176'. The title of the report is 'Material Stock Report' in purple. Below this, the date and time are listed as 'Date: 6/16/2019 11:41:15 PM'. The main content is a table with four columns: 'Maerial ID', 'Material Date', 'Note', and 'Used Length'. The table contains four rows of data.

Maerial ID	Material Date	Note	Used Length
M0011	6/12/2019 10:59:27 PM	to do	10
M0001	4/12/2019 12:00:00 AM	test	50
M0007	6/11/2019 5:21:45 PM	successfully failed	50
M0007	6/11/2019 5:22:59 PM	successfully failed	50

- This report shows the used materials details and shows the total amount of the used material length

## **Conclusion**

By adopting this application, the company would be able to be benefitted in various ways. This would not only help the current situation of the company but would also be great advantage to the company in the future.

Everything in this world has some weakness so does this application. This application has some limitations too. Uninterrupted data connection is required for the update the database. Regarding that whenever user is going to use the application internet connection is required. If the internet is not connected, then user will receive a related error message. Have to pay for cloud database when exceeding the given free data limit and time limit. Comparing to the manual inventory management system these limitations are not going to cost too much. As per the calculations and figures this software could reduce 80% percentage of expenses costed by poor inventory management.

We tried our best to give a perfect outcome. We will collect customer feedback after one week to make this application more comprehensive, accurate and user friendly .

## **References**

- Edwards, P ‘The Systems Development Life Cycle’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Modeling Tools for the Systems Analyst’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Structure Methodologies’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘: Preliminary Systems Analysis’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Detailed Analysis’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Prototyping and Fourth-Generation Languages’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Output Design’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Input Design and Data Collection Screens’, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘File Design, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Database Design, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Network Design, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Software Design, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Programming, Quality Assurance, and Conversion, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Testing and Training, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Edwards, P ‘Maintaining and Managing the Systems Process, in Edwards, P., System Analysis and Design, ISBN: 0-07-113280-5.
- Sharp, J ‘ Welcome to C#’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘ Working with Variables, Operators, and Expressions’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Writing Methods and Applying Scope’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Using Decision Statements’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘ : Creating and Managing Classes and Objects’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J Understanding Values and References’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6



- Sharp, J ‘Creating Value Types with Enumerations and Structures’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Using Arrays and Collections’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Understanding Parameter Arrays’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Working with Inheritance’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Creating Interfaces and Defining Abstract Classes’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Using Garbage Collection and Resource Management’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Implementing Properties to Access Fields’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Using Indexers’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Interrupting Program Flow and Handling Events’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Introducing Generics’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Enumerating Collections’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Querying In-Memory Data by Using Query Expressions’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Operator Overloading’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Introducing Windows Presentation Foundation’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Working with Menus and Dialog Boxes’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Performing Validation’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Querying Information in a Database’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Sharp, J ‘Displaying and Editing Data by Using Data Binding’, in Sharp, J., Microsoft Visual C# Step by Step, ISBN: 978-81-203-3449-6
- Stellman, A and Greene, J ‘Start building with C#: Building something cool, fast!’, in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J ‘It’s All Just Code: Under the hood’, in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J ‘: Objects: Get Oriented: Making code make sense’, in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J ‘Types and References: It’s 10:00. Do you know where your data is?’, in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.

- Stellman, A and Greene, J 'Encapsulation: Keep your privates...private', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Inheritance: Your object's family tree', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Interfaces and abstract classes: Making classes keep their promises', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Reading and Writing Files: Save the last byte for me!', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Designing Windows Store Apps with XAML: Taking your apps to the next level', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'XAML, File, I/O, and Data Contract Serialization: Writing files right', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Exception Handling: Putting out fires gets old', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Captain Amazing: The Death of the Object', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Querying Data and Building Apps with LINQ: Get control of your data', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'Events and Delegates: What your code does when you're not looking', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- Stellman, A and Greene, J 'v', in Stellman, A and Greene, J., Head First C#, ISBN 13: 978-93-5110-353-0.
- [SQL Tutorial\(2019\).Available at: https://www.w3schools.com/sql/default.asp](https://www.w3schools.com/sql/default.asp)
- [How to open a new form from another form \(2019\).Available at: https://stackoverflow.com/questions/3965043/how-to-open-a-new-form-from-another-form](https://stackoverflow.com/questions/3965043/how-to-open-a-new-form-from-another-form)
- [GPS Tracking system Available at: https://stackoverflow.com/questions/1062725/c-gps-tracking-system](https://stackoverflow.com/questions/1062725/c-gps-tracking-system)
- [How can I make the image size smaller on a button? Available at: Available https://stackoverflow.com/questions/9818354/how-to-resolve-azure-windows-logins-are-not-supported-in-this-version-of-sql-se](https://stackoverflow.com/questions/9818354/how-to-resolve-azure-windows-logins-are-not-supported-in-this-version-of-sql-se)
- [Increment a string with both letters and numbers: \(2019\).Available at: https://stackoverflow.com/questions/15268931/increment-a-string-with-both-letters-and-numbers](https://stackoverflow.com/questions/15268931/increment-a-string-with-both-letters-and-numbers)
- [How to remove time portion of date in C# in DateTime object only?: \(2019\).Available at: https://stackoverflow.com/questions/6121271/how-to-remove-time-portion-of-date-in-c-sharp-in-datetime-object-only](https://stackoverflow.com/questions/6121271/how-to-remove-time-portion-of-date-in-c-sharp-in-datetime-object-only)
- [How to select the last record of a table in SQL?: \(2019\).Available at: https://stackoverflow.com/questions/5191503/how-to-select-the-last-record-of-a-table-in-sql](https://stackoverflow.com/questions/5191503/how-to-select-the-last-record-of-a-table-in-sql)

- [How to get the value of autoincrement of last row at the insert: \(2019\).Available at: https://stackoverflow.com/questions/13451070/how-to-get-the-value-of-autoincrement-of-last-row-at-the-insert](https://stackoverflow.com/questions/13451070/how-to-get-the-value-of-autoincrement-of-last-row-at-the-insert)
- [Assign a database value to variable: \(2019\).Available at: https://stackoverflow.com/questions/47597430/assign-a-database-value-to-variable](https://stackoverflow.com/questions/47597430/assign-a-database-value-to-variable)
- [How to display data from database into textbox, and update it: \(2019\).Available at: https://stackoverflow.com/questions/14113025/how-to-display-data-from-database-into-textbox-and-update-it](https://stackoverflow.com/questions/14113025/how-to-display-data-from-database-into-textbox-and-update-it)
- [MySQL query to return last record for each table \(2019\).Available at: https://stackoverflow.com/questions/9115059/mysql-query-to-return-last-record-for-each-table](https://stackoverflow.com/questions/9115059/mysql-query-to-return-last-record-for-each-table)
- [How do I open a Visual Studio project in design view?: \(2019\).Available at: https://stackoverflow.com/questions/17137556/how-do-i-open-a-visual-studio-project-in-design-view](https://stackoverflow.com/questions/17137556/how-do-i-open-a-visual-studio-project-in-design-view)
- [How to use MessageBox in class library c#: \(2019\).Available at: https://stackoverflow.com/questions/15848787/how-to-use-messagebox-in-class-library-c](https://stackoverflow.com/questions/15848787/how-to-use-messagebox-in-class-library-c)
- [Altering a column: null to not null \(2019\).Available at: https://stackoverflow.com/questions/689746/altering-a-column-null-to-not-null](https://stackoverflow.com/questions/689746/altering-a-column-null-to-not-null)
- [What is the equivalent of 'describe table' in SQL Server?: \(2019\).Available at: https://stackoverflow.com/questions/319354/what-is-the-equivalent-of-describe-table-in-sql-server](https://stackoverflow.com/questions/319354/what-is-the-equivalent-of-describe-table-in-sql-server)
- [How to make a TextBox accept only alphabetic characters?: \(2019\).Available at: https://stackoverflow.com/questions/8321871/how-to-make-a-textbox-accept-only-alphabetic-characters](https://stackoverflow.com/questions/8321871/how-to-make-a-textbox-accept-only-alphabetic-characters)
- [Returning back to the beginning of a block of code?\(2019\).Available at: https://stackoverflow.com/questions/20722263/returning-back-to-the-beginning-of-a-block-of-code](https://stackoverflow.com/questions/20722263/returning-back-to-the-beginning-of-a-block-of-code)
- [How to use MessageBox in class library c#: \(2019\).Available at: https://stackoverflow.com/questions/15848787/how-to-use-messagebox-in-class-library-c](https://stackoverflow.com/questions/15848787/how-to-use-messagebox-in-class-library-c)