

presenter:

Name: Itay Chabte
ID: 301839452

Object Oriented Programming - 20586

SmartShop

May 13, 2021

Specification and analysis document

Table of contents

Overview	3
Goals	3
System description	4
Manager / employee (depending on authorization):	4
Customer	5
System components	5
Use Case diagrams	6
Customer management	6
Product and order management	7
Workers management	9
Create a connection and purchase	10
activity diagram	11
Product purchase	11
Inventory management	12
Manual	13
Administrator's Guide	13
Manager and employee entry and toolbar change	13
Category Management	15
User Management	16
Product Management	17
Purchase Management	19
Worker Management	21
Store Management	23
Data Analyst Management	24
Exception Management	26
Customer's Guide	27
Manager and employee entry and toolbar change	27
Sign up	28
Profile management	29
Ordering items	31
Cart and purchase management	32

Overview

The SmartShop is a platform for small businesses that want to enter the world of online sales easily and instantly

The idea is to give a system to small businesses where they can manage sales, users, employees, etc. in a convenient and easy way and get information to optimize sales in the store

The platform is structured in such a way that it is dynamic for each store but gives the same solution to all the actions required by each basic stores.

Goals

1. **Introducing to the online world:** Give small businesses the opportunity to enter the online world and ease the management of the business and its users
2. **Independent system:** The platform allows for independent maintenance which means that after initial data entry no further development is required.

Therefore the platform enables customers to place orders and manage account and on the part of the manager / employee, the platform enables convenient control and management.

3. **Simplicity of use:** The purpose of the system is to be very simple to use and interactive for both the customer and the manager / employee

System description

User system requirements

1. Manager / employee (depending on authorization):

- a. Customer management:
 - i. Option to add \ delete \ update \ Search a customer
 - ii. View customer details
- b. Category management:
 - i. Option to add \ delete \ update \ Search a category
 - ii. View category details
- c. Product management:
 - i. Option to add \ delete \ update \ Search a product
 - ii. Fast management of out-of-stock products
 - iii. View product details
- d. Purchasing management:
 - i. View purchase details
 - ii. Change status to order status
- e. Workers management:
 - i. Option to add \ delete \ update \ Search an employees
 - ii. View employees details
 - iii. Giving / taking Authorization from employees
- f. Sales analysis management:
 - i. Show graph of sales from date to date
 - ii. Show percentage cut of the products sold
 - iii. Show graph of comparing sales between 2 products
- g. Store details management:
 - i. Initial\ Change Store info

- ii. Adding social media(Optional)
- h. Exception management:
 - i. Show Exception when occurred

2. Customer

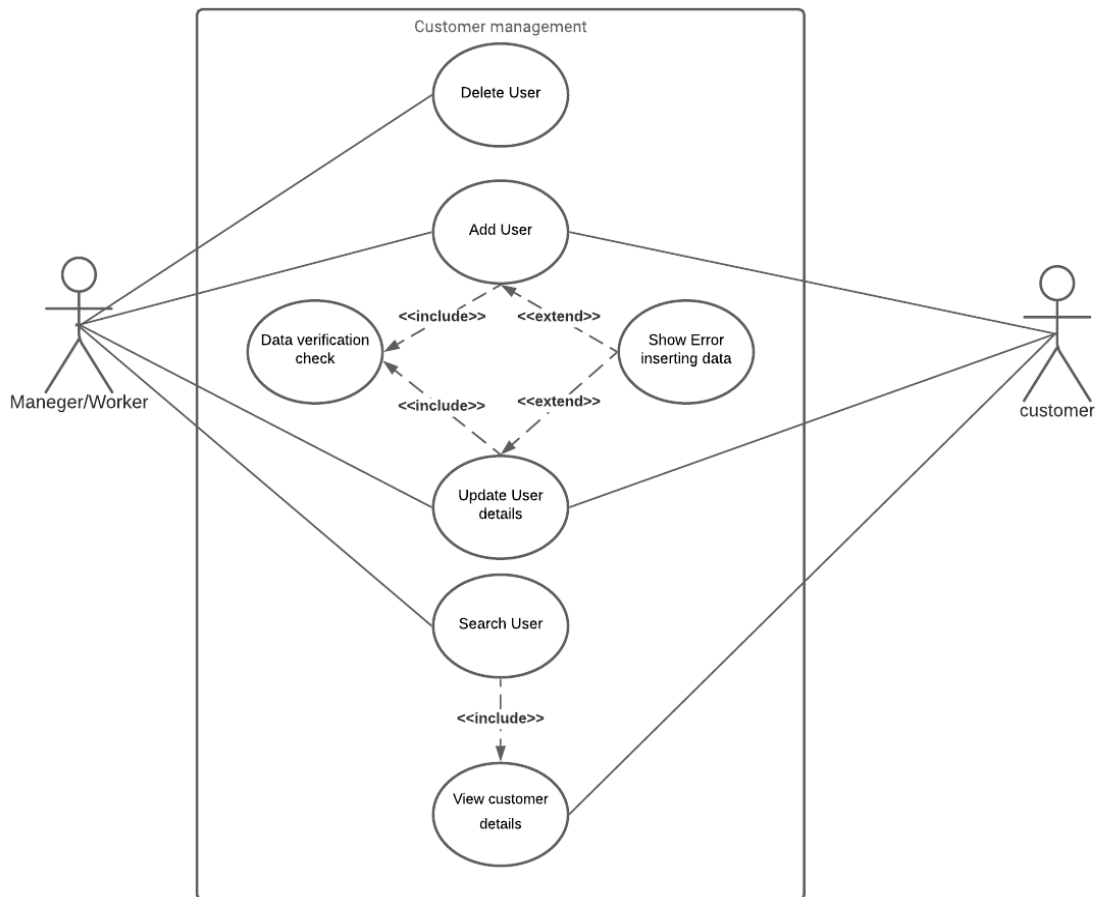
- a. Account management:
 - i. Change details
 - ii. Change password
 - iii. View Purchase History
- b. Purchasing system:
 - i. Add product to cart
 - ii. Remove product from cart
 - iii. Confirmation of purchase and checkout
- c. Customer registration:
 - i. Login\Logout
 - ii. New registration if not registered

System components

1. Frontend - runs on Customer/Manager/Workers platform, both Manager/Workers and customers access the platform via the front end, no additional installations required.
2. Server that runs all the business logic.
3. Databases - that runs on sql server platform, can be changed.

Use Case diagrams

1. Customer management



- Manager/Worker add new customer only if the details are valid.
- Manager/Worker delete existing customer.
- Manager/Worker update existing customer only if the details are valid.
- Manager/Worker Search existing customer.
- Customer registered only if the details are valid.
- Customer updates his details only if the details are valid.



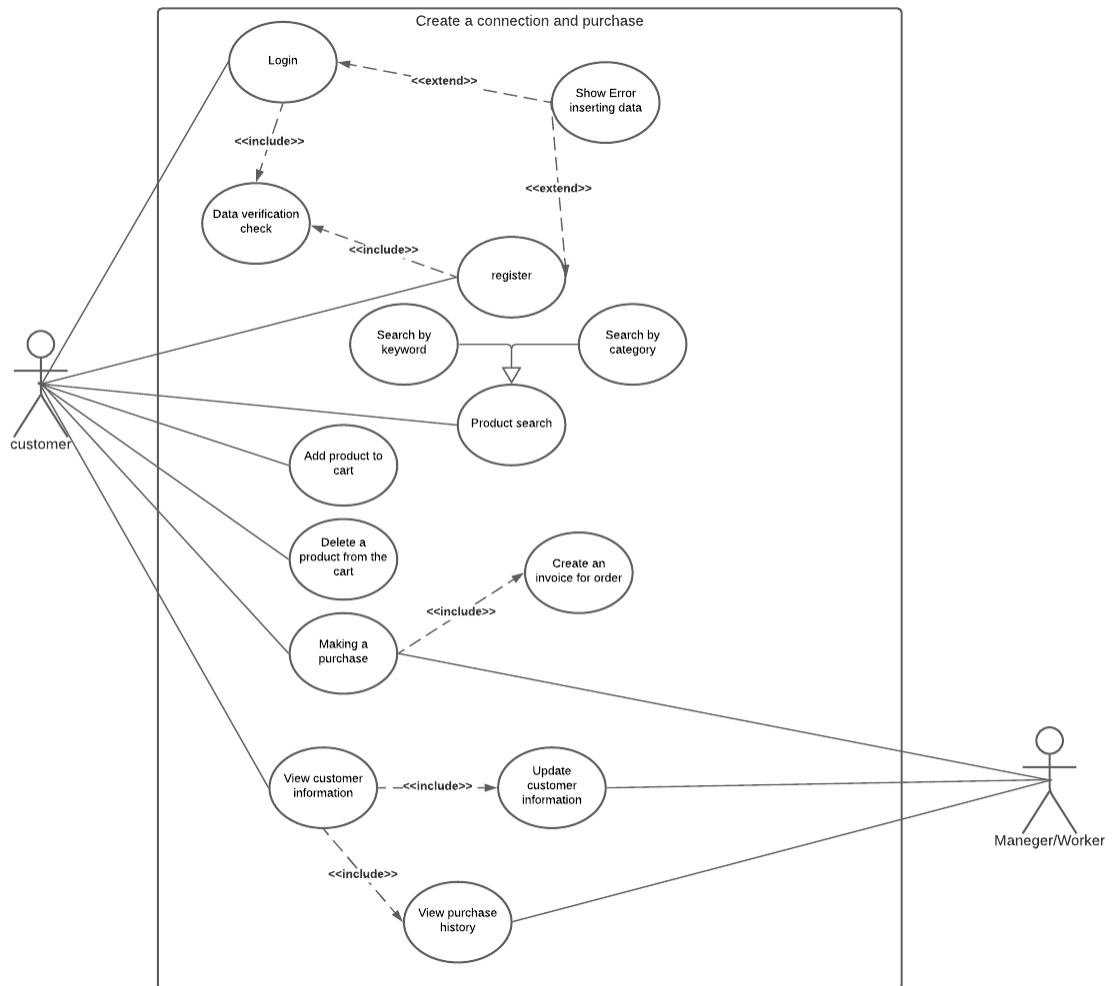
- a. Manager/Worker add new product only if the details are valid ,and by doing so the quantity is updated.
- b. Manager/Worker delete existing product.
- c. Manager/Worker update existing product only if the details are valid ,And by doing so the quantity is updated.
- d. Manager/Worker Search existing product By keyword or category.
- e. Customer Search existing product By keyword or category.
- f. Customer add/delete product from cart.
- g. Customer making a purchase ,And by doing so the quantity is updated and an invoice is created
- h. Customer can View purchase history
- i. Manager/Worker can View purchase history

3. Workers management



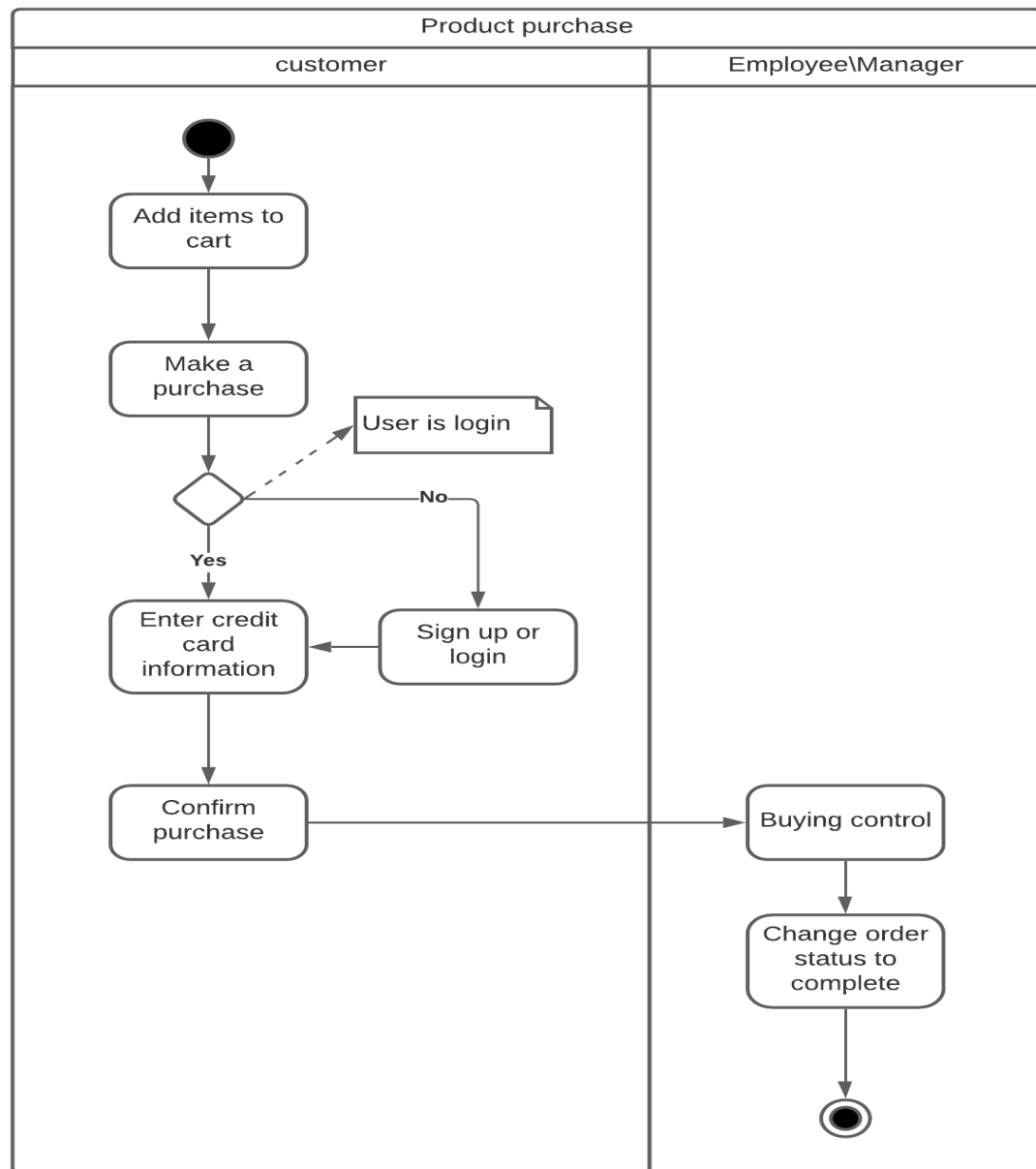
- Manager add new worker only if the details are valid.
- Manager delete existing worker.
- Manager update existing worker only if the details are valid.
- Manager Search existing worker By keyword
- Manager login/logout vie personal ID and password
- Customer login/logout vie personal ID and password

4. Create a connection and purchase

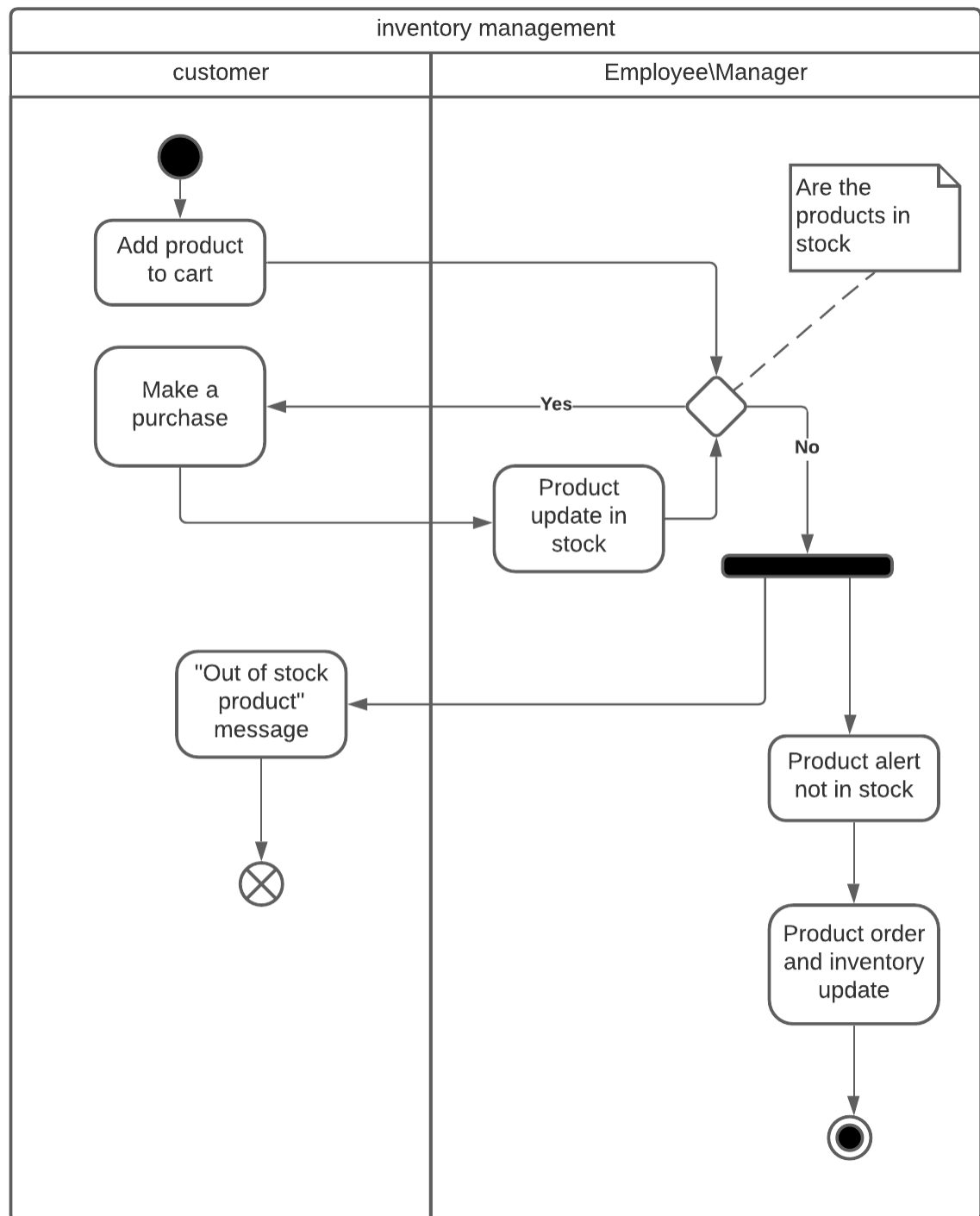


- Customer login If password and email match.
- Customer register only if the details are valid.
- Customer can update his details ,only if the details are valid.
- Customer Search existing product By keyword or category.
- Customer add/delete product from cart.
- Customer making a purchase as a result Customer and Manager/Worker can View purchase history

activity diagram

1. Product purchase

2. Inventory management



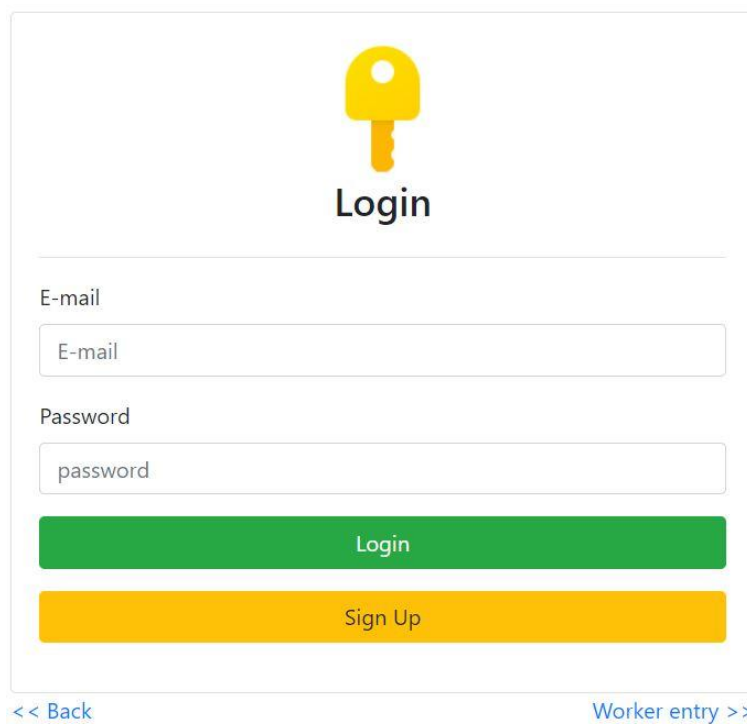
Manual

Administrator's Guide

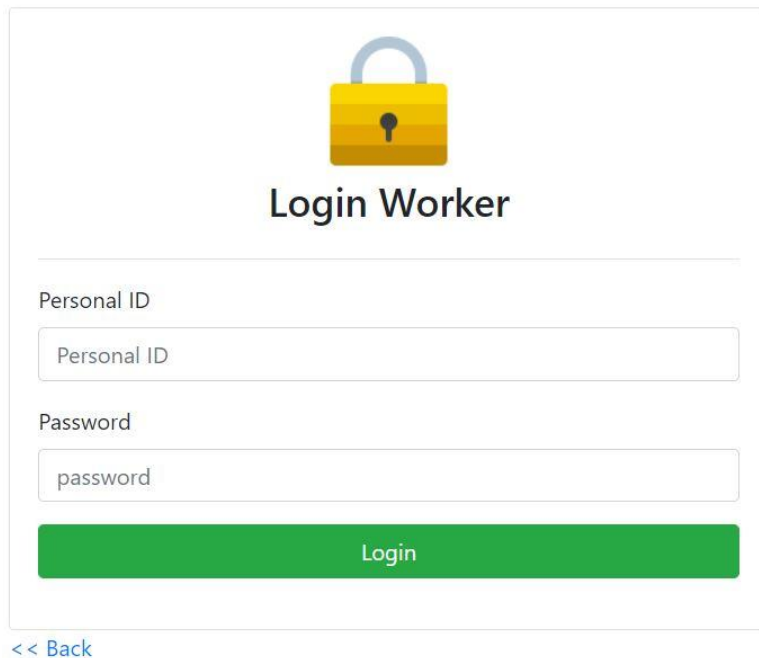
1. Manager and employee entry and toolbar change



- a. **Login:** Clicking the "Login" button on the toolbar will take you to the Login page

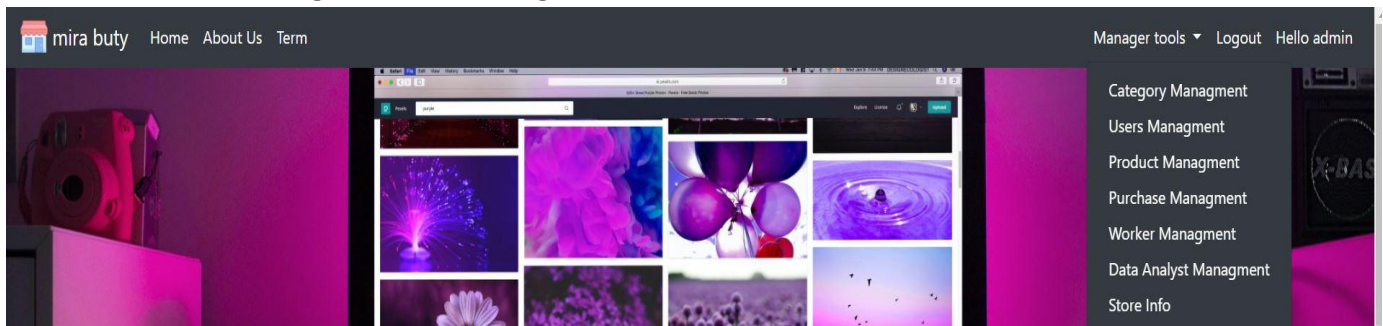
The image shows a login form. At the top center is a large yellow key icon. Below it, the word 'Login' is written in a bold, black font. Underneath is a horizontal line. Below the line are two input fields. The first is labeled 'E-mail' and contains the placeholder text 'E-mail'. The second is labeled 'Password' and contains the placeholder text 'password'. Below the input fields are two buttons: a green button labeled 'Login' and a yellow button labeled 'Sign Up'. At the bottom left of the form area, there is a link '<< Back' and at the bottom right, a link 'Worker entry >>'.

Pressed the hyperlink “Worker entry” and it will take you to the Worker Login page




The image shows a login form titled "Login Worker". At the top is a yellow padlock icon. Below the title are two input fields: "Personal ID" and "Password". The "Personal ID" field contains the text "Personal ID" and the "Password" field contains the text "password". Below these fields is a green "Login" button. At the bottom left of the form is a blue link that says "<< Back".

Enter personal ID number and password
The site is initialized for the administrator:
ID: 0
Password: 123456
The toolbar will change depending on the Worker's authorization
Press “logout” button to log out



2. Category Management

Category Info



Category ID

ID

Title

Title

Description

Description

ADD

UPDATE

CLEAR

Category List

Show

10

 entries

Search:

		Id	Title	Description	Added_Date
Select	Del	1	cola	drink	03/03/2021 16:13:33
Select	Del	17	fdgdf	dffgdf	04/03/2021 18:32:05
Select	Del	18	ishai	king jbk kjb hj	02/05/2021 10:01:38
Select	Del	22	sdfs	,mblsdf	29/04/2021 12:54:36
Select	Del	23	omer	how are you	29/04/2021 12:55:36
Select	Del	24	noasd	no1	02/05/2021 10:01:16
Select	Del	25	D	ZDF4	02/05/2021 11:58:02

Showing 1 to 7 of 7 entries

Previous

1


Next

- Add Category:** Fill in the form as requested and if there is an error, the error will be displayed at the bottom of the page and click on "Add" button
- Category update:** Select one of the categories from the list on the left by clicking the "Select" button

The ID of the category you will see in "Category ID", Fill out the form as desired and click the "Update" button
- Delete Category:** Select one of the categories from the list on the left by clicking the "Delete" button
- Search Category:** Write a search keyword, the result will be shown in the table

3. User Management

User Info



User ID

ID

First Name

Last Name

E-mail

Phone

Address

Password

ADD

UPDATE

CLEAR

Users List

Show 10 entries

Search:

Select	Del	41	itay	cohen	555@gmail.com	55	321654987	ascnh alsjoh sao
Select	Del	46	shely the qween	orent	6666@gmail.com	123456	0508987654	asd as ascasc
Select	Del	53	asdasd	asdasdasd	itay.chabte@gmail.com	123456	0508888888	sad
Select	Del	54	asdas	asd	asd@asd.com	123456	0508888888	asd

Showing 1 to 4 of 4 entries

Previous 1 Next


- Add User:** Fill in the form as requested and if there is an error, the error will be displayed at the bottom of the page and click on "Add" button
- User update:** Select one of the user from the list on the left by clicking the "Select" button

The ID of the User you will see in "User ID", Fill out the form as desired and click the "Update" button

- Delete User :** Select one of the user from the list on the left by clicking the "Delete" button
- Search User :** Write a search keyword, the result will be shown in the table

4. Product Management

Product Info



Product ID

3

Name

asd

Category

cola

Description

dv,lvs'dfsdfsdfsd fsfsvx kbn kjb mxc vkjxcbxm cvkjxc nvxjkv j

Price

2.50

Inventory

0

Image

בחרת קובץ

לא נבחר קובץ

ADD

UPDATE

CLEAR

Product List

Product not in inventory

☐ asd
 ☐ sdasd

Show 10 entries

Search:

Id			
2		asd Added Date - 12/05/2021 16:17:16 Category - cola Price - 12.00 Inventory - 100 Description - adslmkvxnc,vm.,dm dslkfm.m, vxcnv.xcnv, xcnv,,mxcn v xcv.xcv xncv,,x .xcnv.x xcvx	<div>Select</div> <div>Del</div>
3		asd Added Date - 18/05/2021 20:55:01 Category - cola Price - 2.50 Inventory - 0 Description - dv,lvs'dfsdfsdfsd fsfsvx kbn kjb mxc vkjxcbxm cvkjxc nvxjkv j	<div>Select</div> <div>Del</div>
4		asd Added Date - 12/05/2021 16:08:04 Category - cola Price - 12.00 Inventory - 300 Description - asdzvcv	<div>Select</div> <div>Del</div>
5		jhgkjfhfkfkf Added Date - 12/05/2021 18:50:57	<div>Select</div> <div>Del</div>

- Add Product:** Fill in the form as requested and if there is an error, the error will be displayed at the bottom of the page and click on "Add" button
- Product update:** Select one of the Product from the list on the left by clicking the "Select" button

The ID of the Product you will see in "Product ID", Fill out the form as desired and click the "Update" button
- Delete Product:** Select one of the Product from the list on the left by clicking the "Delete" button

- d. **Search Product:** Write a search keyword, the result will be shown in the table
- e. **Inventory control:** When there are products out of stock, a "Product out of stock" button will appear at the top of the table.

Product List

Product not in inventory


- ☐ asd
- ☐ sdasd

At the click of a button we get a list of products that are not in stock

By selecting one of the products we can update the product and it is dropped from the list

5. Purchase Management

Purchase Info



Order ID: Purchase Date:

Grand Total: User ID: User Name:

Card Number: Card Expiration Date:

CVV: Order Complete: ☐ Incomplete ☒ Complete

Purchase List

Show entries Search:

	OrderID	ID_User	Grand_Total	Purchase_Time	Complete
<input type="button" value="Select"/>	cdcda304-aa81-4878-a888-6504c3060052	41	10.00	02/05/2021 18:42:44	True
<input type="button" value="Select"/>	6b3646fc-86f6-4aad-8c1e-4c66fec06cd4	41	12.00	02/05/2021 18:49:32	True
<input type="button" value="Select"/>	1f7ab977-328a-42a7-a4d4-dc88284bef12	41	715.00	02/05/2021 18:55:32	True
<input type="button" value="Select"/>	b3472add-6746-4dcd-9268-d1a53ce6f461	41	179.00	02/05/2021 19:00:21	True
<input type="button" value="Select"/>	3c267f9e-54f1-4e1d-b461-8c4c954adf9f	41	667.00	02/05/2021 19:02:18	False
<input type="button" value="Select"/>	873a7bd5-798f-40ea-8336-0d0954e48515	41	10.00	02/05/2021 19:04:18	False
<input type="button" value="Select"/>	7b2f9415-9f5f-4480-84f3-95d6ad029b07	41	23.00	02/05/2021 19:10:02	False
<input type="button" value="Select"/>	3a3a8153-74fc-410a-b51f-335d9dc41c0a	41	23.00	02/05/2021 19:15:14	False

- a. **Purchase update:** Select one of the Purchase from the list on the left by clicking the "Select" button

The ID of the Purchase you will see in "Order ID", Choose whether the purchase is complete or not and click the "Update" button

The color in the table will change depending on the selection

Red - The order was not sent to the customer

Green - The order has been sent to the customer

- b. **Search Purchase :** Write a search keyword, the result will be shown in the table

- c. **Show Bill:** In selecting the purchase you can click on a button "Show Bill" and see the original invoice with all the details

You can download a PDF file of the Bill by clicking the button

Address : **herzel strite 31,kiryat arba**
Phone : **0778303008**
Phone : **itayc900@gmail.com**

Invoice

Order ID : **cdcda304-aa81-4878-a888-6504c3060052**

Billing Date : **02/05/2021 18:42:44**

To : **itay cohen**
Address : **ascnh alsjohbk sao**
Phone : **321654987**


Sno.	Product ID	Product Name	Price	Quantity	Total Price
1	5	jhgkjfhfkfkf	10	1	10
				Total:	10

This is a computer generated invoice and does not required signature

Download PDF

6. Worker Management

Worker Info



Worker ID

Personal ID

ID

Personal ID

First Name

Last Name

First Name

Last Name

Address

Phone

Address

Phone

Password

password

Authorization

☐Product Manage
 ☐Category Manage
 ☐User Manage
 ☐Purchase Manage

☐Worker Manage
 ☐DataAnalyst Manage
 ☐Store Manage

ADD

UPDATE

CLEAR

Worker List

Show 10 entries

Search:

	Id	PersonalID	First_Name	Last_Name	Password	Phone	Address		
<div>Select</div>	<div>Del</div>	1	0	admin	admin	123456	000000000	none	1
<div>Select</div>	<div>Del</div>	6	303030303	asdasd	asdasdasd	321654	0505050505	dssgsdfsf	1
<div>Select</div>	<div>Del</div>	8	301839453	asdasd	asdasdasd	123456	0508329762	xv	1

Showing 1 to 3 of 3 entries

Previous

1

Next

- Add Worker:** Fill in the form as requested and if there is an error, the error will be displayed at the bottom of the page and click on "Add" button

In addition to the details, we will select the permissions for each worker


Depending on the permissions the worker will get access to the various managements

- Worker update:** Select one of the worker from the list on the left by clicking the "Select" button

The ID of the worker you will see in "Worker ID", Fill out the form as desired and click the "Update" button

- c. **Delete Worker:** Select one of the worker from the list on the left by clicking the "Delete" button
- d. **Search Worker:** Write a search keyword, the result will be shown in the table

7. Store Management



Store Setting

Store Name	Phone	Address
<input type="text" value="mira buty"/>	<input type="text" value="0778303008"/>	<input type="text" value="herzel strite 31,kiryat arba"/>

E-mail	E-mail Access
<input type="text" value="itayc900@gmail.com"/>	<input type="text" value="itayshulamit1430"/>

FaceBook

Instagram

Twitter

Update

- a. **Store update:** Fill in the details for the store
- Required details:
 Store name, phone, address, email, email password
- Details of your choice:
 Facebook
 Instagram
 Twitter
- All changes will be seen on the site as well as in the account created for each purchase
 In addition to sending an email to every new user and every purchase



8. Data Analyst Management

Start Date



End Date



Show Data

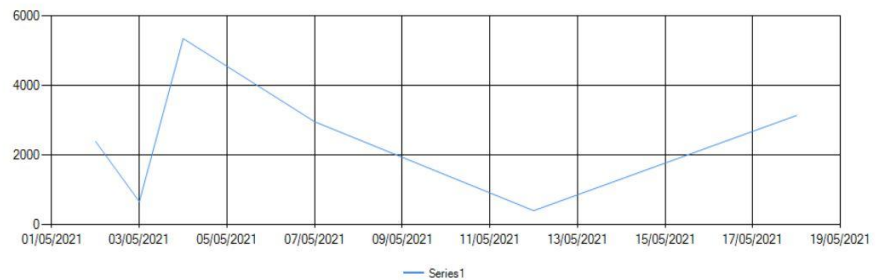
- a. **Show data:** Select start date and end date and click the "Show Data" button

After clicking the button we will get 2 graphs

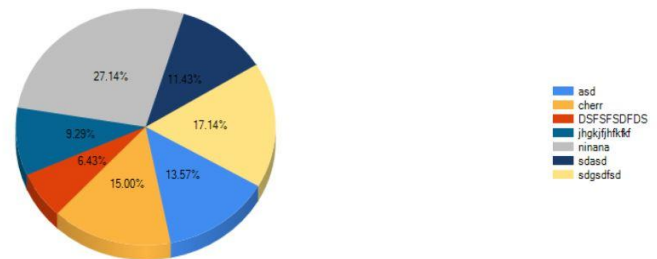
Order graph relative to time

Cake division of percentage of the sale of products

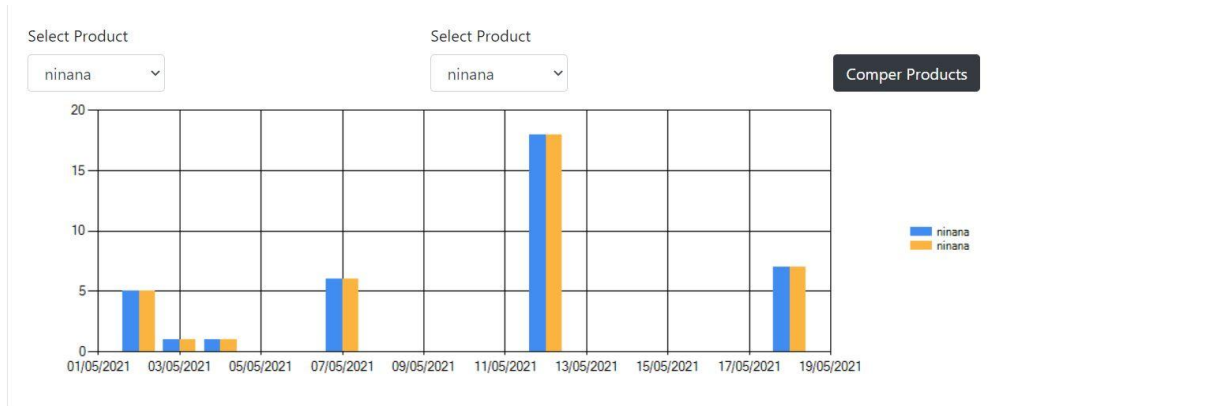
Total	Date
2397.00	02/05/2021 00:00:00
663.00	03/05/2021 00:00:00
5357.00	04/05/2021 00:00:00
2965.00	07/05/2021 00:00:00
405.00	12/05/2021 00:00:00
3145.32	18/05/2021 00:00:00



ProductName	Total
asd	19
cherr	21
DSFSFSDFDS	9
jhgkjfhfkf	13
ninana	38



- b. **Comparison between 2 products:** After selecting the 2 dates it will be possible to select 2 products or one for sale comparison on these dates



9. Exception Management

When Exception is occurred we get the screen with the error details

Oops an exeption accurd

File source

C:\Users\user\Desktop\hagash03\WebApplication1\DAL\DAL_User.cs

Line number

33

Error Message

An Error occurred
inner exception : Invalid object name 'Userss'.

Error Message

ג- DAL.DAL_User.Select() ג- C:\Users\user\Desktop\hagash03\WebApplication1\DAL\DAL_User.cs:33 שורה
 ג- BLL.BLL_User.Select() ג- C:\Users\user\Desktop\hagash03\WebApplication1\BLL\BLL_User.cs:24 שורה

Return Home

The error itself will be stored in the logError.axd file

In this case, contact the programmer with the details

Customer's Guide

1. Manager and employee entry and toolbar change




- a. **Login:** Clicking the "Login" button on the toolbar will take you to the Login page

A white rectangular box representing the login form. At the top center is a large yellow key icon with the word 'Login' in bold black text below it. Below this are two input fields: the first is labeled 'E-mail' and contains the placeholder text 'E-mail'; the second is labeled 'Password' and contains the placeholder text 'password'. Below the input fields are two buttons: a green button labeled 'Login' and a yellow button labeled 'Sign Up'. At the bottom left of the box is a blue link '<< Back' and at the bottom right is a blue link 'Worker entry >>'.

Enter E-mail and password and press on "Login" button
If this is the first time on the site click on "sign Up" button
The toolbar will change to the user name
Press "logout" button to log out



2. Sign up



Sign Up

First Name

First Name

Last Name

Last Name

E-mail

E-mail

Phone

Phone

Address

Address

Password

password


Confirm

Confirm

Sign Up

- Sign up:** Fill in the form as requested and if there is an error, the error will be displayed at the bottom of the page and click on "Sign up" button
The user will receive an email with the username and password from the site

3. Profile management



Your Profile

First Name

Last Name

E-mail

Phone

Address

Change Password

Old Password

New Password

Confirm

Update



Purchase History

Show

10

entries

Search:

	OrderID	ID_User	Grand_Total	Purchase_Time
Bill	16b5173b-2c0f-4416-b689-b7dbbc4d13e	46	153.00	03/05/2021 14:43:51
Bill	e5290c0a-42cf-4c3b-82f6-7d0d7ad0bbab	46	510.00	03/05/2021 14:50:39
Bill	a1a32e92-9bb1-4c1a-b573-0b9bc2f0d950	46	3557.00	04/05/2021 01:02:37
Bill	6c29623b-4f97-4b40-a12a-5827841211af	46	2230.00	07/05/2021 18:01:35
Bill	56788fcd-d01e-4893-ace4-138aec875162	46	735.00	07/05/2021 18:13:35
Bill	7f168d6f-6673-4be4-917b-3cd6129a74e8	46	35.00	12/05/2021 11:21:00
Bill	c294999b-7b5d-4bc9-9e44-5961cff14ef4	46	120.00	12/05/2021 16:38:47
Bill	32951972-d0d7-49f1-a70f-393b75c27224	46	10.00	12/05/2021 18:50:57
Bill	efcea707-840c-4ace-a32d-9c67ece2bd10	46	120.00	12/05/2021 18:53:08
Bill	1690e066-6a2a-4503-b442-b23eeab7f1aa	46	3145.32	18/05/2021 18:04:25

Showing 1 to 10 of 10 entries

Previous

1

Next

- a. **Profile update:** When you click on the name in the toolbar, you enter the Profile Management page, the details will load automatically. The details and password can be changed individually.

Change Password

Old Password

New Password

Confirm

old password

new password

Confirm

To change the password, click on the "Change Password" button and make a password change. At the end we click on the "Update" button.

- b. **Purchasing History** : Select one of the Purchase from the list on the left by clicking the "Bill" button In selecting the purchase the bill window will open with original invoice with all the details

You can download a PDF file of the Bill by clicking the button

Address : **herzel strite 31,kiryat arba**
 Phone : **0778303008**
 Phone : **itayc900@gmail.com**

Invoice

Order ID : **cdcda304-aa81-4878-a888-6504c3060052**

Billing Date : **02/05/2021 18:42:44**

To : **itay cohen**
 Address : **ascnh alsjohbk sao**
 Phone : **321654987**

Sno.	Product ID	Product Name	Price	Quantity	Total Price
1	5	jhgkjfhfkfkf	10	1	10
				Total:	10

This is a computer generated invoice and does not required signature

[Download PDF](#)


- c. **Search Purchase** : Write a search keyword, the result will be shown in the table

4. Ordering items

Search

Search

select by category




asd

Category - cola
Price - 12.00
Description - adslmkvxc,vm, dm dslkfm.m, vxcnv.xcnv, xcvn, mxcn v xcv.xcv xncv, x .xcnv.x xcvx

- 0 +

Order




asd

Category - cola
Price - 2.50
Description - dv,lvs'dfsdfs dsfsvx kbn kjb mxc vkjxcbxm cvkjsc nvxjv j

- 0 +

Order




asd

Category - cola
Price - 12.00
Description - asdzvcv

- 0 +

Order




jhgkjfhfkfkf

Category - ishai
Price - 10.00
Description - sdfsd sdf

- 0 +

Order



sdasd

Category - ishai
Price - 23.00
Description - asdasd

- 0 +

Order


- Product search:** You can search by keyword or category
- Add product to cart :** Each product appears with a name, image, price, description and category

You can select up to 20 items from each product or while stocks last




Then click the "Order" button

5. Cart and purchase management

Orders In Cart



[Clear Cart](#)

	Product Name	Price	Quantity	Total Price	
	sdasd	23.00	6	138	X
	ninana	20.76	4	83.04	X
	sdgsdfsd	123.00	4	492	X
				Total	713.04

[Buy](#)
[Return Home](#)

- a. **Delete product:** Clicking on the red X will delete the product from the cart
- b. **Delete the entire product:** Clicking Clear will delete all products from the cart
- c. **Making a purchase :** Clicking on the "Buy" button will open a registration window if the user is not logged in

notice !
×


You must sign in to purchase the items

Sign Up

Login

The customer will log in / register

Then we will return to the cart page and a payment window will open

 **Credit Card Info** ×

Card number

Expiration date

CVV

[Sign Up](#)

The customer will enter the credit card details where he wants to make a payment

After confirmation an invoice page will open and the order has been placed

mira buty

Address : **herzel strite 31,kiryat arba**

Phone : **0778303008**

Phone : **itayc900@gmail.com**

Invoice

Order ID : **5fcc0a2d-d13f-4ff8-8dd8-f464298748f3**

To : **shely the qween orent**

Address : **asd asdasd ascasd**

Phone : **0508987654**

Billing Date : **18/05/2021 23:34:34**

Sno.	Product ID	Product Name	Price	Quantity	Total Price
1	8	sdasd	23	6	138
2	21	ninana	20.76	4	83.04
3	24	sdgsdfsd	123	4	492
				Total:	713.04

This is a computer generated invoice and does not required signature

An email will be send to the customer with the order number