

presenter:

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Object Oriented Programming - 20586

SmartShop

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Specification and analysis document

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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

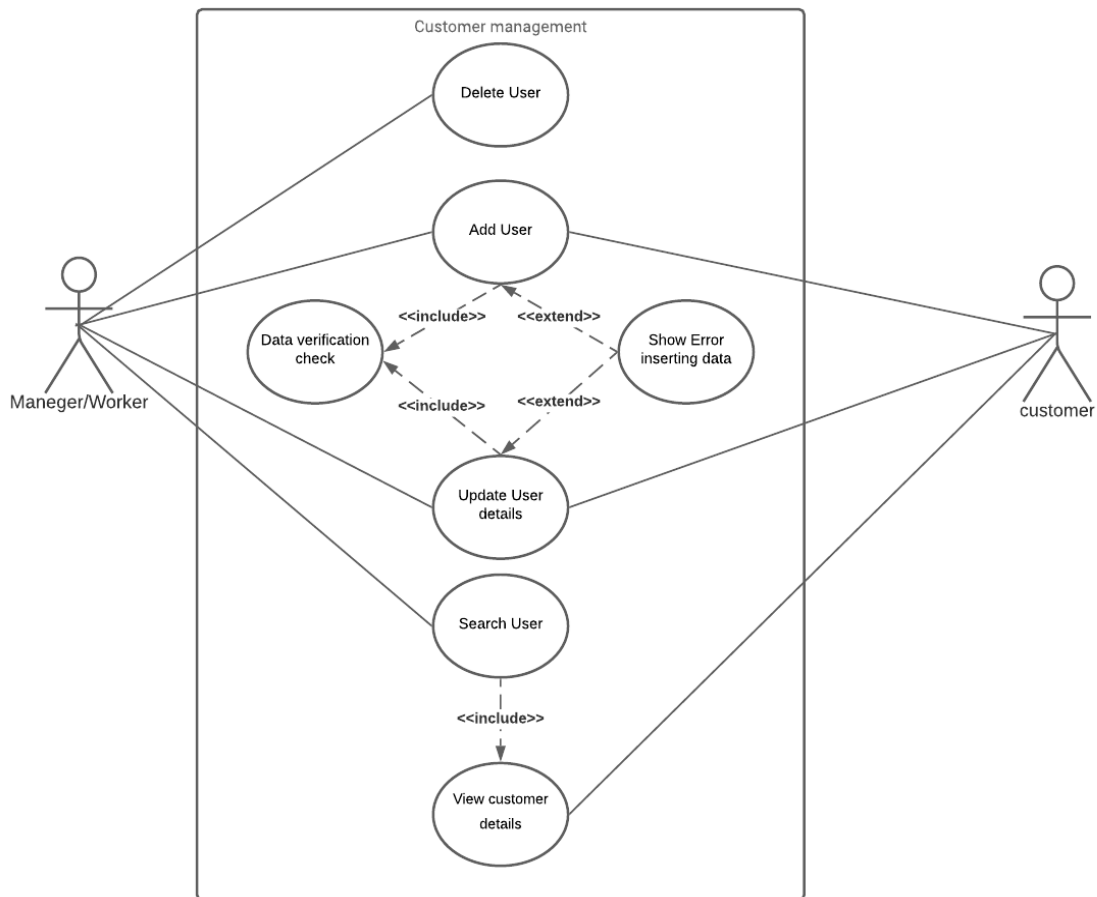
- a. Account management:
 - i. Change details
 - ii. Change password
 - iii. View Purchase History
- b. Purchasing system:
 - i. Add product to cart
 - ii. Remove product from cart
 - iii. Confirmation of purchase and checkout
- c. Customer registration:
 - i. Login\Logout
 - ii. New registration if 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.



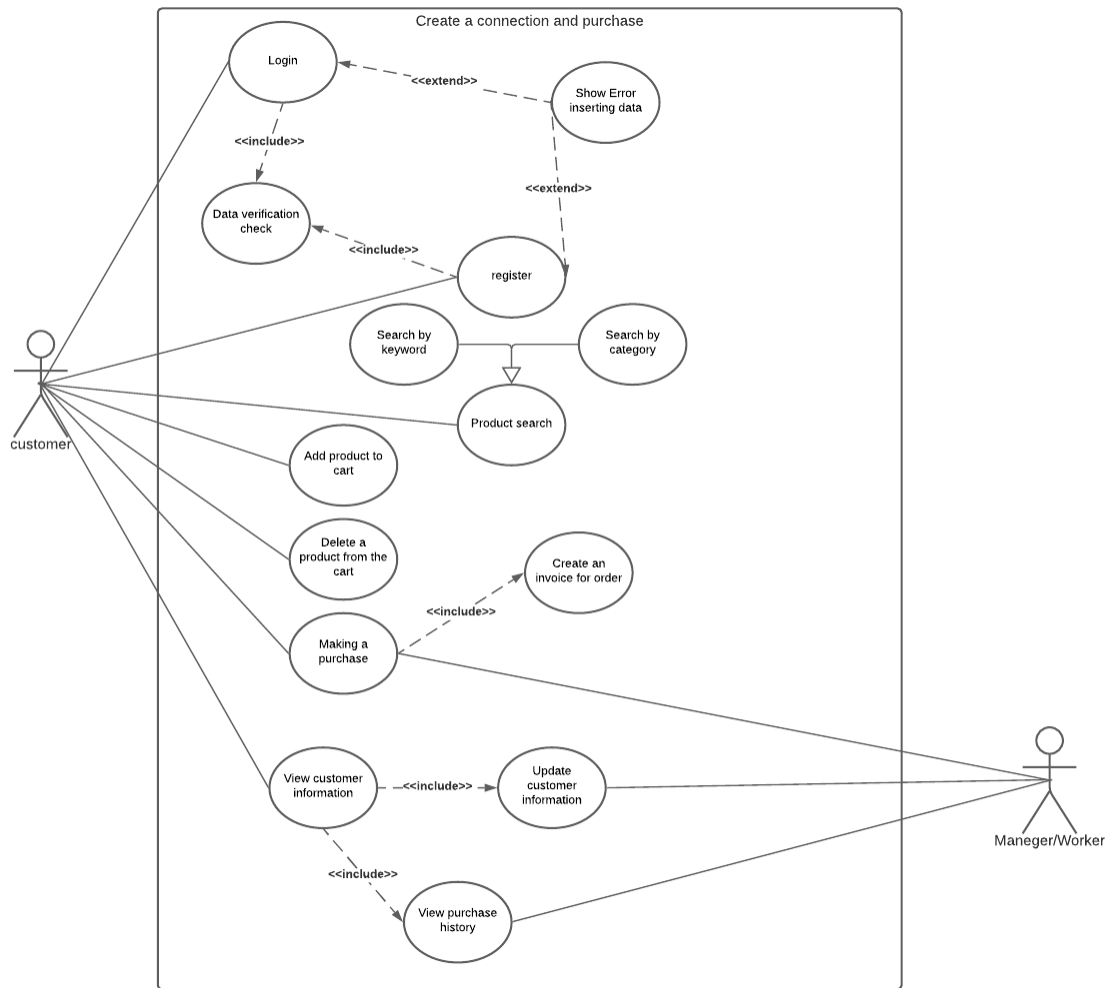
- a. Manager/Worker add new product only if the details are valid ,and by doing so the quantity is updated.
- b. Manager/Worker delete existing product.
- c. Manager/Worker update existing product only if the details are valid ,And by doing so the quantity is updated.
- d. Manager/Worker Search existing 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



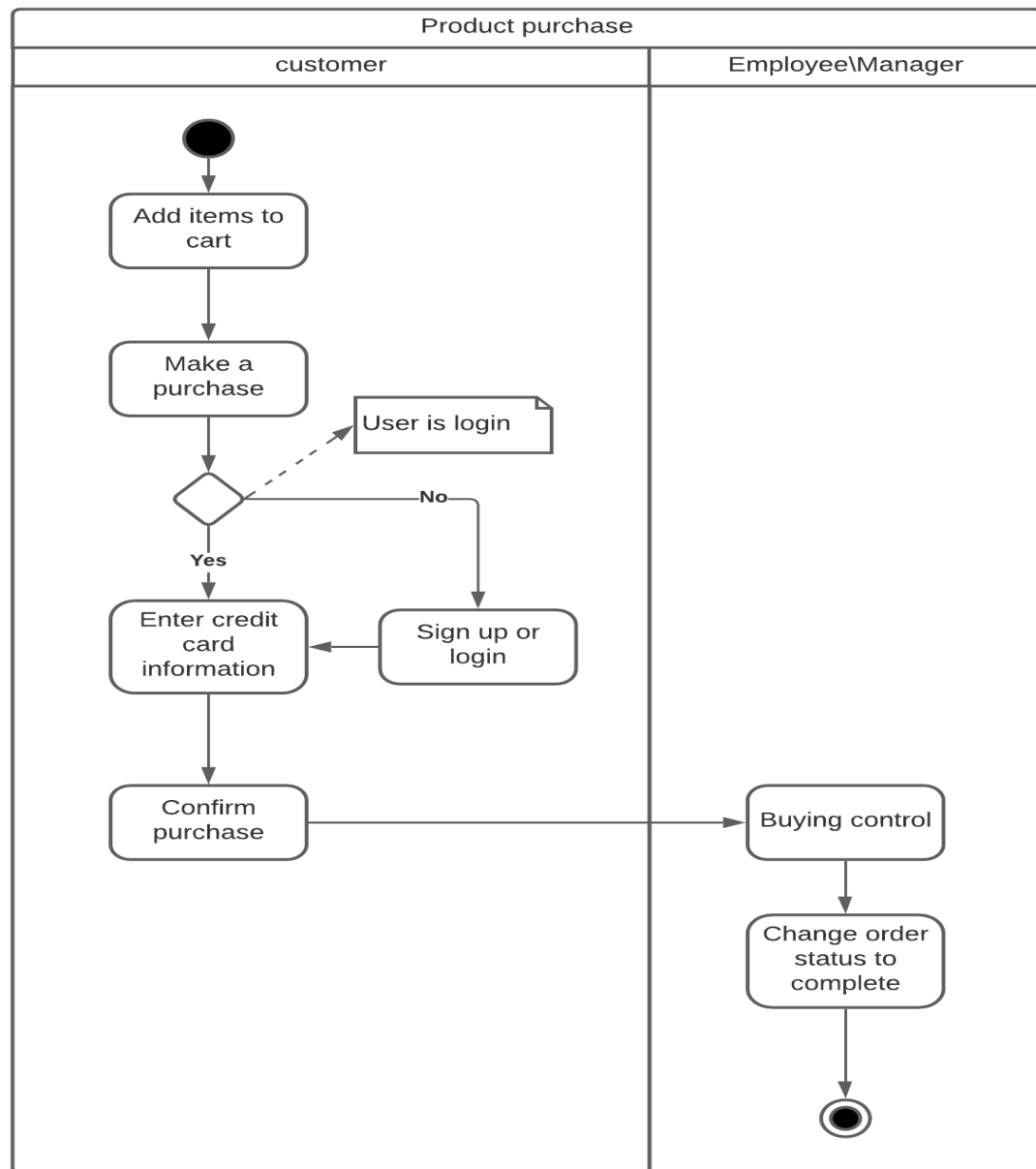
- Manager add new worker only if the details are valid.
- Manager delete existing worker.
- Manager update existing worker only if the details are valid.
- Manager Search existing worker By keyword
- Manager login/logout vie personal ID and password
- Customer login/logout vie personal ID and password

4. Create a connection and purchase

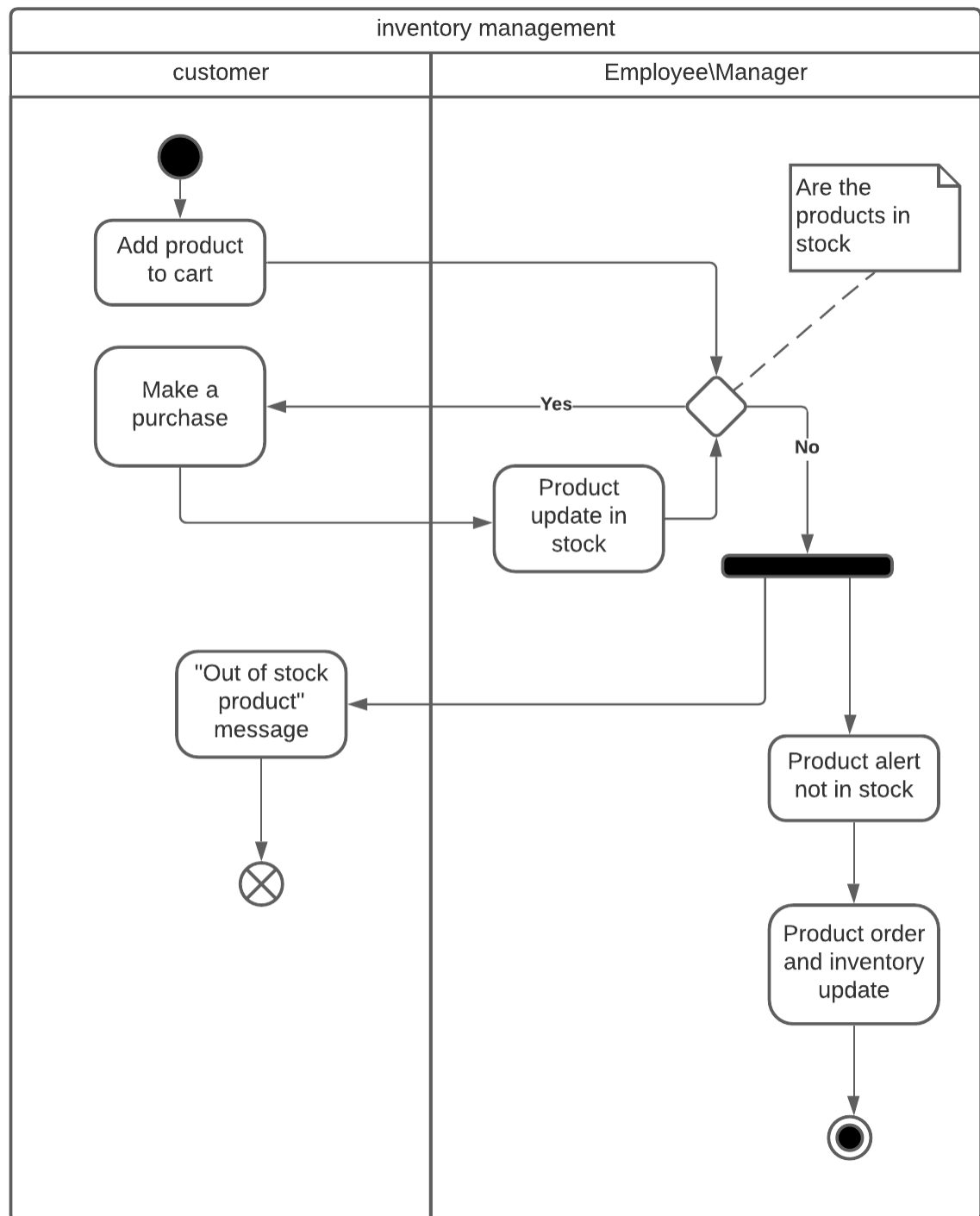


- Customer login If password and email match.
- Customer register only if the details are valid.
- Customer can update his details ,only if the details are valid.
- Customer Search existing product By keyword or category.
- Customer add/delete product from cart.
- Customer making a purchase as a result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

activity diagram

1. Product purchase

2. Inventory management



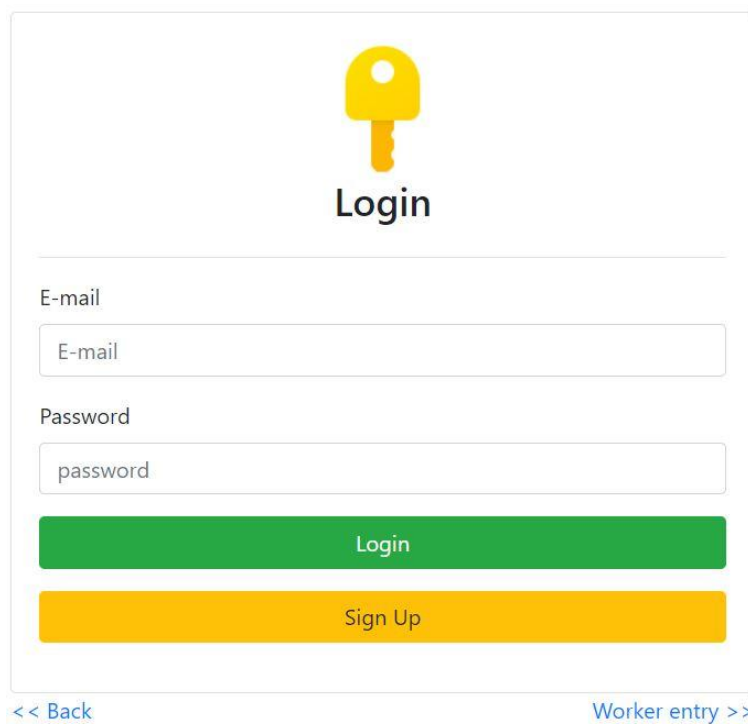
Manual

Administrator's Guide

1. Manager and employee entry and toolbar change



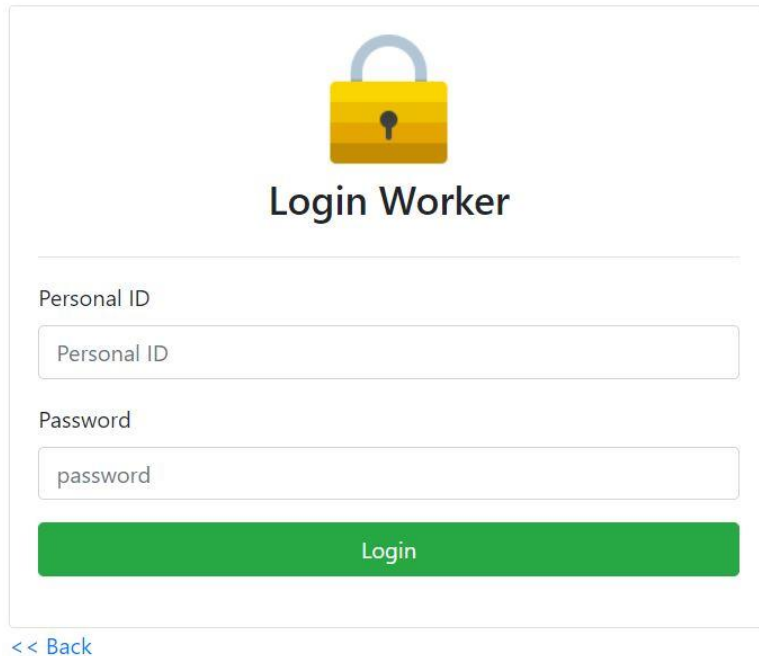
- a. **Login:** Clicking the "Login" button on the toolbar will take you to the Login page

The image shows a login form. At the top center is a yellow key icon. Below it is the word 'Login' in a large, bold font. Underneath is a horizontal line. Below the line are two input fields: the first is labeled 'E-mail' and contains the text 'E-mail'; the second is labeled 'Password' and contains the 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 is a link '<< Back' and at the bottom right is a link 'Worker entry >>'.

<< Back

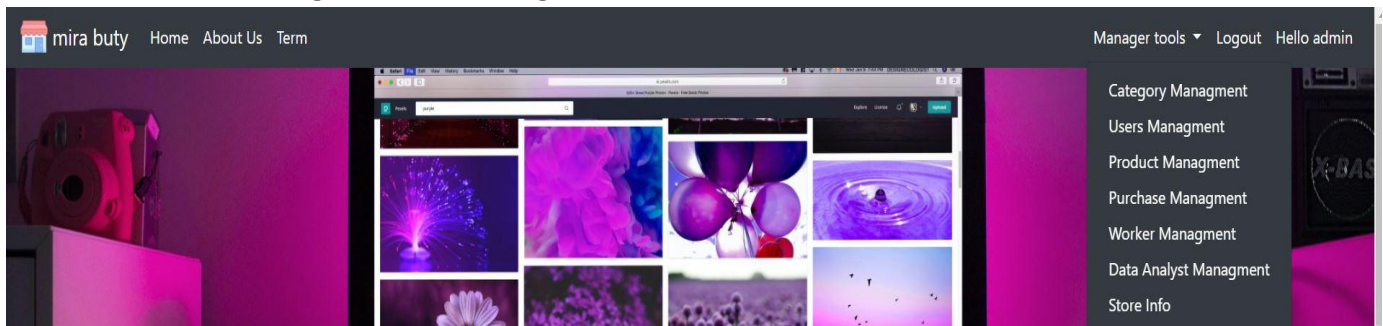
Worker entry >>

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




The image shows a web 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:

| | | Id | First_Name | Last_Name | Email | Password | Phone | Add |
|--------|-----|----|--------------------|-----------|-----------------------|----------|------------|------------------------|
| Select | Del | 41 | itay | cohen | 555@gmail.com | 55 | 321654987 | ascnh alsjoh sao |
| Select | Del | 46 | shely the queen | 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 |  | jhgkjfhfkflf 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

cdcda304-aa81-4878-a888-6504c3060052

02/05/2021

Grand Total

User ID

User Name

10.00

41

itay cohen

Card Number

Card Expiration Date

321654321

2021/3

CVV

Order Complete

321

☐ Incomplete
 ☒ Complete

Show Bill

Update

Purchase List

Show 10 entries
 Search:

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

- a. **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

- b. **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

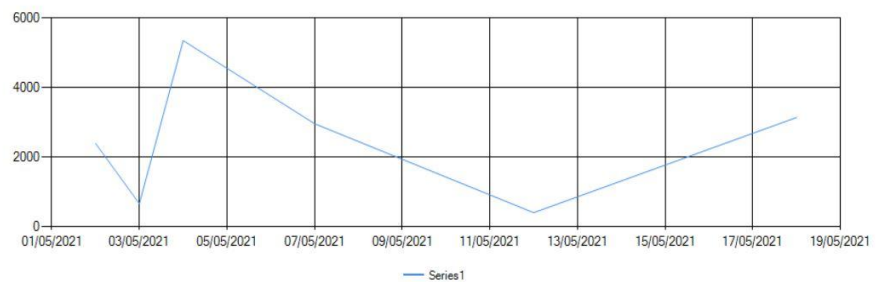
- a. **Show data:** Select start date and end date and click the "Show Data" button

After clicking the button we will get 2 graphs

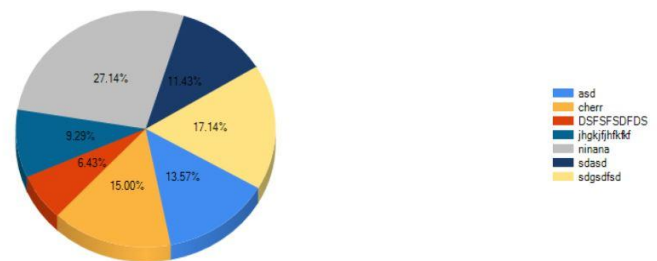
Order graph relative to time

Cake division of percentage of the sale of products

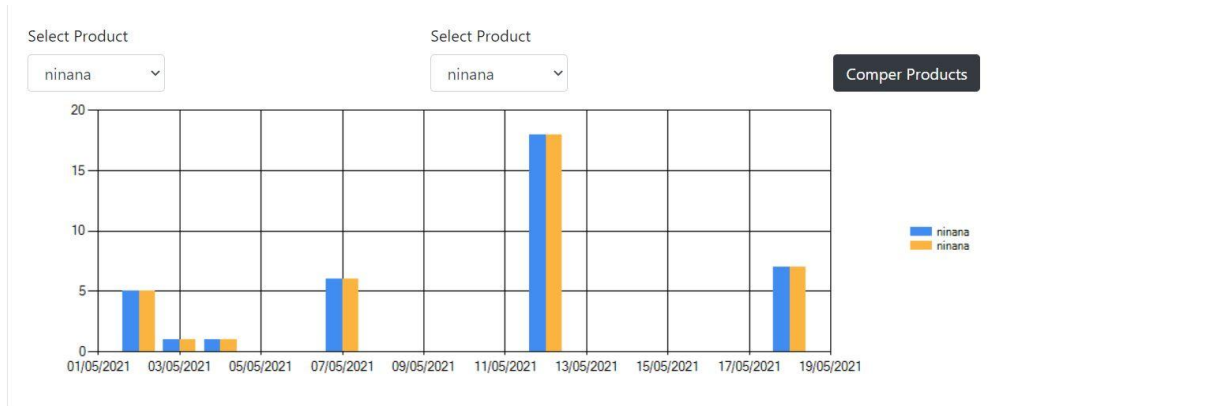
| Total | Date |
|---------|---------------------|
| 2397.00 | 02/05/2021 00:00:00 |
| 663.00 | 03/05/2021 00:00:00 |
| 5357.00 | 04/05/2021 00:00:00 |
| 2965.00 | 07/05/2021 00:00:00 |
| 405.00 | 12/05/2021 00:00:00 |
| 3145.32 | 18/05/2021 00:00:00 |



| ProductName | Total |
|-------------|-------|
| asd | 19 |
| cherr | 21 |
| DSFSFSDFDS | 9 |
| jhgkjfhkfkf | 13 |
| ninana | 38 |

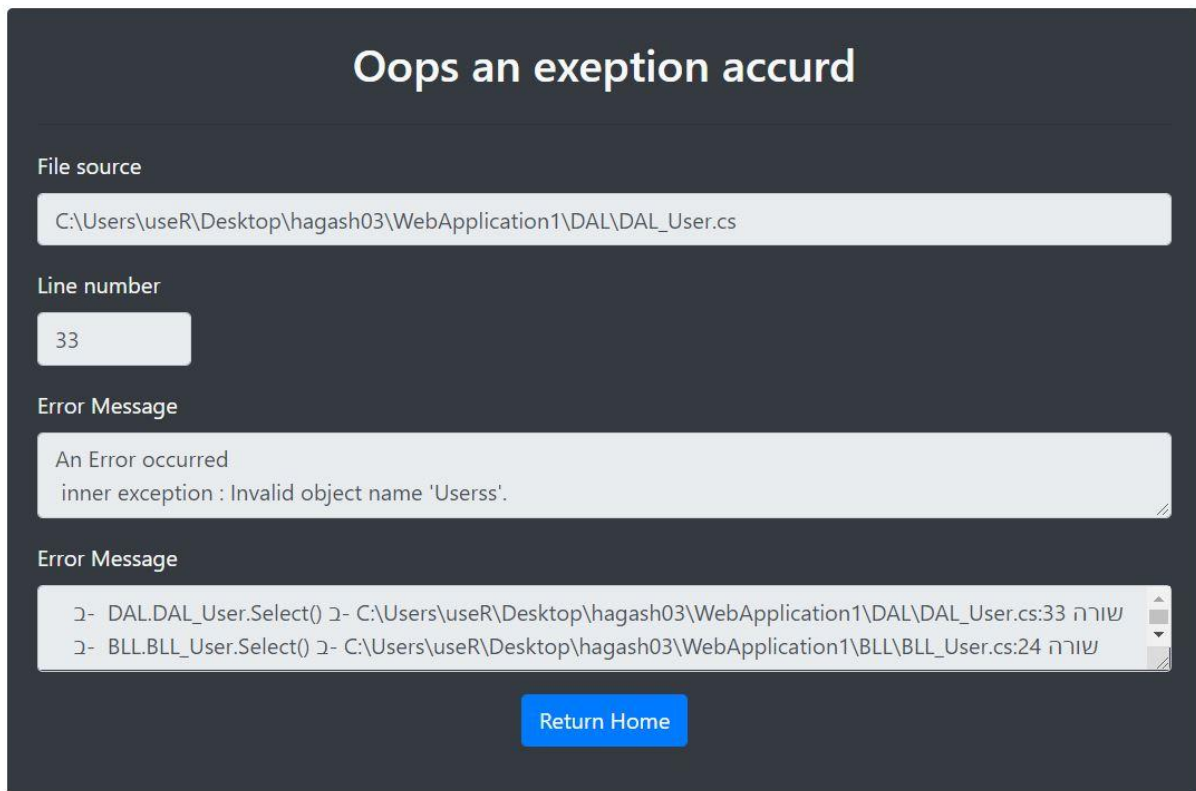


- b. **Comparison between 2 products:** After selecting the 2 dates it will be possible to select 2 products or one for sale comparison on these dates



9. Exception Management

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



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

In this case, contact the programmer with the details

To see all the errors we will use the Elmah extension by adding logError.axd to the main address bar

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 login form centered on a white background. At the top is a large yellow key icon with the word 'Login' in bold black text below it. Below this are two input fields: 'E-mail' with a placeholder 'E-mail' and 'Password' with a placeholder 'password'. At the bottom are two buttons: a green 'Login' button and a yellow 'Sign Up' button. At the very bottom of the form area, there are two links: '<< Back' on the left and 'Worker entry >>' on the right.

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

- a. **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-b7bdbbc4d13e | 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
dskfm.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
cvkjc nvxjkv 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