OOP Project Submission

Stock Management Program

01286131 Object-oriented Programming

Software Engineering Program

Faculty of Engineering, KMITL

By

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Motivation :

Stock management is very important for the success and profitability of any business. It shows the entire cycle of inventory, including which items are in or out. However, traditional manual stock management methods will take a long time or maybe cause an error in some parts, so they will let us face a lot of obstacles, for instance, stockouts, excess inventory, etc. Thus, using the program to handle this aspect of the business instead of using manual techniques brings convenience and accuracy, ensuring precise product tracking and avoiding stock shortages or excesses in the inventory.

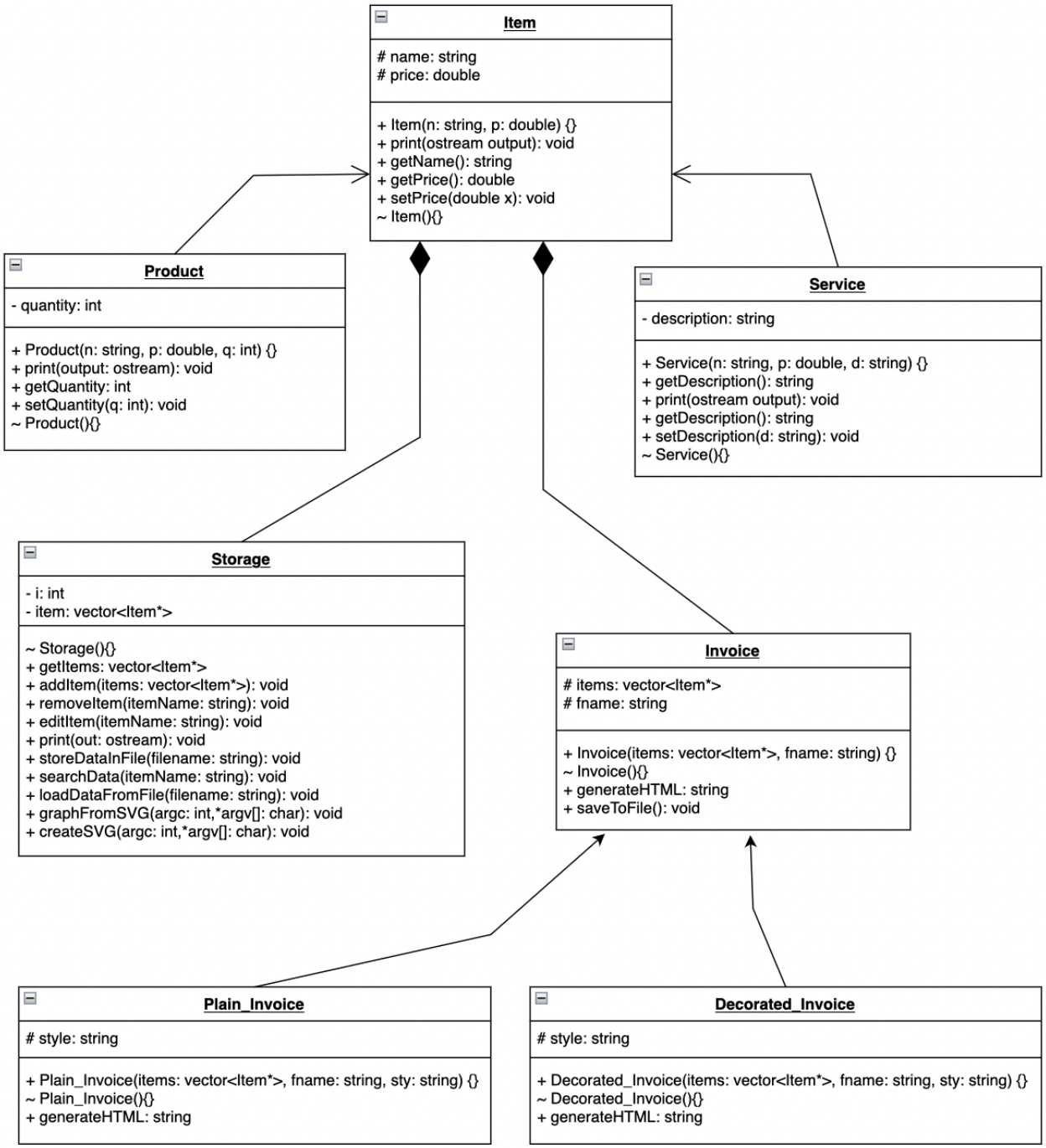
Feature :

1.Add data
2.Remove data
3.Edit data
4.Print invoice; in terminal, in file and in html style
5.Store data in file
6.Load data fromfile
7.Search data
6.Display graph

Obstacle :

Our project is done so well from the first step to the last step; however, we found a little mistake. At first, we would like to save the file as a json file, which we think is easy to manage, but after that, one of my teammates found that if we keep a file as a text file, it will be more suitable for our project than a json file.

Class diagram :



Result :

Our program contains 10 feature to choose

```
1. Add data
2. Remove data
3. Edit data
4. Print
5. Store data in file
6. Search data
7. Load data from file
8. Display as Graph
9. Print Invoice
0. Exit
```

- **The first feature**

  add the data to the program by

  - enter type 1 or 2 to choose between product or service
  - enter item name, price and quantity

```
Enter your choice: 1
1. Product
2. Service
Enter item type: 1
Enter item name: Hat
Enter item price: 20
Enter item quantity: 7

Item successfully added
```

```
Enter your choice: 1
1. Product
2. Service
Enter item type: 2
Enter item name: Spa
Enter item price: 399
Enter item description: foot spa

Service successfully added
```

- **The second feature**

  remove the data from the program by

  - enter a name of the product that we want to remove

```
Enter your choice: 2
Enter item name to remove: Socks

Item not found

Item successfully remove
```

- **The third feature**

  edit the data by

  - enter name of product that we want to edit
  - enter new price and new quantity

```
Enter your choice: 3
Enter item name to edit: Hat
Enter new price: 25
Enter new quantity: 5

Item successfully edited
```

- **The fourth feature**

  print the data to terminal or text file by

  - enter type 1 or 2 to choose between print to terminal or to text file

```
Enter your choice: 4
1. Print to terminal
2. Print to File
Enter your choice: 1

Invoice:

Item                            Type              Price           Quantity        Description           Subtotal
-------------------------------------------------------------------------------------------------------------------
Hat                             Product                $20.00                7                                $140.00
Socks                           Product                $5.00                20                               $100.00
Spa                             Service                                                  foot spa              $399.00
-------------------------------------------------------------------------------------------------------------------
                                Total:                 $639.00
```

((print to terminal))

- if you choose to print the data in the file you have to enter the file name first

```
Enter your choice: 4
1. Print to terminal
2. Print to File
Enter your choice: 2
Enter file name:
pockynynystore
Saved to file pockynynystore.txt
```

pockynynystore.txt

build > pockynynystore.txt

```
1
2   Invoice:
3
4   Item                    Type            Price          Quantity        Description          Subtotal
5   ------------------------------------------------------------------------------------------------------
6   Hat                     Product           $20.00                7                              $140.00
7   Socks                   Product           $5.00                20                             $100.00
8   Spa                     Service                                             foot spa            $399.00
9   ------------------------------------------------------------------------------------------------------
10                          Total:            $639.00
11
12
```

((print to text file))

- **The fifth feature**

  store data in the file by

  - create the file name then all the data will be keep in the text file

```
Enter your choice: 5
Enter filename to store data: invoice_
Data stored in file: invoice_.txt

Saved to invoice_.txt
```

invoice_.txt

build > invoice_.txt

```
1   Product,Hat,25,5
2   Service,Spa,399,foot spa
3
```

- **The sixth feature**

  search that item in the stock by

  - enter item's name

```
Enter your choice: 6
Enter item name to search: Hat

Invoice:

Item                            Type              Price           Quantity        Description           Subtotal
-------------------------------------------------------------------------------------------------------------------------
Hat                           Product                $25.00                5                                  $125.00
```

- **The seventh feature**

  loaded data from the file that we already have by

  - enter type 1 or 2 to choose between clear previous items before open new data or sum up items with new data

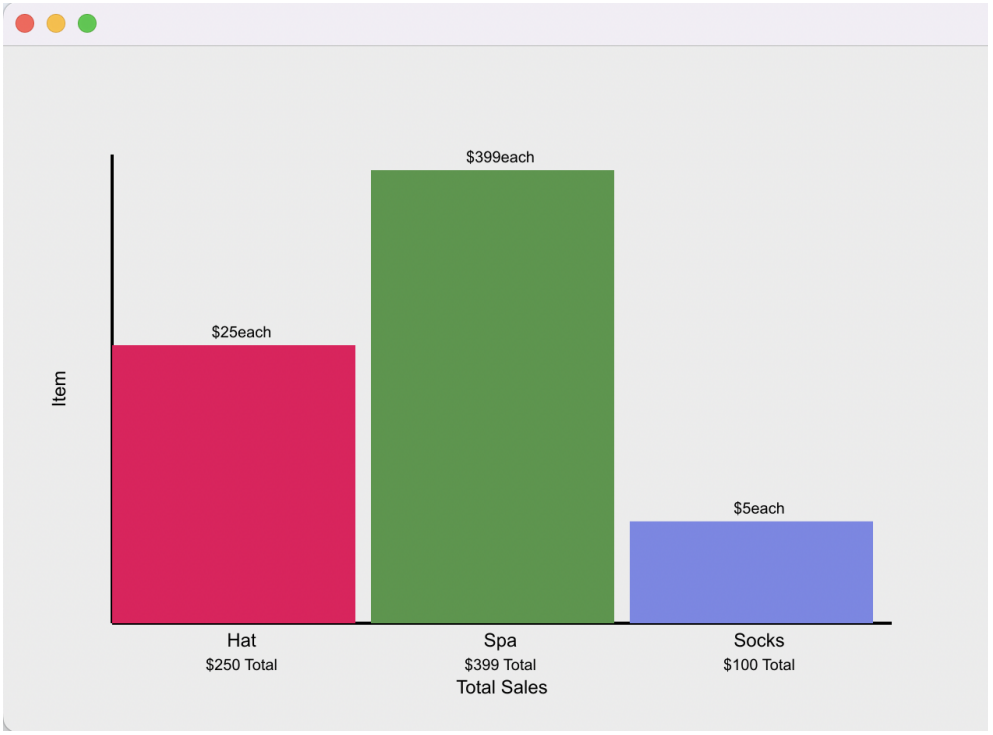
```
Enter your choice: 7
Enter the filename: pockynynystore
1. Clear the previous items before opening new data
2. Sum up items with new data
Enter your choice: 1

Invoice:

Item                            Type              Price           Quantity        Description           Subtotal
-------------------------------------------------------------------------------------------------------------------------
-------------------------------------------------------------------------------------------------------------------------
                               Total:                 $0.00

Data loaded from file: pockynynystore.txt
```

```
Enter your choice: 7
Enter the filename: pockynynystore
1. Clear the previous items before opening new data
2. Sum up items with new data
Enter your choice: 2

Invoice:

Item                            Type              Price           Quantity        Description           Subtotal
-------------------------------------------------------------------------------------------------------------------------
Hat                           Product                $25.00               10                                  $250.00
Spa                           Service                                                 foot spa               $399.00
-------------------------------------------------------------------------------------------------------------------------
                               Total:                $649.00

Data loaded from file: pockynynystore.txt
```

- **The eighth feature**

  display the data as a graph

```
Enter your choice: 8
Graph generated
```



- **The ninth feature**

  display the invoice as a html file by

  - enter html file name
  - choose html themes for your invoice consist of

    0. no style theme

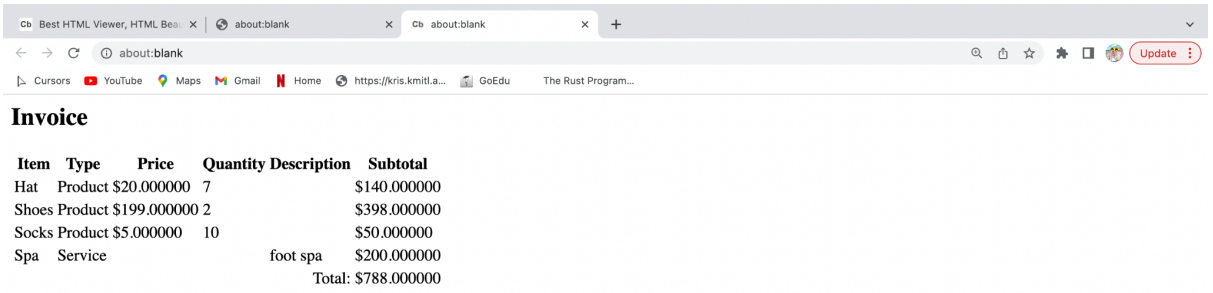
    1.plain theme

    2.dark theme

    3.decorated theme
  - the program will build html file

((no style theme))

```
Enter your choice: 9
Enter filename to store invoice: normal
0. No Style Theme: 1. Plain Theme: 2. Dark Theme: 3. Decorated Theme: 1
Data stored in file: normal.html
```

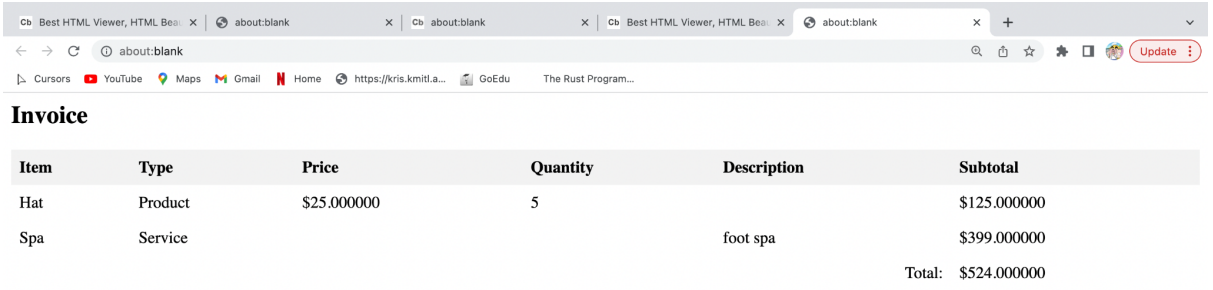


Invoice

Item	Type	Price	Quantity	Description	Subtotal
Hat	Product	$20.000000	7		$140.000000
Shoes	Product	$199.000000	2		$398.000000
Socks	Product	$5.000000	10		$50.000000
Spa	Service			foot spa	$200.000000
				Total:	$788.000000

((plain theme))

```
Enter your choice: 9
Enter filename to store invoice: plain
0. No Style Theme: 1. Plain Theme: 2. Dark Theme: 3. Decorated Theme: 1
Data stored in file: plain.html
```

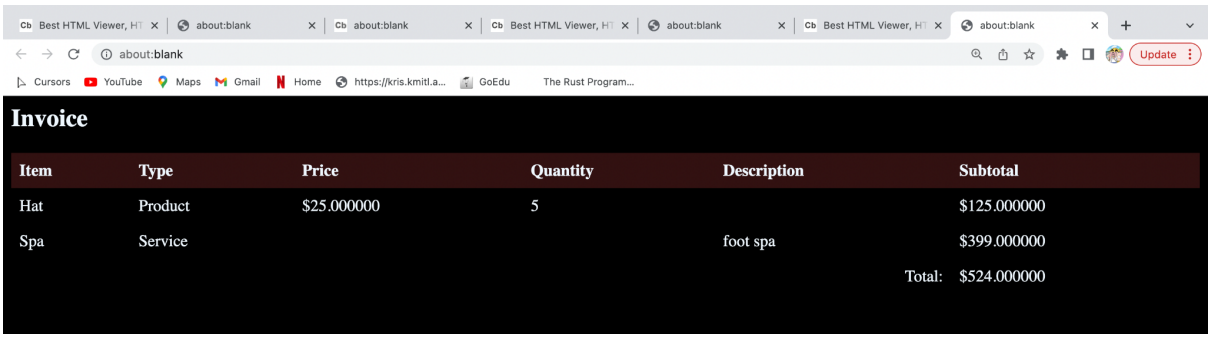


Invoice

Item	Type	Price	Quantity	Description	Subtotal
Hat	Product	$25.000000	5		$125.000000
Spa	Service			foot spa	$399.000000
				Total:	$524.000000

((dark theme))

```
Enter your choice: 9
Enter filename to store invoice: dark
0. No Style Theme: 1. Plain Theme: 2. Dark Theme: 3. Decorated Theme: 2
Data stored in file: dark.html
```

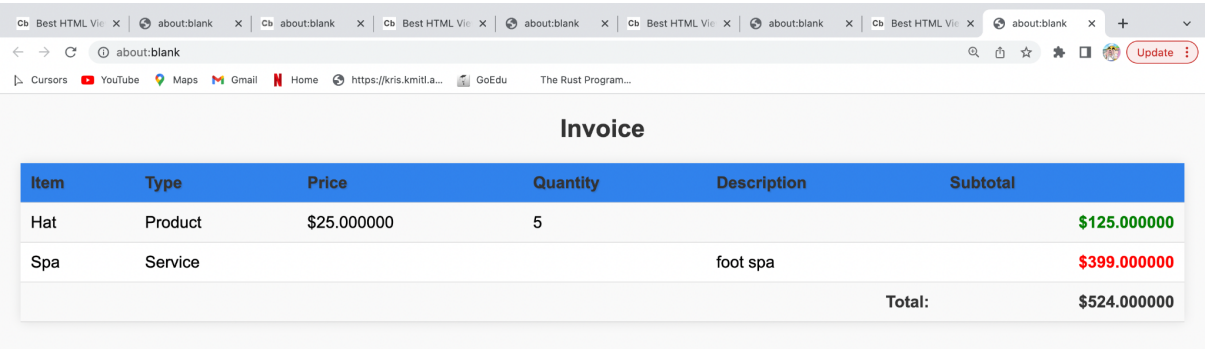


Invoice

Item	Type	Price	Quantity	Description	Subtotal
Hat	Product	$25.000000	5		$125.000000
Spa	Service			foot spa	$399.000000
				Total:	$524.000000

((decorated theme))

```
Enter your choice: 9
Enter filename to store invoice: decorated
0. No Style Theme: 1. Plain Theme: 2. Dark Theme: 3. Decorated Theme: 3
Data stored in file: decorated.html
```



- **The tenth feature**

  use this feature to exit from the program

```
Enter your choice: 0

Exiting program...
```