

Instructions to run the KV Food Delivery Service App:

Before running the application, please take a minute or two to understand the basic menu options first.

To skip this part, please proceed to page 2.

For general questions regarding app usage if instructions found to be unclear; please feel free to reach me at sozoalvin@gmail.com

```
Please select from the following menu
```

```
1. Access Food Items
2. Search and Add Items to Cart
3. Check Merchant Postal Code Validity
4. Check on Current Order Queue
5. Dispatch Order
6. Display Databases
7. End Program
```

1. Access Food items

This menu option shows you all the food options that are available. It's more of an option that allows a user to browse for all available food items imported from the database. No other functions can be found in this menu.

2. Search and Add items to Cart

Accessing this menu opens up the world of possibilities. You can search for an item; and thereafter add them to cart and checkout on orders leading to queues.

3. Check Merchant Postal Code Validity

Use this feature to check if a certain merchant is registered at any postal code

4. Check on Current Order Queue

This allows the user to view the current queue. It shows the list of queues etc.

5. Dispatch Order

This allows a Queue to be removed from the system, emulating a real scenario where a delivery partner/ rider has already agreed to commit in fulfilling the order.

6. Display Databases

Accessing this menu allows you to view two types of databases. You will be able to view databases that are organized by transaction IDs and

usernames. You will also have an option of exporting them to json files.

7. End Program

Start Using the Program

1. To start the program, please `cd` into the right directory where you have unzipped the files.

```
go run main.go database.go databaseMaps.go mainFunctions.go  
messageTemplates.go queueManagement.go rawData.go
```

2. Enter the above code into your terminal and press Enter

```
System Message : Mandatory - Food List Data Generated  
System Message : Food List Map Data Completed  
System Message : Queues Loaded into System  
System Message : All UserName Database Updated  
System Message : Food List Search Auto Complete Database Updated  
System Message : System is Ready 2021-03-21 18:08:02  
  
=====
```

Welcome to Kay Kafe's Backend Ordering System!

```
=====
```

Please enter username to proceed

3. If all the data is initialized correctly, you should observe **6** different system messages and the welcome message.
4. You can log in using the username **admin**. There is no password verification that has been implemented in this prototype app.

```
Please enter username to proceed  
admin  
Your username: admin has been validated. Please start ordering!  
Please let us know if you have any questions with the ordering system. - Kay Kafe  
  
Please select from the following menu  
1. Access Food Items  
2. Search and Add Items to Cart
```

5. Menu 1 will give you a list of food items for you to browse. You may wish to go into Menu 2 directly

6. Type 2, and press Enter and you'll be brought to a search screen. You can search for anything you like. But for the purpose of this guide. We'll be searching for c. c used here, is a small case c.

```
Please Search for an Item(lower case alphabets, including numbers 0-9)
c

Please Indicate the Number of Similar Results You Want to Display
10

Here are the search results:
1. cendol - food republic - ang mo kio st 52
2. char kway teow - tampnes char kway teow - ang mo kio st 52
3. chicken porridge - auntie's porridge - ang mo kio st 52
4. chicken rice - huat ah chicken - ang mo kio st 52
5. chilli crab - chinatown seafood limited - ang mo kio st 52
6. chwee kueh - kuehhhh best - ang mo kio st 52
7. claypot rice - ah ming claypot shop - ang mo kio st 52
8. curry chicken noodles - kt original - ang mo kio st 52
9. curry puff - old chang kee - ang mo kio st 52

Please Indicate the item you would like to place an order for:
█
```

7. After typing the first alphabet, you can press enter and the program will continue by asking you for the number of search results that you want.
8. Please proceed by choosing the number of search results you wish to display. We use 10 in the example above. In a big database, it will be useful to limit the number of queries to prevent overloading the system.
9. Choose your favorite dish. In this case, we really like Singapore's famous dish - chilli crab so we're going to input option 5.

```
Please Indicate the item you would like to place an order for:
5

Please Indicate the quantity of the item you would like to place an order for:
2

=====

This Order Will be Tagged to User: admin. Please exit program to relogin if your login ID is
incorrect

Your Option: chilli crab - chinatown seafood limited - ang mo kio st 52 Has Been Selected

The Name of the Selected Food Item is: chilli crab

The Total Quantity Ordered: 2

The Total Cost for this is: $7.00

Please select save shopping cart if you want to checkout the above items.
```

10. Along with that, we're also going to tell the program that we want to order 2 of it.
11. If the inputs are correct, you should be shown a screen with regards to your selected dish name, it's address, the total quantity ordered as well as the total price.

```
Please select save shopping cart if you want to checkout the above items.

=====
Please choose from the following options

1. Search for new item to add to cart
2. Update Shopping Cart
3. Clear Shopping Cart
4. Checkout Shopping Cart
5. Return to Previous Menu
█
```

12. Please select 2 to update your shopping cart. This emulates the Add to Cart Button in an ecommerce website. In other words, add to cart functionality is not automatic. Not updating the cart means whatever that is selected will be lost once a new search is conducted.
13. You may continue adding more items into your cart by selecting option 1 to search for items again. Otherwise, please feel free to checkout (option 4) the items. If you think you've made a mistake, you can also clear the cart by selecting option 3.

14. Other words you can try searching for include the letters m, s, r, and h.
15. Once you're ready, you can checkout with option 4. If you did log in with the username 'admin', you will see the following prompt regarding service recovery

```
=====
                        Checkout Confirmed
=====

Hi user: admin,! You are authorised as a customer service officer!

Please enter priority number more than 0 if an order is meant for service recovery
Enter 0 for default if is not for service recovery
█
```

16. If the order is meant for a service recovery effort, please enter any number above 8.
9 would be a good choice. Hit Enter and this order will be processed with a proper queue number generated in the system

The system is preinitiated with dummy data that has a queue-ed item with highest priority value at 7. Putting an order with priority value 8 will push it right to the top; as opposed to being right at the back like a regular queue structure.

17. You can view the current queue by selecting option 4

```
=====

Hi user: admin,! You are authorised as a customer service officer!

Please enter priority number more than 0 if an order is meant for service recovery
Enter 0 for default if is not for service recovery
9

Order successfully processed. What would you like to do next?

Please select from the following menu

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█
```

```

Authorized Priority Queue Number: 9 tagged to queue.

Order System Queue ID:          OS501KV
Order tagged to username:       admin

=====

Authorized Priority Queue Number: 7 tagged to queue.

1.Associated Merchant Transaction id:      MC8912KV
2.Associated Merchant Transaction id:      MC9123KV
Order System Queue ID:                    OS123KV
Order tagged to username:                  testadmin

=====

Authorized Priority Queue Number: 5 tagged to queue.

1.Associated Merchant Transaction id:      MC3456KV
2.Associated Merchant Transaction id:      MC7890KV

```

18. By regular Queue conventions. The order should have been added all the way to the bottom but because the priority was set to 9, and 9 is more than 7 (7 refers to system order OS123KV) , this order that you just created will be the first to be dispatched.

19. To ensure that the priority queue is really working, you can repeat the process of searching for something, updating your cart and checking out again with priority 0 as index. If you do that, you can find that your second checkout order, has created a queue right at the bottom of the existing queue list

```

Authorized Priority Queue Number: 5 tagged to queue.

1.Associated Merchant Transaction id:      MC3456KV
2.Associated Merchant Transaction id:      MC7890KV
Order System Queue ID:                    OS1201KV
Order tagged to username:                  testadmin

=====

Authorized Priority Queue Number: 3 tagged to queue.

1.Associated Merchant Transaction id:      MC12345KV
2.Associated Merchant Transaction id:      MC2345KV
Order System Queue ID:                    OS120KV
Order tagged to username:                  testadmin

=====

Authorized Priority Queue Number: 0 tagged to queue.

1.Associated Merchant Transaction id:      MC1KV
Order System Queue ID:                    OS502KV
Order tagged to username:                  admin

=====

```

20. Now that the priority queue is working, we can emulate a queue being removed as soon as a delivery rider or partner is able to commit to the food delivery. We can do that by using option 5

```
=====
Please select from the following menu

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7. End Program
5
```

21. Once an order has been dispatched, the queue that has the highest priority index in line will be removed automatically. We can verify that, that is true by going back to option 4 to check

```
Order Successfully dispatched. Please check current order queue again to check latest queues.

Please select from the following menu

1. Access Food Items
2. Search and Add Items to Cart
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```

22. Once successfully removed; the order (queue) that we created with priority 8 or 9 (depending on what you chose) will disappear

```

Authorized Priority Queue Number: 7 tagged to queue.

Associated Merchant Transaction id 1:      MC8912KV
Associated Merchant Transaction id 2:      MC9123KV
Order System Queue ID:                   OS123KV
Order tagged to username:                  testadmin

=====

Authorized Priority Queue Number: 5 tagged to queue.

1.Associated Merchant Transaction id:      MC3456KV
2.Associated Merchant Transaction id:      MC7890KV
Order System Queue ID:                   OS1201KV
Order tagged to username:                  testadmin

=====

Authorized Priority Queue Number: 3 tagged to queue.

1.Associated Merchant Transaction id:      MC12345KV
2.Associated Merchant Transaction id:      MC2345KV
Order System Queue ID:                   OS120KV
Order tagged to username:                  testadmin

```

23. You can also access the orders that have been made on the application from menu option number 6. From this option, you can find ways to view and even export to json files.

```

=====

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6
Display and Export Databases
Select to see all data of merchants using transaction ID

=====
1. View all data related to checkout transaction ID(s)
2. Export all Data regarding Transaction ID(s)
3. View all Data related to usernames
4. Export all Data related to usernames

```

24. Last but not least, the application can also be used to check on postal code validity of a merchant. You try it out by going to option 3 and typing the following value: 520393


```
Please select from the following menu

1. Access Food Items
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7. End Program
3

Enter Postal Code to check

520393
We have merchants registered at this postal code.
```

25. Feel free to check for other postal codes. This feature has been created for the sales team; primarily for them to make a quick look up on a certain postal code if there are already existing merchants registered with us.
26. Last but not least, you can test out the panic recovery by searching for any characters that are not small case alphabets. For example, an uppercase character of C instead of c , is guaranteed to cause a panic. You can find out more about how the codes are implemented in the design document in the [Error, Panic and Recovery Handling](#) section found on page 14