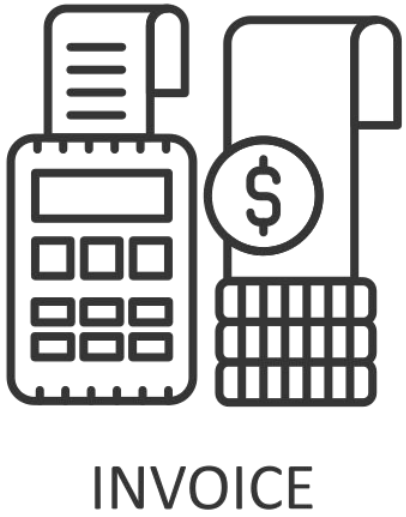
Invoice Generator /Restaurant Billing system in C



Creator/presenter

Sajan Sahikarmi
Class:-(BCT-I/I)
Roll no:-KCE080BCT035

Github repository link:-

https://github.com/sazisblu

CONTENTS

The contents of this presentation:-

1.Introduction(What is this project?)

- This project comprises of a versatile billing system for a restaurant(named Saz’s diner) which streamlines the processes of bill creation, storage, and retrieval. With Features like quick bill generation, secure storage, and a user-friendly interface , this is very effective in .
- Implemented in C with file handling for scalability and adaptability across diverse businesses, this system offers potential of being applicable in variety of businesses other than restaurants alone.
- The users of this system are cashiers and bill machine operators providing them a very user friendly environment for effortless and fast bill creation along with efficient sorting and retrieval in just few button presses.

2. Features of this system

- Effortless Bill Creation:Enables quick and easy generation of bills with minimal input.(Numbers as decision inputs)
- User-Friendly Interface:Provides an intuitive interface for smooth and hassle-free operation.(uses colours and alignments of text to provide a visually appealing look too.)
- Secure Storage and Retrieval:Safely stores bills and allows for quick retrieval when needed.(With file handling)
- Adaptability and Customization:Flexible design allows customization to suit specific business needs.(no restriction in the size of data that file is able to store)

3. Algorithm and Flowchart

STEPS FOR ALGORITHM:-

1. Define structures for menu items and bill items.

2. Initialize menu with food items and prices.

3. Display main dashboard with options to generate, search, or show invoices, or exit.

a. If 'Generate invoice' selected:

i. Prompt for customer name and order details.

ii. Display menu for item selection.

iii. Calculate subtotal, tax, and total.

iv. Ask if the bill should be saved.

v. If yes, write bill details to file.

3. Algorithm and Flowchart(cont…)

b. If 'Search invoice' selected:
    i. Prompt for customer name.
    ii. Search for matching bill in the file.
    iii. Display bill details if found.

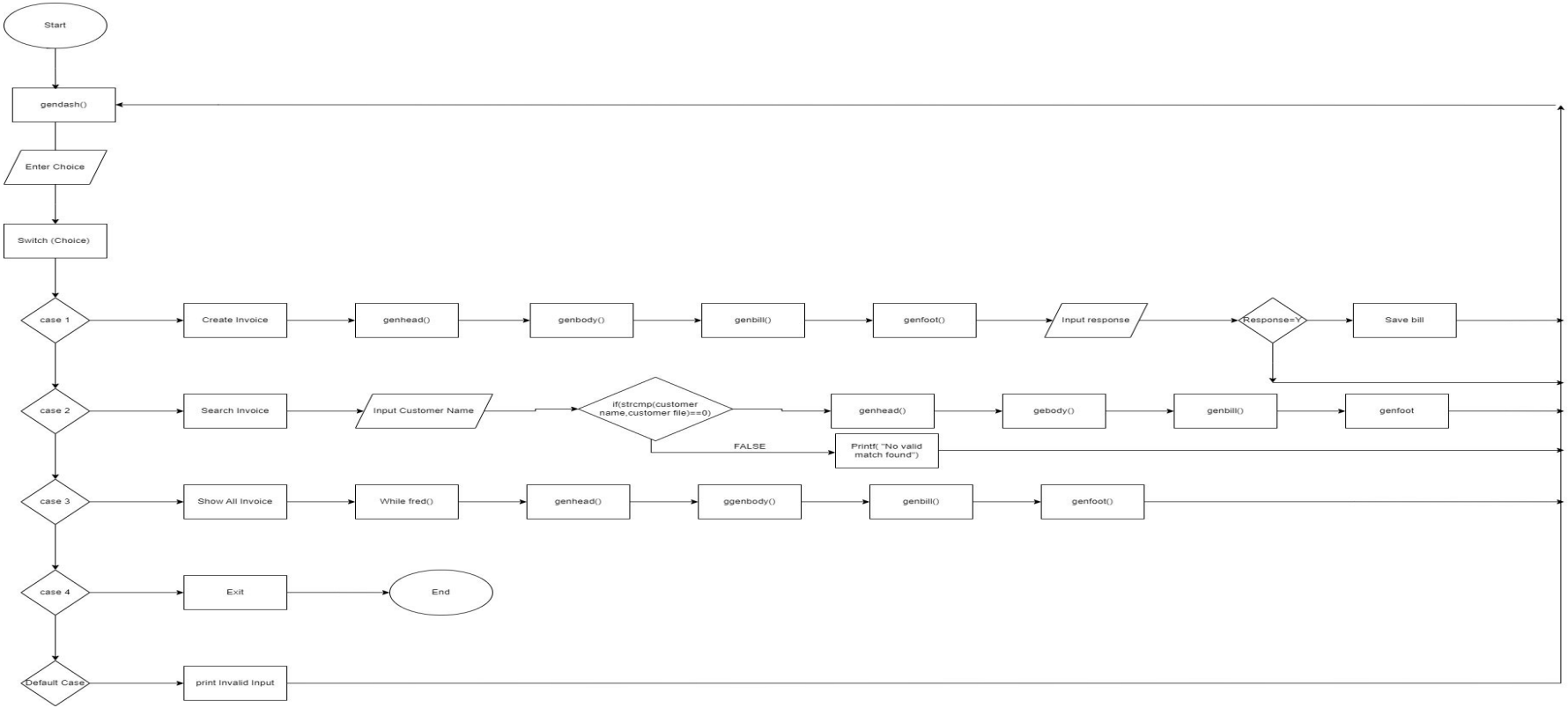
c. If 'Show all invoices' selected:
    i. Display all saved invoices from the file.

d. If 'Exit' selected, terminate the program.

4. Implement functions for generating, searching, and displaying invoices.

5. Implement file handling for saving and retrieving bills.

3.Algorithm & Flowchart(cont…)



4. Explanation of Code

1. Structures & Initialization: Define structures for menu and bill items, initializing the menu with items and prices.

2. User Interface Functions: Functions like genhead, genbody, genbill, genfoot, and genmenu manage different parts of bill generation and display.

3. Control Flow & Dashboard: Program flow is controlled by a dashboard generated by gendash. Users choose actions such as generating invoices, searching, or showing all invoices. A loop labeled start allows continuous operation without relaunching, using goto to return to the dashboard after each action.

4. Explanation of Code(cont…)

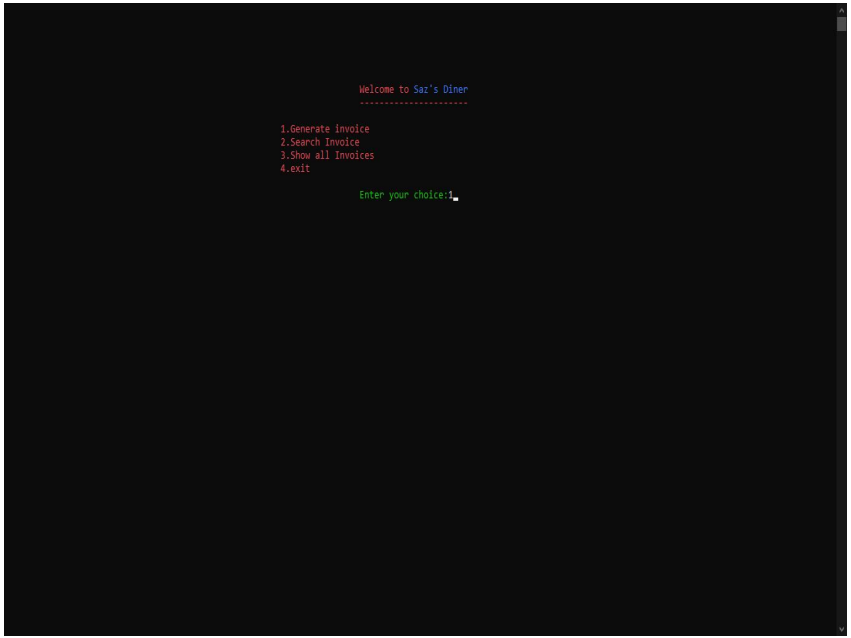
4. Order Handling: getorder function manages order entry, prompting users for details like customer name and order size, and calculates costs based on inputs.

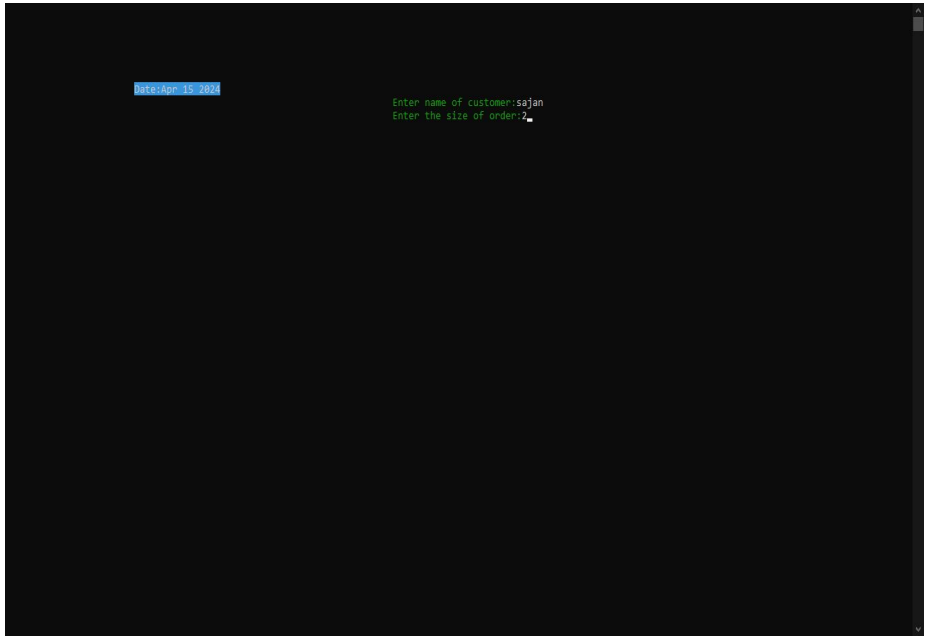
5. File Operations: File handling enables writing and reading of bill details, saving bills as structures in files for later retrieval.

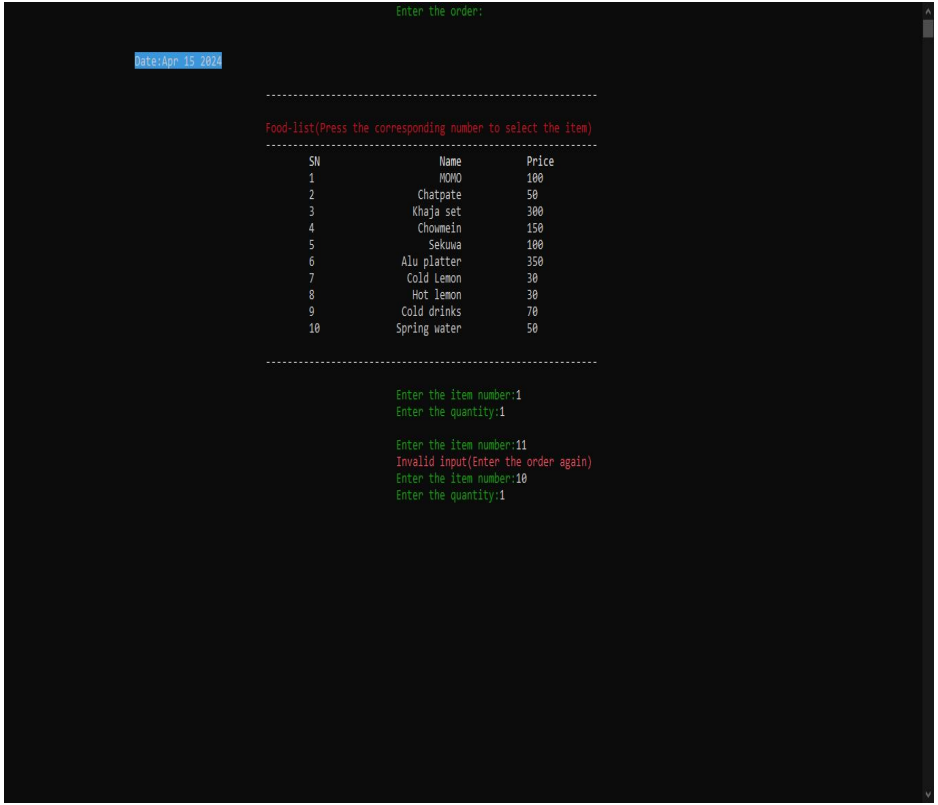
6. Overall Design: The design offers a clear and efficient billing process for Saz's Diner, enhancing user experience and workflow efficiency with streamlined interface and functionality.

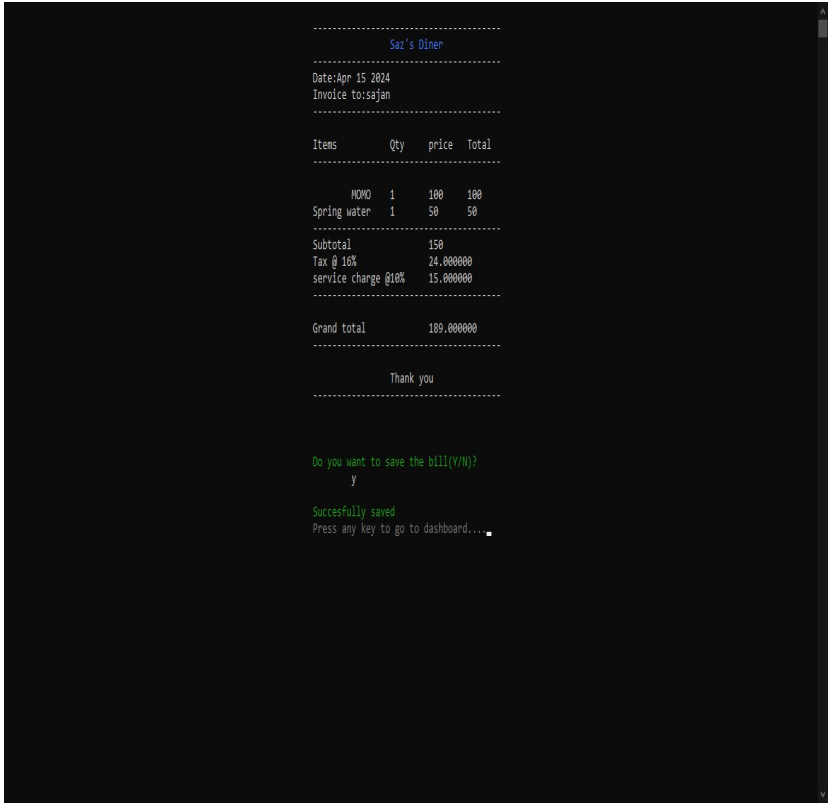
Note:- For Alignment of the output in the terminal screen,’\t’ and ’\n’ were used and for the color of font ANSI escape sequence was used i.e ”\033[colorcodem”

5. Snapshots and demonstration

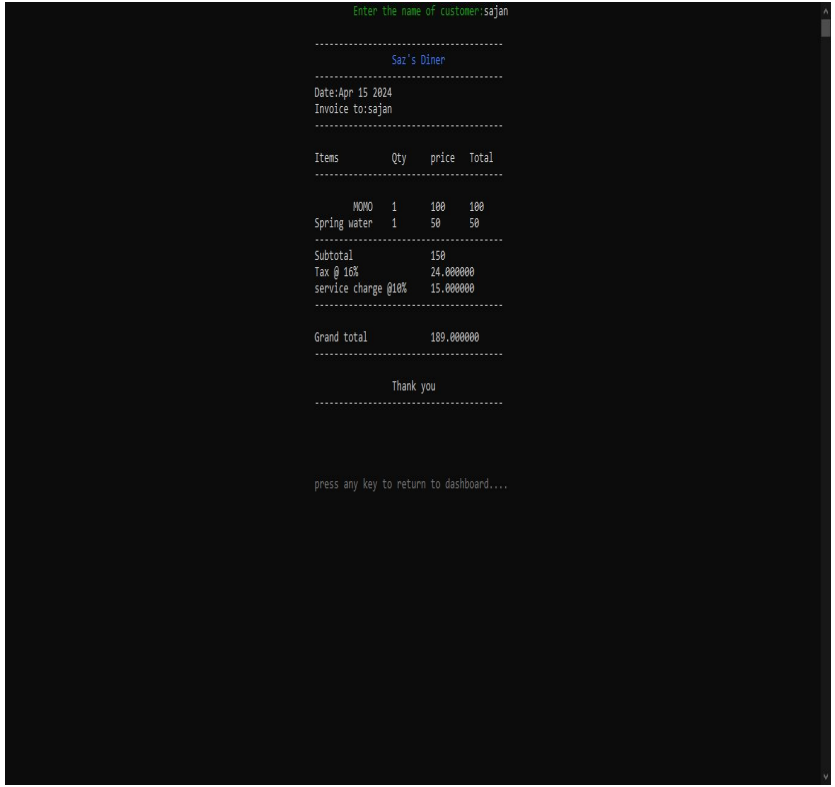





Enter the order:
Date:Apr 15 2024
Food-list(Press the corresponding number to select the item)
SN Name Price
1 MOMO 100
2 Chatpate 50
3 Khaja set 300
4 Chowmein 150
5 Sekuwa 100
6 Alu platter 350
7 Cold Lemon 30
8 Hot lemon 30
9 Cold drinks 70
10 Spring water 50
Enter the item number:1
Enter the quantity:1
Enter the item number:11
Invalid input(Enter the order again)
Enter the item number:10
Enter the quantity:1


Saz's Diner
Date:Apr 15 2024
Invoice to:sajan
Items Qty price Total
MOMO 1 100 100
Spring water 1 50 50
Subtotal 150
Tax @ 16% 24.000000
service charge @10% 15.000000
Grand total 189.000000
Thank you
Do you want to save the bill(Y/N)?
y
Succesfully saved
Press any key to go to dashboard....


Welcome to Saz's Diner
1.Generate invoice
2.Search Invoice
3.Show all Invoices
4.exit
Enter your choice:2


Enter the name of customer:sajan
Saz's Diner
Date:Apr 15 2024
Invoice to:sajan
Items Qty price Total
MOMO 1 100 100
Spring water 1 50 50
Subtotal 150
Tax @ 16% 24.000000
service charge @10% 15.000000
Grand total 189.000000
Thank you
press any key to return to dashboard....

```
                Welcome to Saz's Diner
                ----------------------

1.Generate invoice
2.Search Invoice
3.Show all Invoices
4.exit

                Enter your choice:4
```

```
ADIOS :)
```

Demonstration of Program

...

6.TOOLS USED

Following tools were used in creation of this program:-

1. VS Code
2. GCC(GNU C compiler)
3. Chat GPT
4. Youtube


TO NICE HUMAN,
THANK YOU