

PES UNIVERSITY

(Established under Karnataka Act No. 16 of 2013) 100 Ft. Road, BSK III Stage, Bengaluru – 560 085

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Course Title: Problem Solving with C Laboratory

Course code: UE19CS152

Semester: II sem	Section:
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PROJECT REPORT

Problem Statement

Pos Simulator using command line interface

Description

This is supposed to simulate all the activities that occur at a POS terminal in a superstore. The different activities are:

- i) Scanning the code of all the items bought by the customer (This will identify the productand get the price)
- ii) Generate the bill of all the items bought by the customer.
- iii) The project has to store data about all the products being sold
 (Name of the product, price, any discounts being offered, etc No required, students should use flat files)
- iv) Once the bill is generated, an option to pay (simulate cash payment Addition, Subtraction, etc)
- v) The bill should be shown up in a format which displays the items bought, quantity, price per item and the total.
- vi) There could be items which are sold as a pack Buy one get one free, or a number of items packed into one bunch and priced as one single item.

C-concepts used

- 1. Structures
- 2. Arrays
- 3. File handing
- 4. loops and counting

Learning Outcome

- 1. We learnt how to strategically develop a layout using functions to minimize lines of code, i.e reuse the function calls for different purposes
- 2. How to maintain flow of control in our program
- 3. How critical is type-casting as at the time of displaying as printf doesn't type cast on it's own .
- 4. File Handling with structures
- 5. Date, TIME macros
- 6.Practical and runtime Error handling ,eg if same barcode is added for 2 products Customer cannot pay an amount less than the bill, while edit/deleting item if barcode doesn't exist, Deleting content such as a bill file to get ready for

Output Screenshots

Main Menu

```
POS SYSTEM

1.Setup
2.Display Item list
3.Bill
4.Exit

Enter option:
```

Setup Menu

1.change shop option

```
Setup

1.Change Shop Name
2.Add Item
3.Edit Item
4.Delete Item
5.Main Menu

Enter option:1

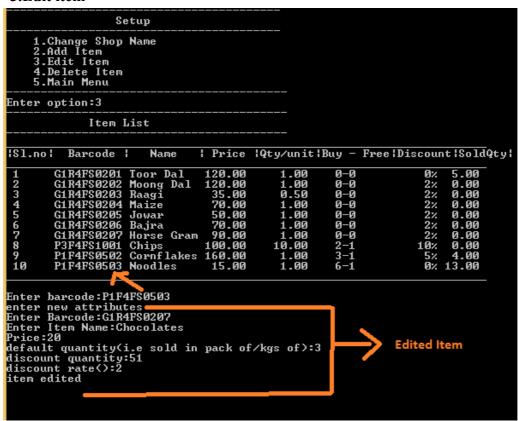
Enter shop name:G Enterprises
```

2.Add Item

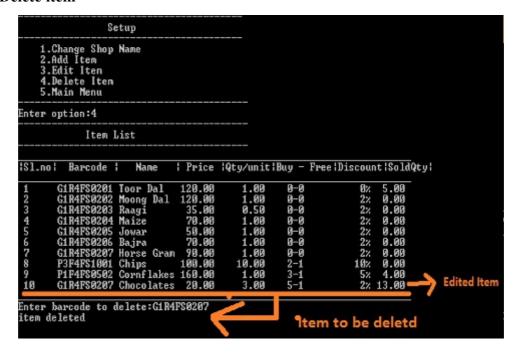
Item List Sl.no! Barcode Name Price Qty/unit Buy - Free Discount Sold G1R4FS0201 Toor Dal 120.00 1.00 0-0 0% 2.00 G1R4FS0202 Moong Dal 120.00 1.00 0-0 2% 0.00 G1R4FS0203 Raagi 35.00 0.50 0-0 2% 0.00 G1R4FS0204 Maize 70.00 1.00 0-0 2% 0.00 G1R4FS0205 Jowar 50.00 1.00 0-0 2% 0.00 G1R4FS0206 Bajra 70.00 1.00 0-0 2% 0.00	Se	tup					
Item List Sl.no: Barcode: Name: Price: Qty/unit: Buy - Free: Discount: Sold G1R4FS0201 Toor Dal 120.00 1.00 0-0 0% 2.00 G1R4FS0202 Moong Dal 120.00 1.00 0-0 2% 0.00 G1R4FS0203 Raagi 35.00 0.50 0-0 2% 0.00 G1R4FS0204 Maize 70.00 1.00 0-0 2% 0.00 G1R4FS0205 Jowar 50.00 1.00 0-0 2% 0.00 G1R4FS0206 Bajra 70.00 1.00 0-0 2% 0.00	2.Add İtem 3.Edit Item 4.Delete Item	Name					
Item List I.no: Barcode: Name: Price: Qty/unit: Buy - Free: Discount: Sold G1R4FS0201 Toor Dal 120.00 1.00 0-0 0% 2.00 G1R4FS0202 Moong Dal 120.00 1.00 0-0 2% 0.00 G1R4FS0203 Raagi 35.00 0.50 0-0 2% 0.00 G1R4FS0204 Maize 70.00 1.00 0-0 2% 0.00 G1R4FS0205 Jowar 50.00 1.00 0-0 2% 0.00 G1R4FS0206 Bajra 70.00 1.00 0-0 2% 0.00	ter option:2						
G1R4FS0201 Toor Dal 120.00 1.00 0-0 0% 2.00 G1R4FS0202 Moong Dal 120.00 1.00 0-0 2% 0.00 G1R4FS0203 Raagi 35.00 0.50 0-0 2% 0.00 G1R4FS0204 Maize 70.00 1.00 0-0 2% 0.00 G1R4FS0205 Jowar 50.00 1.00 0-0 2% 0.00 G1R4FS0206 Bajra 70.00 1.00 0-0 2% 0.00	Item L						
G1R4FS0201 Toor Dal 120.00 1.00 0-0 0% 2.00 2 G1R4FS0202 Moong Dal 120.00 1.00 0-0 2% 0.00 G1R4FS0203 Raagi 35.00 0.50 0-0 2% 0.00 G1R4FS0204 Maize 70.00 1.00 0-0 2% 0.00 G1R4FS0205 Jowar 50.00 1.00 0-0 2% 0.00 G1R4FS0206 Bajra 70.00 1.00 0-0 2% 0.00							
C G1R4FS0202 Moong Dal 120.00 1.00 0-0 2% 0.00 G1R4FS0203 Raagi 35.00 0.50 0-0 2% 0.00 G1R4FS0204 Maize 70.00 1.00 0-0 2% 0.00 G1R4FS0205 Jowar 50.00 1.00 0-0 2% 0.00 G1R4FS0206 Bajra 70.00 1.00 0-0 2% 0.00	1.no! Barcode !	Name	Price	Qty∕unit	¦Buy −	Free Discoun	t Sold
	G1R4FS0202 G1R4FS0203 G1R4FS0204 G1R4FS0205	Moong Dal Raagi Maize	120.00 35.00 70.00	1.00 0.50 1.00	0-0 0-0 0-0	2x 2x 2x	0.00 0.00 0.00
7 G1R4FS0207 Horse Gram 90.00 1.00 0-0 2% 0.00 8 P3F4FS1001 Chips 100.00 10.00 2-1 10% 0.00 9 P1F4FS0502 Cornflakes 160.00 1.00 3-1 5% 4.00	G1R4FS0207 P3F4FS1001	Horse Gram Chips	90.00 100.00	1.00 10.00	0-0 2-1	2× 10×	0.00 0.00

Error handled in add item menu

3.Edit item



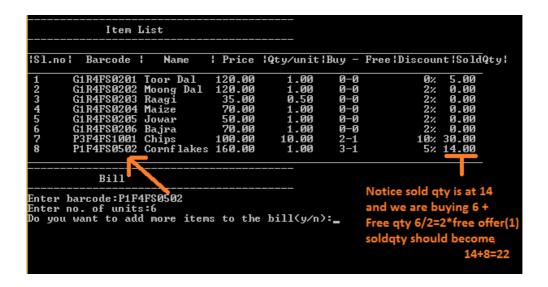
4.Delete item



Item List option (main menu)

POS SYSTEM 1.Setup 2.Display Item list 3.Bill 4.Exit					
Enter option:2		====			
Item List					
Sl.no Barcode Name	Price	¦Qty∕unit¦	Buy -	Free Discoun	t¦SoldQty¦
1 G1R4FS0201 Toor Dal	120.00	1.00	0-0	0%	5.00
		1.00	0-0	2%	0.00
	35.00	0.50	ŏ-ŏ	2%	0.00
4 G1R4FS0204 Maize	70.00	1.00	ŏ-ŏ	2%	0.00
5 G1R4F80205 Jowar	50.00	1.00	0-0	2%	0.00
6 G1R4FS0206 Bajra	70.00	1.00	0-0	2%	0.00
7 P3F4F\$1001 Chips	100.00	10.00	2-1	10%	0.00
8 P1F4FS0502 Cornflakes	160.00	1.00	3-1	5%	4.00
Chocolates has been					
deleted					
deleted					

Bill(main menu option)



	Item 1	List					
\$1.no	Barcode	l Name	Price	Qty∕unit	Buy - Fre	e (Discoun	t¦SoldQty
1	G1R4FS0201	Toor Dal	120.00	1.00	0-0	0%	5.00
2	G1R4FS0202	Moong Dal	120.00	1.00	0-0	2%	0.00
3	G1R4FS0203	Raagi	35.00	0.50	0-0	2%	0.00
4 5	G1R4FS0204		70.00	1.00	0-0	2%	
5	G1R4F80205		50.00	1.00	0-0	2%	
6	G1R4FS0206		70.00	1.00	0-0	2%	
7	P3F4F\$1001		100.00	10.00	2-1		30.00
8	P1F4FS0502	Cornf lakes	160.00	1.00	3-1	5×	22.00
	Bill						
Enter barcode: P3F4F\$1001 Enter no. of units: 2 Do you want to add more items to the bill(y/n):							

Pre bill

	₹₹ G :	Enterprises	>>				
IS1.no	Barcode	l Name	Price	¦Qty∕unit¦Fr	eeoff	Discount	
	P1F4FS0502 P3F4FS1001	Cornflakes Chips	160.00 100.00	6.00 2.00		48.00 20.00	
press1	. to procee	d with tran	saction				
-							

Bill

<pre><{ G Enterprises }}</pre>	
Sl.no Barcode Name Price	Qty/unit Freeoff Discount
1 P1F4F\$0502 Cornflakes 160.00 2 P3F4F\$1001 Chips 100.00	6.00 2 48.00 2.00 1 20.00
Enter cash provided by custo Change = 408.00 Thank you for shopping with G Enterprises	Total = 1092.00 omer:1500

Bill Reciept

	Bill - N	Votepad
File Edit Format View Help		
{{ Abc }} Bill no:1	14:41:40	Apr 7 2020
S1.no Barcode Name	Price Qty/unit F	reeoff Discount
1 P1F4FS0503 Noodles	15.00 7.00	1 0.00
2 G1R4FS0201 Toor Dal	120.00 2.00	0 0.00
		Total = 345.00

Name and Signature of the Faculty