Title :

Grocery store bill generation

Objective :

To make simple and accurate bill generation process so that from young to old man Can use it and be familiar with it.

Introduction :

Now a days bill making process by hand writing is not comfortable and not useful because of we have to store all the bill day by day so to solve this problem and make user friendly software I have make this code so that any grocery shopkeeper can take benefit of it and overcome their daily workload from make bill and store it for long time.

Part of code :

I have done project alone no other students involved in this project. and I have done this project before second exam so not include functions but I have include one function time(&t) so it is mini project done by only me one.

Project done by roll no :

21cej018

Methodology followed :

I pasted pseudo code(because of main code is about 200 line and it
all not necessary to paste here) and simultaneously I have explained
which concept used

First of all I have print basic introduction about over grocery store
and print all type of product mainly used in grocery store

```c
#include <stdio.h>
#include <time.h>
#include<string.h>
int main()
{
  int n;
  printf("******welcome to discount grocery store******\n");

  printf("how may type of products you want to purchase out of given 6 \n");
  printf("and you dont want to anythings buy press 0\n");

  printf("type 1 for food products\n");
  printf("type 2 for washing products\n");
  printf("type 3 for spices\n");
  printf("type 4 for soft drinks\n");
  printf("type 5 for bakery products\n");
  printf("type 6 for oil bottle\n");
```

now I have take number of type for which customer buy product I
have mention 6 type of product if customer enter any number
another form this 1 to 6 so while loop take value further because of if
he/she enter another from 1 to 6 so code will not run perfectly

```c
scanf("%d", &n);
  while (n != 1 && n != 2 && n != 3 && n != 4 && n != 5 && n != 6 && n != 0)
  {
    printf("press only form 1 to 6\n");
    scanf("%d", &n);
  }
```

As per as our condition if any one enter o so according to goto statement concept it will go to end statement and print code written at end: statement

```
if (n == 0)
  {
    printf("***your have to pay %d rupees*** \n", 0);
    goto end;
  }
```

Now as per as written end statement code will run and print that you have to pay 0 rupees because of he/she not buy anything

And here I have use time(&t) function so by this function compile print that day's name(for ex monday) time when this bill generated in hour:minute:second and print date number and year so that as per as our intention customer and shopkeeper can take record of this bill generated

```
 time_t t;
end:

  printf("bill is generated on :");
  time(&t);
  printf("%s", ctime(&t));
```

now suppose customer would like to purchase from type no 1,2,3 so I have take it in array of n size. now I will take this three type from for loop and our example it will store in b[0],b[1] and b[2]

```
printf("enter %d type no for which you want to perchase \n", n);

  for (int i = 0; i < n; i++)
  {
    scanf("%d", &b[i]);
  }
```

Now we have to print this three type so I have use nested for loop with containing nested if else statement so that if else statement compare the type and print product according

So as per as over example I have pasted product of three type of item.

After it customer will enter product quantity he/she would like to buy and I have store this all choice in 6 array named as b1[4],b2[4]

b3[4],b4[4],b5[4]and b6[4]

and after it I have make one loop so this loop will take sum of all product according to its type

```c
for (int i = 0; i < n; i++)
 {
   if (b[i] == 1)
   {
     printf("1) wheat :- 60 ruppes per kg \n");
     printf("2) rice :- 100 ruppes per kg\n");
     printf("3) corn flour:- 50 ruppes per kg\n");
     printf("4) sugar :- 60 ruppes per kg\n");
     printf("\n");
     printf("now enter how many kg wheat,rice,corn,sugar in sequence
you want ?\n");
     for (int j = 0; j < 4; j++)
     {
       scanf("%d\n", &b1[j]);
     }

for(int i=0;i<4;i++)
{

 add1=60*b1[0]+100*b1[1]+50*b1[2]+60*b1[3];
}
printf("total bill is %d\n",add1);
     }
```

```c
    else
    {
      if (b[i] == 2)
      {
        printf("1)patanjali soap :- 20 ruppes per piece\n");
        printf("2) surf excel detergent :- 100 ruppes per kg\n");
        printf("3)surf excel matic liquid :- 190 ruppes per litre\n");
        printf("4) lifebuoy handwash :- 50 ruppes per litre\n");
        printf("\n");
        for (int j = 0; j < 4; j++)
      {
        scanf("%d\n", &b2[j]);
      }

for(int i=0;i<4;i++)
{

 Add2=20*b2[0]+100*b2[1]+190*b2[2]+50*b2[3];
}
printf("total bill is %d\n",add2);
      }
      else
      {
        if (b[i] == 3)
        {
          printf("1)patanjali iodized namak:- 100 ruppes per kg\n");
          printf("2)mirchi power :- 100 ruppes per kg\n");
          printf("3)dry cloves/laung:- 580 ruppes per kg\n");
          printf("4)taj mahal tea :- 750 ruppes per kg\n");
          printf("\n");
          for (int j = 0; j < 4; j++)
      {
        scanf("%d\n", &b3[j]);
      }

for(int i=0;i<4;i++)
{

 Add3=100*b3[0]+100*b3[1]+580*b3[2]+750*b3[3];
}
printf("total bill is %d\n",add1);
      }
      else
      {
        if (b[i] == 4)
.
```

```
.
.
.
.
           Code for next type of 4,5 and 6
```

and after doing the sum of all product it will store it into a 6 int variable

And after it add1 to add6 variable take the sum of this

So as per as our example it take add1,add2,add3 and add4 and add5 and add6 will become 0

```
int add1,add2,add3,add4,add5,add6;
```

now I have make one add variable so that I can do sum of taken 6 variable from add1 to add6

and after it i mention discount so after doing further arithmetic operation final bill generate

```
int add=add1+add2+add3+add4+add5+add6;
printf("total bill is\n",add);
printf("discount is 10 persent \n");
int c=add-add/10;
printf("final bill is %d\n",c);
```

Nowadays process I have asked user he/she would like to take delivery if use enter 1 so I have to add 50 to final sum and if he/she no want so I have to print total sum as was.

Here we can do one thing also we can use concept of string first we will take yes or no as string and after it we use strcmp(s1,yes_string)

If it true so we will add 50 else print final bill

```
printf("you want any dellivery if yes then enter 1 else 0\n");
```

```
int z;
scanf("%d",&z);

/*here we can you strcmp() string function to compare yes with input
string*/
if(z==1)
{
  printf("your bill final bill with discount and delivery charge is
%d\n",c+50);
}
else
{
printf("your bill final bill with discount and delivery charge is
%d\n",c);
}
```

And here I have use time(&t) function so by this function compile
print that day's name(for ex monday) time when this bill generated
in hour:minute:second and print date number and year so that as per
as our intention customer and shopkeeper can take record of this bill
generated

```
 time_t t;

  printf("bill is generated on :");
  time(&t);
  printf("%s", ctime(&t));
```

output:

out put for if we would like to buy anything from type no 1 so I have
pasted output for it

```
PS E:\c vs code> gcc f.c
PS E:\c vs code> .\a.exe
******welcome to discount grocery store******
how may type of products you want to purchase out of given 6
and you dont want to anythings buy press 0
type 1 for food products
type 2 for washing products
type 3 for spices
type 4 for soft drinks
type 5 for bakery products
type 6 for oil bottle
1

enter 1 type no for which you want to perchase
1
here is your all entered type
1) wheat :- 60 ruppes per kg
2) rice :- 100 ruppes per kg
3) corn flour:- 50 ruppes per kg
4) sugar :- 60 ruppes per kg

now enter how many kg wheat,rice,corn,sugar in sequence you want ?

1
1
1
1
total bill is 270
discount is 10 persent
final bill is 243
you want any dellivery if yes then enter 1 else 0
1
your bill final bill with discount and delivery charge is 293
bill is generated on :Mon Jan 24 20:55:40 2022
```

This is for who would not like to by anythings

```
PS E:\c vs code> gcc f.c
PS E:\c vs code> .\a.exe
******welcome to discount grocery store******
how may type of products you want to purchase out of given 6
and you dont want to anythings buy press 0
type 1 for food products
type 2 for washing products
type 3 for spices
type 4 for soft drinks
type 5 for bakery products
type 6 for oil bottle
0
***your have to pay 0 rupees***
bill is generated on :Mon Jan 24 20:58:42 2022
```

summary(which concept I have use)

printf(),scanf()and nested If else which contain nested for loop and

I have used while loop and apart from it I have use time(&t) function to print current time and date as shown in out put side and alternate use for to ask person would like to take delivery or not we have to use strcmp() string function and all remaining part I have mentioned with example.