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Course code: SCSA2302

Smart system for detecting the food is edible/expire

Problem statement

Though the problem of food wastage has been quite prevalent in the past few years,significant efforts were not made to prevent it. As observed by recent trends , American households tend to ignore the issue of food wastage and do not take necessary steps to avoid it. It has been proven by a study that household food wastage is less in developing countries as compared to developed countries.

AIM

To implement code for running the smart system for detecting the food is edible/expiry.

Procedure/Algorithm

Step 1: Start.

Step 2: Import stdio.h and time.h libraries.

Step 3: Define MAX_YEAR 9999 and MIN_YEAR 1900.

Step 4: Initialize the integer variable as YEAR MONTH and DATE by using structure (struct).

Step 5: Now check the enter leap year and not leap year.

Step 6: Enter the expiry dates details in the given inputs.

Step 7: Verify the validity of the expiry dates.

Step 8: Now check whether the expiry date is null or not. If it is null return 0 by if statements .

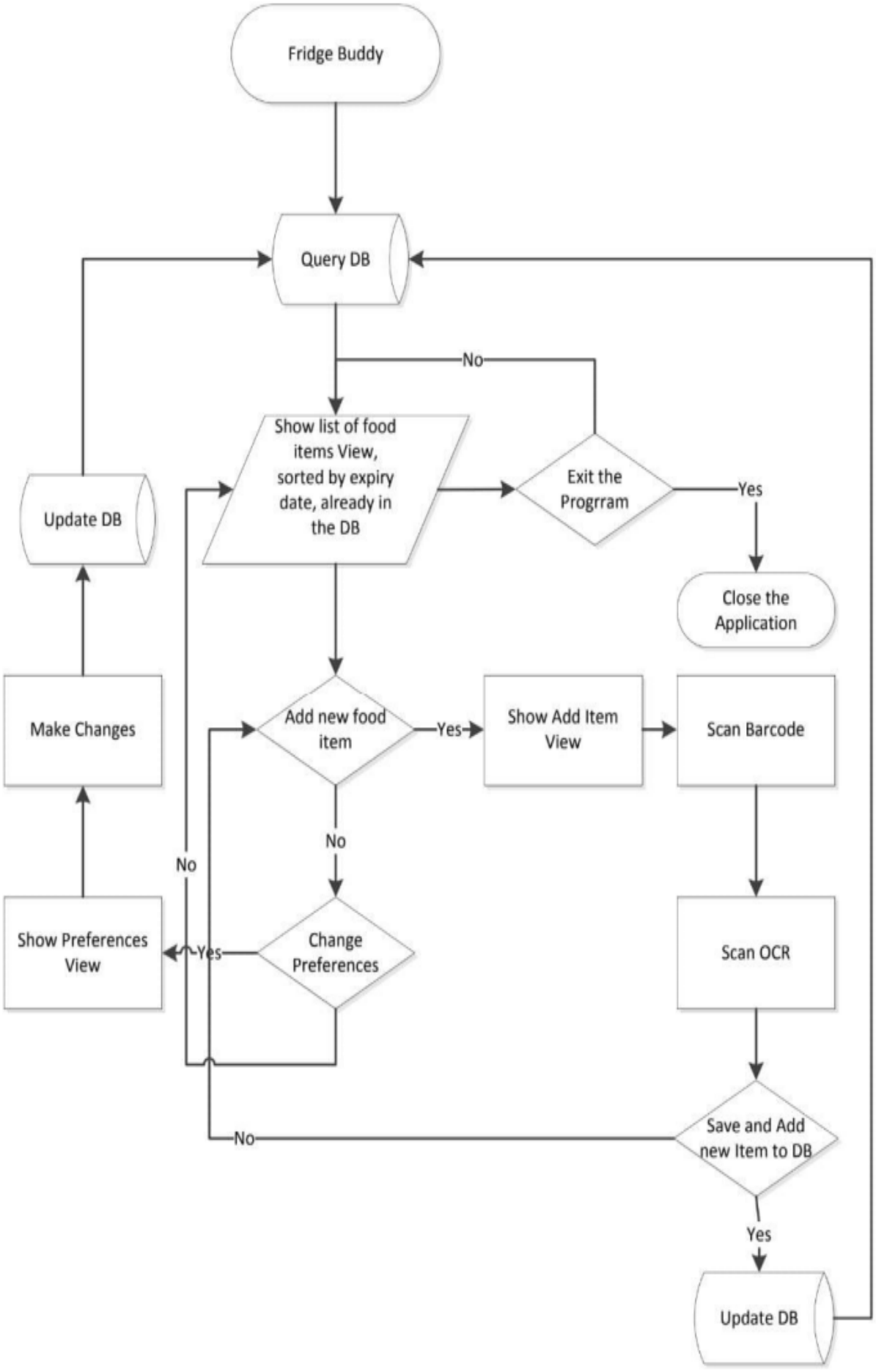
Step 9: If you have Enter the correct expiry details it will print (“product date has not been expired”).

Step 10: Else print(“Product has been expired”).

Step 11: Stop the program.

Flow chart

It shows that when the application is launched it calls the main activity that has a view which displays the list of all the food items that are already added to the database. This view has the items in the order of closest day of expiry, so the item which is going to expire soon will show up on top of the list. If the user chooses to add a new item, the Add Item view shows up which has all the options to add the necessary information related to the food item.


Fridge Buddy
Query DB
No
Show list of food items View, sorted by expiry date, already in the DB
Exit the Progrram
Yes
Close the Application
Update DB
Make Changes
Add new food item
Yes
Show Add Item View
Scan Barcode
No
No
Show Preferences View
Yes
Change Preferences
Scan OCR
Save and Add new Item to DB
No
Yes
Update DB

Program code

```
#include<iostream>
#include<string.h>
using namespace std;

int main(){
   int date,month,year;
   cout<<"Enter the Expiry Date: ";
   cin>>date;
   if(date>31){
      cout<<"Invalid Date";
      return 0;
   }
   cout<<"Enter the Expiry Month: ";
   cin>>month;
   if(month>12){
      cout<<"Invalid Month";
      return 0;
   }
   cout<<"Enter the Expiry Year: ";
   cin>>year;
   int d,m,y;
```

```
cout<<"Enter the Current Date: ";
cin>>d;
if(d>31){
   cout<<"Invalid Date";
   return 0;
}
cout<<"Enter the Current Month: ";
cin>>m;
if(m>12){
   cout<<"Invalid Month";
   return 0;
}
cout<<"Enter the Current Year: ";
cin>>y;
if(y<2021){
   cout<<"Invalid Year";
   return 0;
}
if(y>year){
   cout<<"The Food is inedible";
}
else if(y==year){
   if(m>month){
      cout<<"The Food is inedible";
   }
   else if(m==month){
```

```
            if(d>date){
                cout<<"The Food is inedible";
            }
            else{
                cout<<"The Food is edible";
            }
        }
        else{
            cout<<"The Food is edible";
        }
    }
    else{
        cout<<"The Food is edible";
    }

    return 0;
}
```

Output

- Output 1

- Output 2

Result

The C++ program code for executing smart system for detecting the food is edible / expire is implemented successfully and complied.

Conclusion

Thus we can conclude that the above C++ code program is used to check whether the food item is edible\expired by giving input like year ,month and date of manufacture by taking this inputs we can able to check the food is expired or not.

Source of Reference

1.https://www.researchgate.net/publication/283556955_Signature_verification_using_Java_-_Python_for_small_computational_devices

2.https://www.researchgate.net/publication/351322176_A_Review_-_Signature_Verification_System_Using_Deep_Learning_A_Challenging_Problem