

North South University

Dept. Of Electrical and Computer Engineering

Title:

NC

Nicotine Calculator

Course: CSE115

Section:02

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Project Overview:

Smoking has become a bad addiction for many people. Since it contains large amount of nicotine and other harmful chemicals , giving up smoking is quite difficult. NC is a C language program where the user gets to choose which brand of cigarette he smokes and input the number of cigarettes he smokes every day for one week. At the end of the week the amount of nicotine in his blood is calculated as per the brand chosen and the result is displayed.

Features:

* There is a menu of 4 kinds of cigarette brand to choose from:

Marlboro Gold

Dunhill

Benson and Hedges

Gold leaf

* The program asks the user to enter the number of cigarettes for consecutive days for a week.
* At the end of the week it calculates and displays the total number of cigarettes along with the total nicotine intake as per the brand for the week.
* Also it allows the user to edit the number of cigarettes to rectify a wrong cigarette number input.

Functions :

1. Pre-defined Function:

* printf() : displays information on console
* scanf() :reads the information entered by user from console
* fopen() :opens file
* fclose() :closes file
* struct : indicates a structure type with variables initialized within it

1. User-Defined Functions:

* - printf() : displays information on console

Source Code :

#include <stdio.h>

#include<stdlib.h>

struct nicotinecontent{

int cignum1, cignum2, cignum3, cignum4, cignum5,cignum6,cignum7;

float weeklync;

};

void display(struct nicotinecontent nn);

int main()

{

struct nicotinecontent n;

char ch;

int Total;

float weeklynyc=0;

FILE \*Originalfp=fopen("E:\\text.txt","w+");

FILE \*q=fopen("E:\\text.txt","r");

if(Originalfp==NULL)

{

printf("File does not exist");

}

printf("Which brand of cigarette do u consume on daily basis? \n");

printf("Press 1 for Marlboro Gold\n");

printf("Press 2 for Dunhill\n");

printf("Press 3 for Benson and Hedges\n");

printf("Press 4 for Gold leaf\n");

scanf("%c",&ch);

printf("Enter the number of cigarettes u smoked on Sunday:");

scanf("%d",&n.cignum1);

printf("Enter the number of cigarettes u smoked on Monday:");

scanf("%d",&n.cignum2);

printf("Enter the number of cigarettes u smoked on Tuesday:");

scanf("%d",&n.cignum3);

printf("Enter the number of cigarettes u smoked on Wednesday:");

scanf("%d",&n.cignum4);

printf("Enter the number of cigarettes u smoked on Thursday:");

scanf("%d",&n.cignum5);

printf("Enter the number of cigarettes u smoked on Friday:");

scanf("%d",&n.cignum6);

printf("Enter the number of cigarettes u smoked on Saturday:");

scanf("%d",&n.cignum7);

fprintf(Originalfp," Number of cigarette on Sunday:%d\n Number of cigarette on Monday:%d \n Number of cigarette on Tuesday:%d\n Number of cigarette on Wednesday: %d\nNumber of cigarette on Thursday: %d\n Number of cigarette on Friday: %d\n Number of cigarette on Saturday: %d",n.cignum1,n.cignum2,n.cignum3,n.cignum4,n.cignum5,n.cignum6,n.cignum7);

do

{

fscanf(q,"%d %d %d %d %d %d %d",&n.cignum1,&n.cignum2,&n.cignum3,&n.cignum4,&n.cignum5,&n.cignum6,&n.cignum7);

}while(!feof(q));

Total=n.cignum1+n.cignum2+n.cignum3+n.cignum4+n.cignum5+n.cignum6+n.cignum7;

printf("Total number of cigarette you consumed throughout the week=%d\n",Total);

if(ch==1)

{

n.weeklync=n.weeklync+(Total\*13.16);

}

else if(ch==2)

{

n.weeklync=n.weeklync+(Total\*11.30);

}

else if(ch==3)

{

n.weeklync=n.weeklync+(Total\*13.03);

}

else if(ch==4)

{

n.weeklync=n.weeklync+(Total\*10);

}

fprintf("Weekly nicotine content:%f",n.weeklync);

fclose(Originalfp);

display(n);

}

void display(struct nicotinecontent nn)

{

printf("Cigarettes consumed on day 1:%d\n",nn.cignum1);

printf("Cigarettes consumed on day 2:%d\n",nn.cignum2);

printf("Cigarettes consumed on day 3:%d\n",nn.cignum3);

printf("Cigarettes consumed on day 4:%d\n",nn.cignum4);

printf("Cigarettes consumed on day 5:%d\n",nn.cignum5);

printf("Cigarettes consumed on day 6:%d\n",nn.cignum6);

printf("Cigarettes consumed on day 7:%d\n",nn.cignum7);

printf("Weekly nicotine content :%f mg",nn.weeklync);

}