COFFEE MACHINE

FILE OF COFFEE.C

In the file of the coffee.c we divided into three voids in order to create a menu and connect with the switch – cases. In addition to that, there is an integer to take input from the user for the connected menus ‘ Hot – Cold – Exit’ and there is an if statement in order to control the input which is taken from the user.

FILE OF EXIT.C

It is a simple design that was created with UNIX library with the commands of ‘Figlet – Sleep – Clear’.

FILE OF COLD.C

In the file of cold.c we divided into 6 functions

- Printing\_Menu

- addBlanace

- wrong\_money\_number

- isSizeValid

- Moneyprocces

-PrepareandServeCoffee

FILE OF HOT.C

In the file of hot.c we divided into 6 functions

- Printing\_Menu

- addBlanace

- wrong\_money\_number

- isSizeValid

- Moneyprocces

-PrepareandServeCoffee

FUNCTION OF Printing\_Menu

The sizes of the coffees are divided into the 3 sizes which are Small, Medium, and Large in that function we show the user the sizes after choosing the coffee.

In that case, we used If and else statements to equal the sizes.

FUNCTION OF addBalance

There are variables inside of the addBalance function for instance we used credit – price calculate – addBalance with the float variable.

In that case, the user can see their own balance and another thing is the user also can see how much credit he/she should add inside of the machine

In addition to that, we connected addBalance function with another place in order to add money to the insufficient balance.

FUNCTION OF wrong\_money\_number

We designed a code that in order the block the user to not adding coins than 0.5 – 1 – 2 – 5.

We coded a simple If statement for this part.

FUNCTION OF isSizeValid

In that function, we created a simple if-else statement in order to take an input from the users for the sizes of the coffees.

We used pointers in the if-else statement in order to call size. In addition to that, another opportunity of the pointer is size is not related to only one option.

FUNCTION OF Moneyprocces

In that function, we created a do-while loop.

In The First, If statement: If the taken input from the user is less than the price of the coffee we called the addBalance function

In the Second If statement: if the taken input from the user is equal to the price of the coffee we used the calcualte2 variable with the pointer and we equal the calculate2 to 0 and then we used it to continue the preparation of the coffee

In the Third and last if statement: if the taken input from the user is more than the price of the coffee we used calculate2 with the pointer and create a simple mathematic in order the give the change to user

FUNCTION OF PrepareandServeCoffee

In that function, we created size from char and calculate it from the float. We called these two variables with the pointers.

Inside of the function with the printf we showed the preparation and wait for the user with sleep command which is coded by UNIX library

HOW DOES IT WORKS

Text

Description automatically generated

Initially the user see the main menu according to the decision of the user the menu divided into 3 categories which are HOT COLD and EXIT

Graphical user interface, text

Description automatically generated with medium confidence

For instance, the user chooses the hot type of coffee and sees a different menu on the clean page. This menu divide into 3 types

* TYPE OF COFFEES
* BACK TO MAIN MENU
* EXIT

Text

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For instance, if the user chooses hot chocolate, this menu also divided into 3 choice

* SMALL
* MEDIUM
* LARGE

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Imagine that, the user adds 5 credits in order to take the Medium size of the hot chocolate the program shows

* Here is your change
* Preparing the coffee
* Enjoy it

After that program returns to hot coffees menu

Text

Description automatically generated with medium confidence

And the final is exit what if the user wants to exit the program. In addition to that the user can exit from the program in three menusShape

Description automatically generated with medium confidence

WHAT WE LEARNED

1. How to use functions.
2. How to use and call the pointers inside of the functions.
3. How to communicate and work as a team.
4. How to call UNIX Library and use it inside of the development
5. Using loops inside of the functions (Do - While)
6. How to create an algorithm as a team project
7. How to convert C or C++ Script to C++ or C
8. Structure of C and C++ Programming Languages
9. How to Connect different C or C++ files with the system library.
10. We learned how to search, collect, and use the data from the internet and use these data inside of the script
11. How to find bugs and try to fix it

TASK DISTRIBUTION

1. Mustafa Bozteke: Convert C codes and functions to the C++ code functions in the project. In addition to that creating an algorithm with a team
2. Ozan Umut Guney: Worked as a tester and find the bugs in C and C++ . Also worked as a developer while developing to hot file in the project of the C part. In addition to that creating an algorithm with a team.

1. Talha Akyuzlu: Worked as a developer while developing to cold, exit, and main structure of the coffee part (coffee.c). In addition to that creating an algorithm with a team. In addition to that due to unexpected circumstances tried to code and convert the script from C to Octave but failed in octave.

WE TRIED TO DO OUR BEST ☺