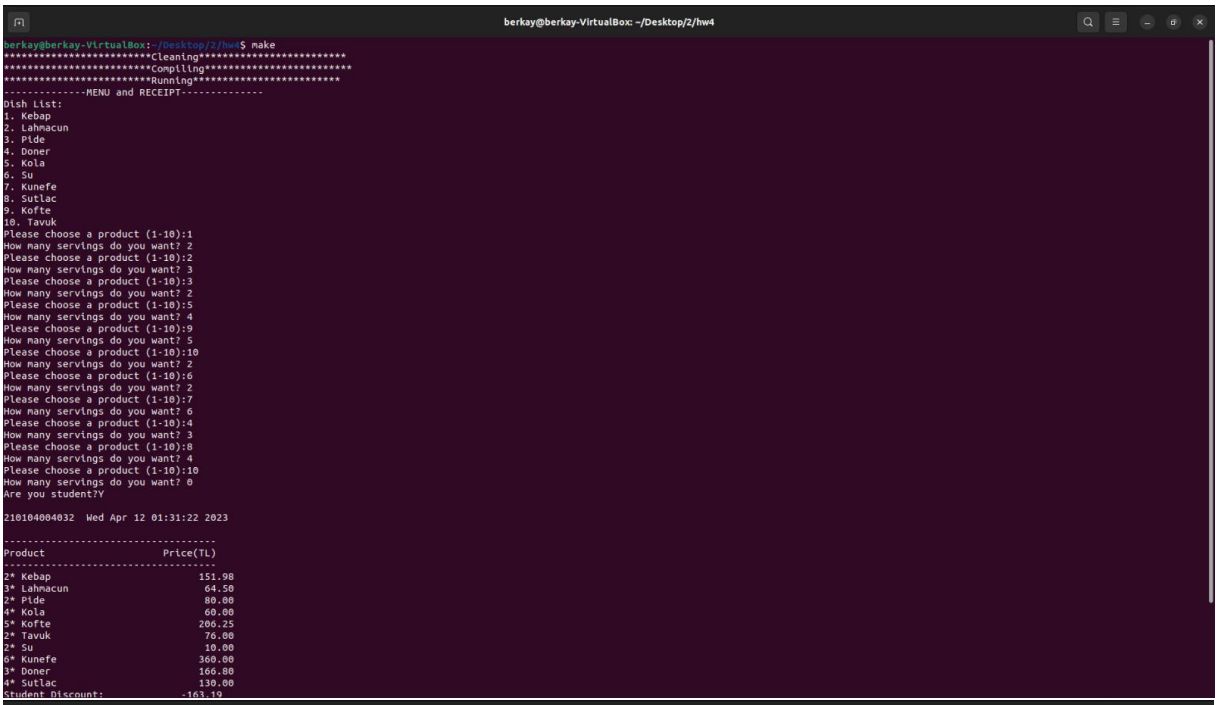
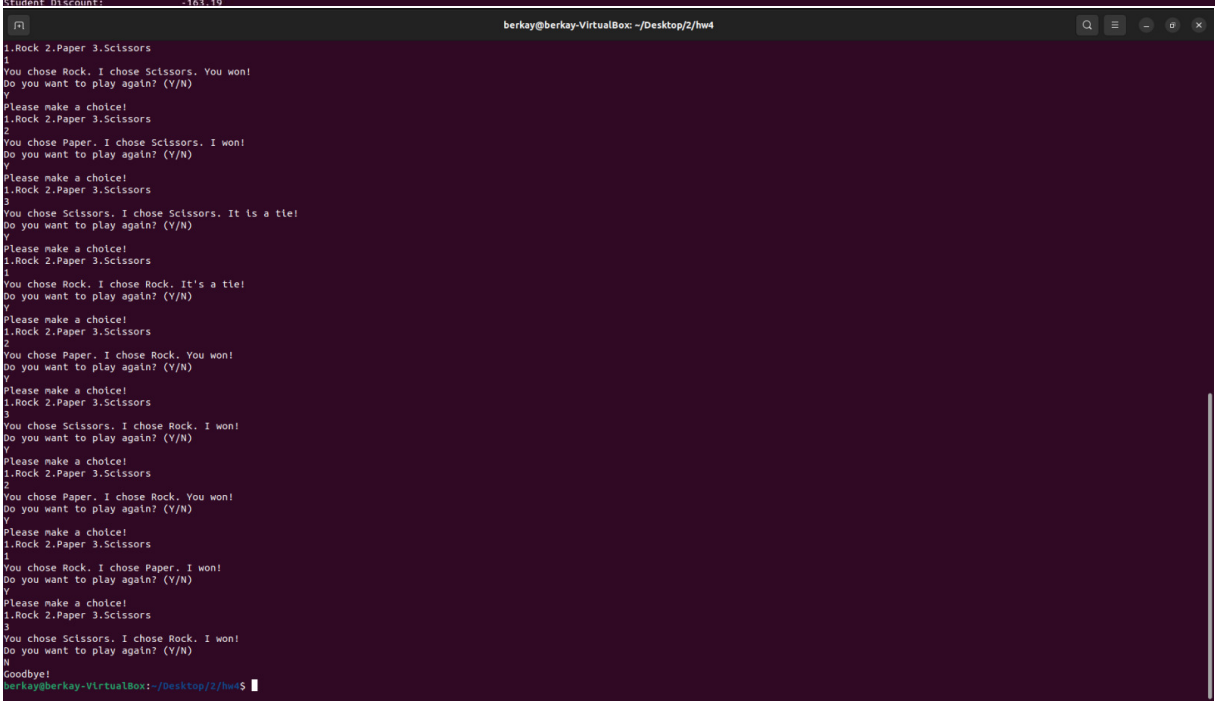

berkay@berkay-VirtualBox: ~/Desktop/2/hw4
berkay@berkay-VirtualBox:~/Desktop/2/hw4$ make
**********Cleaning**********
**********Compiling**********
**********Running**********
-------------MENU and RECEIPT-------------
Dish List:
1. Kebap
2. Lahmacun
3. Pide
4. Doner
5. Kola
6. Su
7. Kunefe
8. Sutlac
9. Kofte
10. Tavuk
Please choose a product (1-10):1
How many servings do you want? 2
Please choose a product (1-10):2
How many servings do you want? 3
Please choose a product (1-10):3
How many servings do you want? 2
Please choose a product (1-10):5
How many servings do you want? 4
Please choose a product (1-10):9
How many servings do you want? 5
Please choose a product (1-10):10
How many servings do you want? 2
Please choose a product (1-10):6
How many servings do you want? 2
Please choose a product (1-10):7
How many servings do you want? 6
Please choose a product (1-10):4
How many servings do you want? 3
Please choose a product (1-10):8
How many servings do you want? 4
Please choose a product (1-10):10
How many servings do you want? 0
Are you student?Y
210104004032 Wed Apr 12 01:31:22 2023
Product Price(TL)
2* Kebap 151.98
3* Lahmacun 64.50
2* Pide 80.00
4* Kola 60.00
5* Kofte 206.25
2* Tavuk 76.00
2* Su 10.00
6* Kunefe 360.00
3* Doner 166.80
4* Sutlac 130.00
Student Discount: -163.19


berkay@berkay-VirtualBox: ~/Desktop/2/hw4
1.Rock 2.Paper 3.Scissors
1
You chose Rock. I chose Scissors. You won!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
2
You chose Paper. I chose Scissors. I won!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
3
You chose Scissors. I chose Scissors. It is a tie!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
1
You chose Rock. I chose Rock. It's a tie!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
2
You chose Paper. I chose Rock. You won!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
3
You chose Scissors. I chose Rock. I won!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
2
You chose Paper. I chose Rock. You won!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
1
You chose Rock. I chose Paper. I won!
Do you want to play again? (Y/N)
Y
Please make a choice!
1.Rock 2.Paper 3.Scissors
3
You chose Scissors. I chose Rock. I won!
Do you want to play again? (Y/N)
N
Goodbye!
berkay@berkay-VirtualBox:~/Desktop/2/hw4$

Open main.c ~/Desktop/2/hw4 Save

```c
#include <stdio.h>
#include <math.h>
#include <stdlib.h>
#include <time.h>

//defining rock,paper,scissors according to three's divisors.
#define ROCK 0
#define PAPER 1
#define SCISSORS 2

//functions for the first part.
int check_student();
int number_and_time();
int read_menu();
int dish_choose();
int print_receipt();
int find_digit(double price);
int total_price(double total);
double print_menu(int product , int number_of_product);

//functions.
int part1();
int part2();

int main(){

        part1();
        part2();


}
int part1()
{
printf("--------------MENU and RECEIPT--------------\n");
//calling the functions part by part.
number_and_time();
read_menu();
dish_choose();
}

int part2()
{
printf("-------- ROCK - PAPER - SCISSORS --------\n");
    //declaring variables.
    int comp_choose , user_choice , flag;
    char select;
    flag = 1;

    //starting an endless loop until the user wants to quit.
    while(1){

    //making random choices for computer.
        srand(time(NULL));
        comp_choose = ((rand() % 10) % 3);
```

C Tab Width: 8 Ln 21, Col 13 INS

Open main.c ~/Desktop/2/hw4 Save

```c
    //asking the user for the input.
        printf("Please make a choice!\n");
        printf("1.Rock 2.Paper 3.Scissors\n");
            scanf("%d" , &user_choice);

    //checking if the user_choice is in my interval.
        if(user_choice > 3 || user_choice < 1)
        {
                printf("Enter a valid number!");
                return 0;
        }

    //switch cases for rock,paper,scissors
        switch(user_choice - 1){
            case ROCK:
                if(comp_choose == ROCK)
                {
                    printf("You chose Rock. I chose Rock. It's a tie!\n");
                }
                else if(comp_choose == PAPER)
                {
                    printf("You chose Rock. I chose Paper. I won!\n");
                }
                else if(comp_choose == SCISSORS)
                {
                    printf("You chose Rock. I chose Scissors. You won!\n");
                }
                break;

            case PAPER:
                if(comp_choose == ROCK)
                {
                    printf("You chose Paper. I chose Rock. You won!\n");
                }
                else if(comp_choose == PAPER)
                {
                    printf("You chose Paper. I chose Paper. It is a tie!\n");
                }
                else if(comp_choose == SCISSORS)
                {
                    printf("You chose Paper. I chose Scissors. I won!\n");
                }
                break;

            case SCISSORS:
                if(comp_choose == ROCK)
                {
                    printf("You chose Scissors. I chose Rock. I won!\n");
                }
                else if(comp_choose == PAPER)
                {
                    printf("You chose Scissors. I chose Paper. You won!\n");
                }
                else if(comp_choose == SCISSORS)
```

C Tab Width: 8 Ln 34, Col 38 INS

Open — main.c — ~/Desktop/2/hw4 — Save

```
108                 else if(comp_choose == SCISSORS)
109                 {
110                     printf("You chose Scissors. I chose Scissors. It is a tie!\n");
111                 }
112                 break;
113         }
114 
115         //asking the user to play again or not.
116         printf("Do you want to play again? (Y/N)\n");
117             scanf(" %c" , &select);
118             if(select == 'N')
119             {
120                 printf("Goodbye!\n");
121                 flag = 0;
122             }
123             if(select == 'Y')
124             {
125                 flag == 1;
126             }
127             if(flag == 0)
128             {
129                 break;
130             }
131     }
132 }
133 //i created this function for printing the time and my student number.
134 int number_and_time()
135 {
136     time_t t = time(NULL);
137     FILE *receipt_ptr;
138     receipt_ptr = fopen("receipt.txt" , "w");
139     fprintf(receipt_ptr ,"210104004032  %s\n" , ctime(&t));
140     fprintf(receipt_ptr ,"-------------------------------------\n");
141     fprintf(receipt_ptr ,"Product                    Price(TL)\n");
142     fprintf(receipt_ptr ,"-------------------------------------\n");
143     fclose(receipt_ptr);
144 }
145 
146 //this function reads the menu.txt and prints it to terminal.
147 int read_menu()
148 {
149     FILE *fptr;
150     int number , i = 1;
151     double price;
152     char dish_name , c;
153 
154     //opening the file and printing the dishes.
155     fptr = fopen("menu.txt" , "r");
156     printf("Dish List:\n");
157     while(c != '\n')
158     {
159         c = fgetc(fptr);
160     }
161     c = fgetc(fptr);
```

C — Tab Width: 8 — Ln 85, Col 40 — INS

Open — main.c — ~/Desktop/2/hw4 — Save

```
162     while(i && c != EOF)
163     {
164     printf("%d. ", i);
165         while(c != 32 && c != '\t' && c)
166         {
167             printf("%c" , c);
168             c = fgetc(fptr);
169         }
170         printf("\n");
171         while((c > 90 || c < 65) && (c > 122 || c < 97) && c != EOF)
172         {
173             c = fgetc(fptr);
174         }
175     i++;
176    }
177    fclose(fptr);
178 }
179 //tths function is for choosing the dish and it consist print_menu and total_price functions.
180 int dish_choose()
181 {
182     int product , number_of_product ;
183     double total = 0.0 , price;
184     //while loop for choosing the product and number of servings.
185     while(1){
186         printf("Please choose a product (1-10):");
187             scanf("%d" , &product);
188 
189             if(product > 10 || product < 1){
190                 printf("Enter a valid product!\n");
191                 return 0;
192             }
193         printf("How many servings do you want? ");
194             scanf("%d" , &number_of_product);
195             if(number_of_product == 0){
196                 break;
197             }
198 
199             //printing the products , their prices and calculating the total price.
200             price = print_menu(product,number_of_product);
201             total = price + total;
202 
203     }
204     //calling the total_price function to print and calculate the discounts and price.
205         total_price(total);
206 
207 
208 }
209 //printing menu line by line.
210 double print_menu(int product , int number_of_product)
211 {
212 
213     FILE *menu_ptr , *receipt_ptr;
214     int counter = 0 , i;
215     char c;
```

C — Tab Width: 8 — Ln 154, Col 30 — INS

Open | main.c ~/Desktop/2/hw4 | Save

```c
    char c;
    double price;
    int length = 0;

    menu_ptr = fopen("menu.txt" , "r");
    //i opened the receip.txt in append mode because i opened it in write mode in number_and_time function.
    receipt_ptr = fopen("receipt.txt" , "a+");

    //counting to the line which user selected.
    while(counter != product)
    {
        if(c = fgetc(menu_ptr) == '\n')
        {
            counter++;
        }
    }
    c = fgetc(menu_ptr);
    //printing the number_of_product if it is greater than 1;
    if(number_of_product > 1)
    {
        fprintf(receipt_ptr , "%d* " , number_of_product);
    }
    //printing the name of dish the user selected and increasing the length each time.
    while(c != ' ' && c != '\t')
    {
        fputc(c, receipt_ptr);
        c = fgetc(menu_ptr);
        length++;
    }
    //scanning the price in the menu.txt and calculating for printing it to the receipt.txt .
    fscanf(menu_ptr , "%lf" , &price);
    price = price * number_of_product;

    //calculating the length of the price and adding it to the dish name's length.
    length = length + find_digit(price); + 3;

    //printing " " for making the receipt.txt in-order.
    for(i = 0 ; i < 33 - length ; i++)
    {
        fprintf(receipt_ptr , " ");
    }

    //printing the price.
    fprintf(receipt_ptr , "%.2lf\n" , price);

    fclose(menu_ptr);
    fclose(receipt_ptr);

    return price;

}
//this function is for calculating the discounts and total.
int total_price(double total)
{
```

C | Tab Width: 8 | Ln 154, Col 30 | INS

Open | main.c ~/Desktop/2/hw4 | Save

```c
{
    FILE *receipt_ptr;
    char student;
    double temp_total;
    temp_total = total;

    //checking if the user is student or not.
    printf("Are you student?");
    scanf(" %c" , &student);

    receipt_ptr = fopen("receipt.txt" , "a");

    //if-else statements for user.
    if(student == 'Y')
    {
        total = total - ((12.5 * temp_total) / 100);

        if(temp_total >= 150)
        {
            total = total - (temp_total / 10);
        }
        fprintf(receipt_ptr , "Student Discount:              -%.2lf\n" , ((12.5 * temp_total) / 100));
        fprintf(receipt_ptr ,"-----------------------------------\n");
        fprintf(receipt_ptr , "Price:                         %.2lf\n" , total);
        fprintf(receipt_ptr , "Price + VAT:                   %.2lf\n" , total + ((18 * temp_total) / 100));
        fclose(receipt_ptr);
        print_receipt();

    }
    else if(student == 'N')
    {
        if(temp_total >= 150)
        {
            total = total - (temp_total / 10);
        }
        fprintf(receipt_ptr ,"-----------------------------------\n");
        fprintf(receipt_ptr , "Price:                         %.2lf\n" , total);
        fprintf(receipt_ptr , "Price + VAT:                   %.2lf\n" , total + ((18 * temp_total) / 100));
        fclose(receipt_ptr);
        print_receipt();
    }

    //if the user does not enter Y or N then it gives an error.
    else{
        printf("Enter valid input!");
        return 0;
    }
}
//this function is for printing the receipt to the terminal.
int print_receipt()
{
        FILE *fptr;
        char c;
```

C | Tab Width: 8 | Ln 242, Col 18 | INS

Open | main.c ~/Desktop/2/hw4 | Save

```
303         fprintf(receipt_ptr ,"-----------------------------------\n");
304         fprintf(receipt_ptr , "Price:                           %.2lf\n" , total);
305         fprintf(receipt_ptr , "Price + VAT:                     %.2lf\n" , total + ((18 * temp_total) / 100));
306         fclose(receipt_ptr);
307         print_receipt();
308     }
309
310     //if the user does not enter Y or N then it gives an error.
311     else{
312         printf("Enter valid input!");
313         return 0;
314     }
315 }
316 //this function is for printing the receipt to the terminal.
317 int print_receipt()
318 {
319         FILE *fptr;
320         char c;
321
322         fptr = fopen("receipt.txt" , "r");
323
324         if(fptr != NULL){
325             printf("\n");
326             //printing char by char until it comes to the EOF.
327                 while(1)
328                 {
329                 c = fgetc(fptr);
330                     if(c == EOF)
331                     {
332                     break;
333                     }
334                 printf("%c", c);
335                 }
336             printf("\n");
337             fclose(fptr);
338             }
339             else{
340                 printf("Error opening file!");
341                 return 0;
342             }
343 }
344 //this function is for finding the digit of the price.
345 int find_digit(double price)
346 {
347         int temp_price = price;
348         int count = 0;
349         while(temp_price > 0)
350         {
351         temp_price = temp_price / 10;
352         count++;
353         }
354         return count;
355
356 }
```

C | Tab Width: 8 | Ln 300, Col 10 | INS