Computer Programming Project

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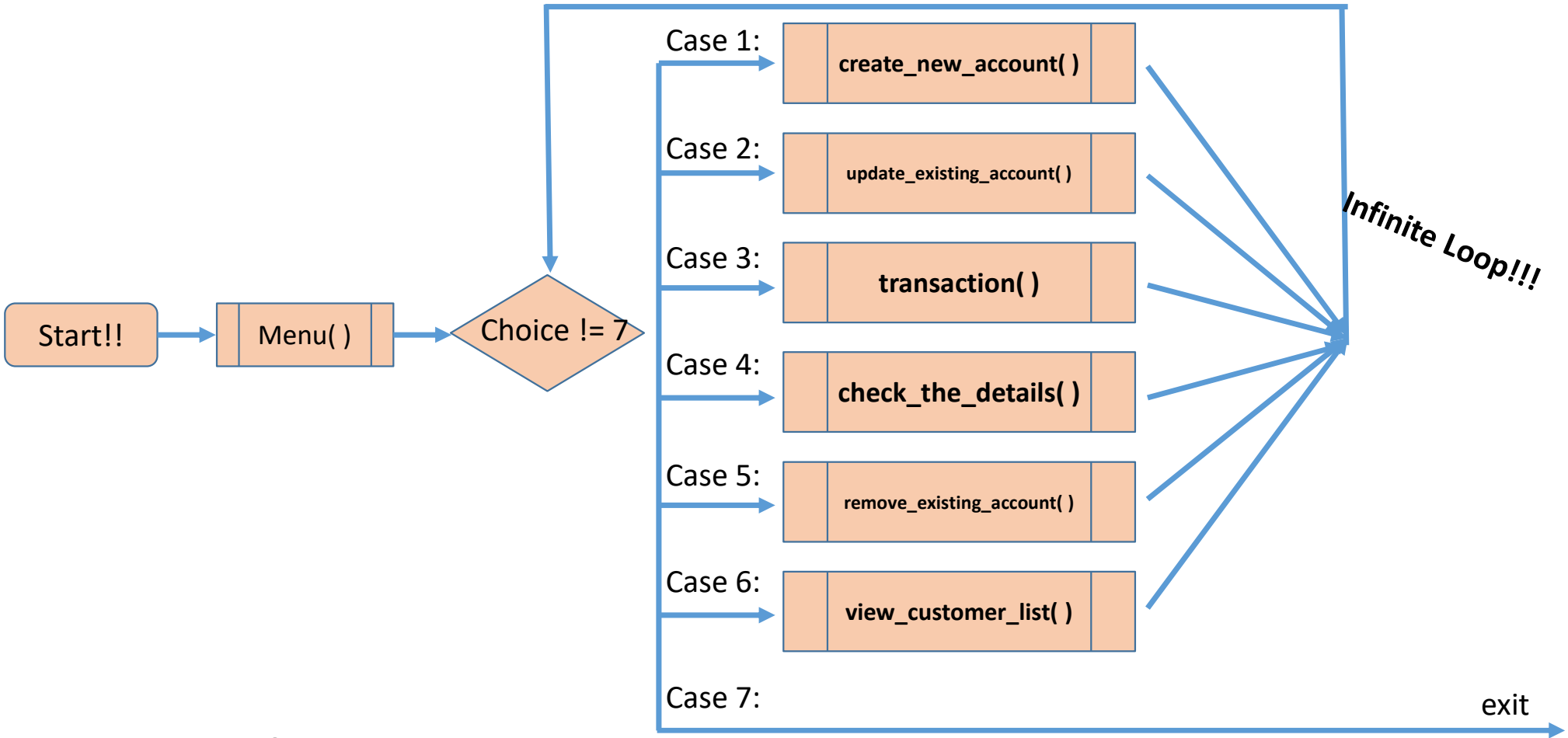
Overall flowchart



Implementation of each functions

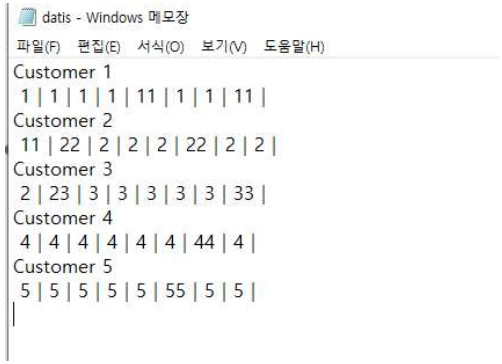
```
//1. menu : 어떤 함수를 실행할 것인지 안내
void menu() {
```

1. void menu ( )
: provides a selection that the user can choose from.

There are selections from 1 to 7, and if user enter 7, the program exits

```
// 2. create_new_account : 정보를 입력한다.
void create_new_account(FILE* fp, int number_of_customers, struct Customer *c) {
```

2. void create_new_account (File* fp, int number, struct Customer* c)
: if user enter 1, this method is executed.



1) File open
2) Enter the information(name, date of birth, age, citizenship number, address, phone number, account number, amount to deposit, type of deposit
3) Save them in a Structure array, and text file
4) fclose

```
// ******* File handling using fprintf
fprintf(fp, "Customer %d ₩n %s | %d | %s | %s | %s | %s | %d | %s₩n", i + 1, name, age, date_of_birth, citizenship_number, address,
  phone_number, account_number, amount_to_deposit, type_of_deposit);
```

Implementation of each functions

```
//3. update_existing_account : 기존 회원의 정보를 변경한다.
void update_existing_account(FILE* fp, int number_of_customers, struct Customer* c) {
```

3. update_existing_account(File* fp, int number, struct Customer* c)
: if user enter 2, this method is executed.
1) File open
2) Enter the index number of particular customer that user want to edit
3) Edit the information(new address, new phone number)
4) Save them in a Structure array, and a text file
5) fclose

```
//4. transaction : deposit and withdraw money to and from  a customer account
void transaction(FILE* fp, int number_of_customers, struct Customer* c) {
```

4. transaction(File* fp, int number, struct Customer* c)
: if user enter 3, this method is executed.
1) File open
2) Enter the index number of particular customer that user want to edit
3) Enter the type of deposit(deposit or withdraw?)
4) Enter the amount to deposit
5) Transact the amount of money by using structure array
6) Save them in a text file
7) fclose

Implementation of each functions

```
void check_the_details(int number_of_customers, struct Customer* c) {
```

5. check_the_details(int number, struct Customer* c)
: if user enter 4, this method is executed.

1) Enter the index number of particular customer that user want to check the details
2) Display information stored in structure arrays
3) If customer's type of deposit is "saving", show one's interest (22781512 -> 1+2 = 3%)

```
void remove_existing_account(FILE* fp, int number_of_customers, struct Customer* c) {
// delete a customer account
```

6. remove_existing_account(File* fp, int number, struct Customer* c)
: if user enter 5, this method is executed.

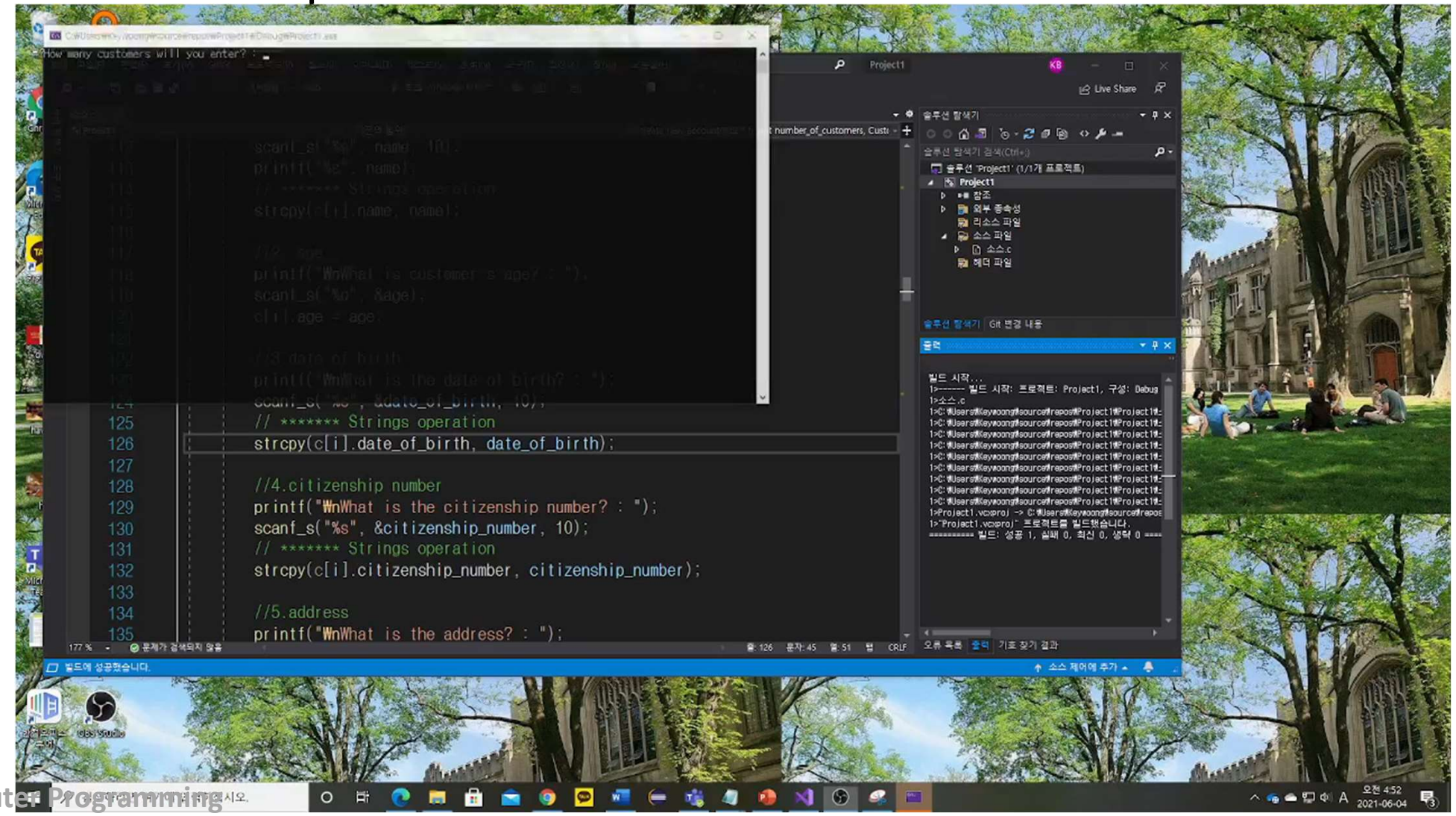
1) File open
2) Enter the index number of particular customer that user want to delete(If the number is bigger then the number of customers, tell user to re-enter it)
3) Remove the customer's information in structure array by using memcpy( ) and memset( )
4) Save them in a text file
5) fclose

```
void view_customer_list(int number_of_customers, struct Customer* c) {
```

7. view_customer_list(int number, struct Customer* c)
: if user enter 6, this method is executed.

1) File open (mode is "r+t")
2) Call the contents stored in text file by using putchar( )
3) Print them in the console window
4) fclose

Final Output



Difficulties I faced

1. **C2491 : cannot define dllimport function**

```
# include <stdio.h>
# include <string.h>
 # define DLLImport __declspec(dllimport)
```

2. **Using strcpy method**

```
//3.date of birth
printf("₩nWhat is the date of birth? : ");
scanf_s("%s", &date_of_birth, 10);
// ******* Strings operation
strcpy(c[i].date_of_birth, date_of_birth);
```

c[i].date_of_birth = date_of_birth (X)

3. **Using atoi method**

```
printf("₩nfor loop");
printf("₩nsprinted");
int a = strlen(account_number);
printf("₩n strlen");
printf("₩n >>>");
printf("%c", account_number[a-1]);
printf("₩nbefore atoi");
int bbb = atoi(account_number[a-1]);
printf("%d", bbb);
m[i][0] = bbb;
printf("₩n atoi1");
m[i][1] = atoi(account_number[a - 1]);
printf("₩n atoi2");
interest = m[i][0] + m[i][1];
printf("₩ninterest");
c[i].interest = interest;
```

The last of char array is '\0'