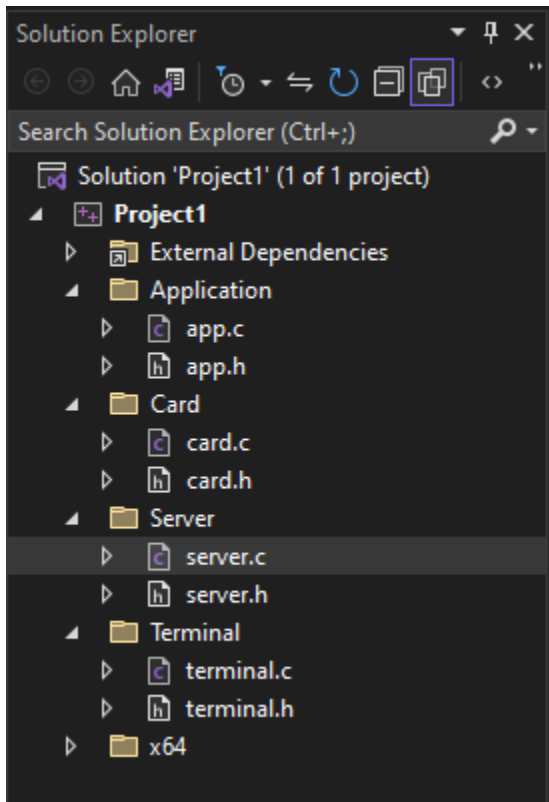


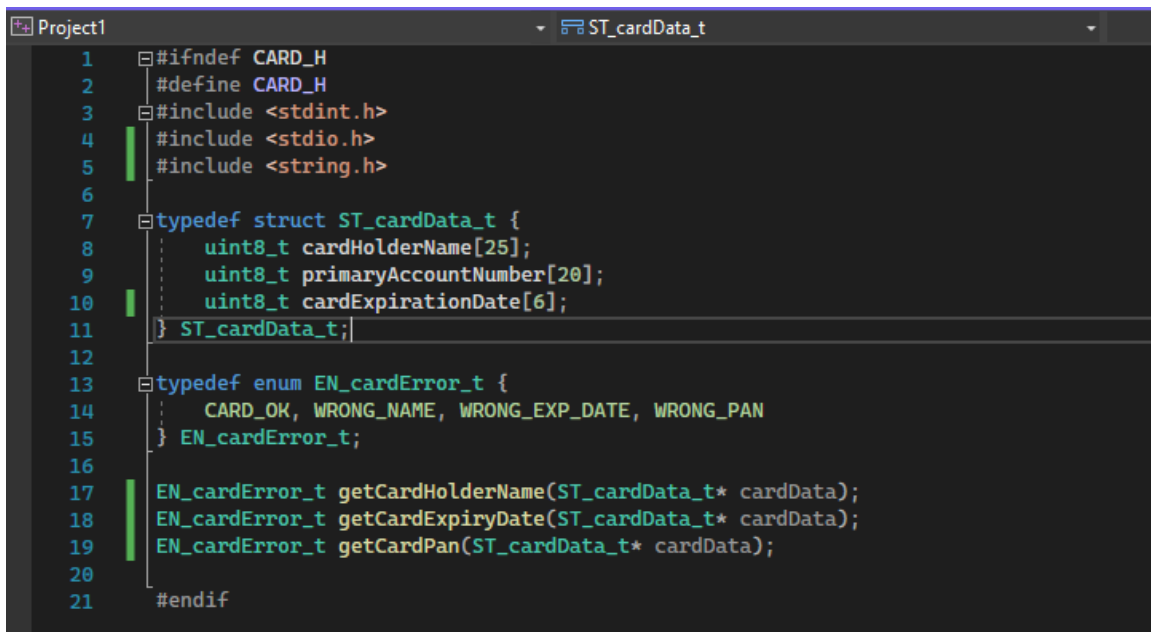
## Payment Application

### Folder structure:



### Header files:

#### Card.h:



## Terminal.h:

```
Project1 ST_terminalData_t
1  #ifndef TERMINAL_H
2  #define TERMINAL_H
3  #include <stdint.h>
4  #include <stdio.h>
5  #include "..\Card\card.h"
6  #include <time.h>
7
8
9  typedef struct ST_terminalData_t {
10     float transAmount;
11     float maxTransAmount;
12     uint8_t transactionDate[11];
13 } ST_terminalData_t;
14
15 typedef enum EN_terminalError_t {
16     TERMINAL_OK, WRONG_DATE, EXPIRED_CARD, INVALID_CARD, INVALID_AMOUNT, EXCEED_MAX_AMOUNT, INVALID_MAX_AMOUNT
17 } EN_terminalError_t;
18
19 EN_terminalError_t getTransactionDate(ST_terminalData_t* termData);
20 EN_terminalError_t isCardExpired(ST_cardData_t cardData, ST_terminalData_t termData);
21 EN_terminalError_t getTransactionAmount(ST_terminalData_t* termData);
22 EN_terminalError_t isBelowMaxAmount(ST_terminalData_t* termData);
23 EN_terminalError_t setMaxAmount(ST_terminalData_t* termData, float maxAmount);
24
25 #endif
```

## Server.h

```
Project1 EN_transState_t
1  #ifndef SERVER_H
2  #define SERVER_H
3  #include "..\Card\card.h"
4  #include "..\Terminal\terminal.h"
5
6  typedef enum EN_transState_t {
7     APPROVED, DECLINED, INSUFFICIENT_FUNDS, DECLINED_STOLEN_CARD, FRAUD_CARD, INTERNAL_SERVER_ERROR
8 } EN_transState_t;
9
10 typedef struct ST_transaction_t {
11     ST_cardData_t* cardHolderData;
12     ST_terminalData_t* terminalData;
13     EN_transState_t transState;
14     uint32_t transactionSequenceNumber;
15 } ST_transaction_t;
16
17 typedef enum EN_serverError_t {
18     SERVER_OK, SAVING_FAILED, TRANSACTION_NOT_FOUND, ACCOUNT_NOT_FOUND, LOW_BALANCE, BLOCKED_ACCOUNT
19 } EN_serverError_t;
20
21 typedef enum EN_accountState_t {
22     RUNNING, BLOCKED
23 } EN_accountState_t;
24
25 typedef struct ST_accountsDB_t {
26     float balance;
27     EN_accountState_t state;
28     uint8_t primaryAccountNumber[20];
29 } ST_accountsDB_t;
30
31 EN_transState_t receiveTransactionData(ST_transaction_t transData, ST_cardData_t* cardData, ST_terminalData_t termData);
32 int isValidAccount(ST_cardData_t* cardData);
33 EN_serverError_t isBlockedAccount(int i);
34 EN_serverError_t isAmountAvailable(ST_terminalData_t termData, int i);
35 EN_serverError_t saveTransaction(ST_transaction_t transData);
36 EN_serverError_t getTransaction(uint32_t transactionSequenceNumber, ST_transaction_t transData);
37
38 #endif
```

## App.h

```
Project1 (Global Scope)
1  #ifndef APP_H
2  #define APP_H
3  #include "..\Card\card.h"
4  #include "..\Terminal\terminal.h"
5  #include "..\Server\server.h"
6  #include <stdio.h>
7  #include <stdlib.h>
8
9  void appStart(void);
10
11
12 #endif
```