RoomChatServer v1.01

커밋된 **Git** 이름 : 로그인시 유저가 가지고있는 카드 불러오기까지

`2276fe352061259fcabc11568009fc96154fb327`

Card 관리

CCardManager

- + CCardManager()
- + bool ChangeUserCardAmount(const char * textName, char * userName, int cardNum, bool isIncrease)

typedef

- list<shared_ptr<CChannel>> ChannelList
- ChannelList::iterator ChannelListIt
- list<shared_ptr<CLink>> LinkList
- LinkList::iterator LinkListIt
- list<shared_ptr<CRoom>> RoomList
- RoomList::iterator RoomListIt
- list<shared_ptr<MyCardInfo>> MyCardList
- MyCardList::iterator MyCardListIt

클래스(객체여러개)
클래스(한개)
private 멤버변수 &함수
생성자
public 멤버함수
public 멤버함수
구조체
주석처리

ConstEnumInfo.h

```
const int Port = 9000;
const int BufSize = 1024;
const int ExcelBufSize = 4096;
const int NameSize = 30;
const int IdPwSize = 256;
const int IntSize = 4;
const int MakeThreadNum = 3;
const int EnterChannelNum = 1; // 처음 접속 채널
const int EnterRoomPeopleLimit = 2;
const int MaxChannelNum = 5;
const int ChannelAmount = 5;
const int NoneRoom = -1;
const int CardNumCols = 0; // 엑셀파일 카드 번호 열번호
const int CardNameCols = 1;
const int CardProbCols = 2;
const int CardStatCols = 3;
const int CardCost = 20;
const int StartMoney = 100; // 시작 머니
const int ErrorCardNum = 999;
 const string
StartCardInventory("01/00I02/00I03/00I04/00I05/00I06/00I07/00I08/00I09
const string NameMemberInfoTxt = "MemberInfo.txt";
const string NameMemberCardInfoTxt = "MemberCardInfo.txt";
const string CardEmpty = "00";
 const int CardNameBuf = 64;
```

ErrorCode.h

```
enum EnumErrorCode
{
// 취소
Cancel = 4444,

// recv관련 10~19 return
SUCCES_RECV = 10,
// recv 에러
ERROR_RECV = 11,

// enum으로 만들어라

// send관련 20~29 return
SUCCES_SEND = 20,
// send 에러
ERROR_SEND = 21,

////////// 기타 관련 60~89 return//////////
// 잘못 입력
ERROR_WRONG_INPUT = 69,
// 클라이언트 묻기 성공/
SUCCES_ASKCLIENT = 70,
// 클라이언트 통보 성공
 SUCCES_NOTIFICATION = 72,
// 로그인 성공
SUCCES_LOGIN = 74,
// 로그인 실패
ERROR_LOGIN = 75,
OVERLAPID = 76,
SUCCES_JOIN = 78,
ERROR_JOIN = 79,
SUCCES_MENUOUT = 80,
ERROR_MENUOUT = 81,
ERROR_GET_CHANNEL = 83,
ERROR_GET_ROOM = 85,
ERROR_ENTER_CHANNEL = 87,
SUCCES_COMMAND = 88,
ERROR_COMMAND = 89,
ERROR_EXIT_CHANNEL = 91,
ERROR_EXIT_ROOM = 93,
ERROR_MAKE_ROOM = 95,
ERROR_ENTER_ROOM = 97,
ERROR_DELETE_SOCKET = 99,
ERROR_SHARED_COUNT_ZORO = 101,
ERROR_MONEY_FAIL = 103,
SUCCES_COMMAND_MESSAGE = 104,
ERROR_GACHAR = 105,
SUCCES_GACHAR = 106,
 ERROR_NEWCARD = 107,
    ERROR_INCREASE_CARD = 109,
    ERROR_DECREASE_CARD = 111,
    ERROR_INIT_USER_CARD = 113
////////////////////////////////////////
// 예외처리가 안된 오류
ERROR_EXCEPTION = 9876
};
```

로그인/회원가입

CLobby

- - MessageStruct MS
- - int Login(SOCKET& clientSocket, CActionNetWork& actionNetWork)
- - int JoinMember(SOCKET& clientSocket, CActionNetWork& actionNetWork)
- - int ChooseMenu(char* message, SOCKET & clientSocket, CActionNetWork & actionNetWork)
- - int SendMenuInfo(SOCKET & clientSocket, CActionNetWork & actionNetWork)
- + CLobby()
- + CLobby(const CLobby&) = delete
- + CLobby& operator=(const CLobby&) = delete
- + MessageStruct& getMessageStruct()
- + int ActionServiceLobby(SOCKET& clientSocket, CActionNetWork& actionNetWork)

연결 담당

CReadyNetWork

- - SOCKET* hServSock
- + CReadyNetWork()
- + CReadyNetWork(const CReadyNetWork&) = delete
- + CReadyNetWork& operator=(const CReadyNetWork&) = delete
- + void Accept(SOCKET& hClientSock)

주고 받기 담당

CActionNetWork

- - MessageStruct sendClientMessage
- + CActionNetWork()
- + CActionNetWork(const CActionNetWork&) = delete
- + CActionNetWork& operator=(const CActionNetWork&) = delete
- + int sendn(CLink& clientInfo, CRoomManager& roomManager, CChannelManager& channelManager, int flags = 0)
- + int sendn(SOCKET& socket, MessageStruct& MS, int flags = 0)
- + int recvn(shared_ptr<CLink> clientInfo, CCommandController& commandController, int flags = 0)
- + int recvn(SOCKET& socket, MessageStruct& MS, int flags = 0)
- + int sendMyName(SOCKET& clientSocket, CLink& clientInfo, int flags = 0)
- + int askClient(SOCKET& clientSocket, MessageStruct& MS, char* question)
- + int notificationClient(SOCKET& clientSocket, MessageStruct& MS, char* notification)

카드 뽑기 담당

CGaChar

- - CGaChar()
- + CGaChar(const CGaChar& copy) = delete
- + CGaChar& operator=(const CGaChar& copy) = delete
- + int randNumber(int max = 100)
- + Card* gaCharResult(int range)

Client 받은 명령 처리

CCommandController

- - CRoomHandler RoomHandler;
- - CChannelHandler ChannelHandler;
- - CCardManager mCardManager
- - CGaChar mGacharHandler
- - int cardSelect(shared_ptr<CLink> shared_clientInfo, MessageStruct* sendClientMessage)
- - int readyCommand(shared_ptr<CLink> shared_clientInfo, CLink*& clientInfo, int& channelNum)
- - int enterRoom(shared_ptr<CLink> shared_clientInfo)
- - int changeChannel(shared_ptr<CLink> shared_clientInfo)
- - int makeRoom(char * command, shared_ptr<CLink> shared_clientInfo)
- - int outRoom(shared_ptr<CLink> shared_clientInfo)
- - int mergeRoom(shared_ptr<CLink> shared_clientInfo)
- - CRoomManager RoomManager
- - CChannelManager ChannelManager
- + CCommandController( )
- + CCommandController(const CCommandController&) = delete
- + CCommandController& operator=(const CCommandController&) = delete
- + int commandHandling(shared_ptr<CLink> shared_clientInfo, char* command, MessageStruct*
- + CChannelHandler& getChannelHandler()
- + CChannelManager& getChannelManager()
- + CRoomManager& getRoomManager()
- + bool deleteClientSocket(CLink& clientInfo)

Client 채널 입/출 담당

CChannelHandler

- + CChannelHandler()
- + CChannelHandler(const CChannelHandler&) = delete
- + CChannelHandler& operator=(const CChannelHandler&) = delete
- + bool moveNextChannel(shared_ptr<CLink> shared_clientInfo, CChannelManager& channelManager, int targetChannelNo)
- + bool exitChannel(CLink& clientInfo, CChannelManager& channelManager)

Client Room 만들기 입/출 담당

CRoomHandler

- + CRoomHandler()
- + CRoomHandler(const CRoomHandler&) = delete
- + CRoomHandler& operator=(const CRoomHandler&) = delete
- + bool exitRoom(CLink* clientInfo, CRoomManager* roomManager)
- + bool makeRoom(shared_ptr<CLink> shared_clientInfo, CRoomManager* roomManager, char* roomName)
- + bool enterRoom(shared_ptr<CLink> shared_clientInfo, CRoomManager* roomManager, int targetRoomNo)
- + char* returnRoomName(char* message)

Client 관리

CChannel (객체가 여러개)

- - LinkList ClientInfos
- - int ChannelNum
- - MUTEX RAII_ChannelMUTEX
- + CChannel(int channelNum);
- + CChannel(const CChannel&) = delete
- + CChannel& operator=(const CChannel&) = delete
- + int getChannelNum()
- + LinkListIt getIterMyInfoBegin()
- + LinkListIt getIterMyInfoEnd()
- + void pushClient(shared_ptr<CLink> shared_client)
- + LinkListIt eraseClient(LinkListIt myInfoListIt)

채널 관리

CChannelManager

- - ChannelList Channels
- - MUTEX RAII_ChannelManagerMUTEX
- - void pushChannel(shared_ptr<CChannel> shared_newChannel)
- + CChannelManager()
- + CChannelManager& operator=(const CChannelManager&) = delete
- + CChannelManager(const CChannelManager&) = delete
- + ChannelListIt getIterChannelBegin()
- + ChannelListIt getIterChannelEnd()
- + CChannel * getMyChannel(int ChannelNum)

Room 관리

CRoomManager

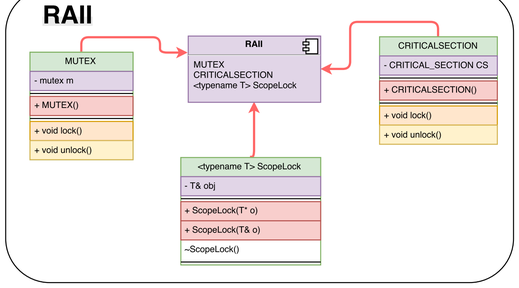
- - RoomList Rooms
- - MUTEX RAII_RoomManagerMUTEX
- + CRoomChannelManager()
- + CRoomManager(const CRoomManager&) = delete
- + CRoomManager& operator=(const CRoomManager&) = delete
- + void pushRoom(shared_ptr<CRoom> shared_newRoom)
- + RoomListIt eraseRoom(RoomListIt delRoom)
- + RoomListIt getMyRoomIter(int ChannelNum, int roomNum)
- + RoomListIt getIterRoomBegin()
- + RoomListIt getIterRoomEnd()
- + int getEmptyRoomNum()
- + bool isRoomListEmpty()

Client 관리

CRoom (객체가 여러개)

- - LinkList ClientInfos
- - char* RoomName
- - int ChannelNum
- - int RoomNum
- - int AmountPeople
- - MUTEX RAII_RoomMUTEX
- - void increasePeople()
- - void decreasePeople()
- + CRoom(int roomNum,int channelNum, char* roomName)
- + CRoom(const CRoom&) = delete
- + CRoom& operator=(const CRoom&) = delete
- + void pushClient(shared_ptr<CLink> shared_client)
- + LinkListIt eraseClient(LinkListIt myInfoListIt)
- + int getRoomNum()
- + int getChannelNum()
- + char* getRoomName()
- + LinkListIt getIterMyInfoBegin()
- + LinkListIt getIterMyInfoEnd()
- + int getAmountPeople()
- + bool mergeRoom(CRoom* targetRoom)

RAII



Client 정보 보관 담당

CLink (객체가 여러개)

- - char* Name
- - int MyRoomNum
- - int MyChannelNum
- - SOCKET& ClientSocket
- - MessageStruct MS
- - int MyMoney
- - MyCardList mMyCards
- - MUTEX RAII_LinkMUTEX
- + CLink(SOCKET& clientSocket, char* name_)
- + CLink(const CLink&) = delete
- + CLink& operator=(const CLink&) = delete
- + MessageStruct& getMessageStruct()
- + SOCKET& getClientSocket()
- + int getMyRoomNum()
- + int getMyChannelNum()
- + char* getMyName()
- + void setDefaultName()
- + void setMyRoomNum(int myRoomNum)
- + void setMyChannelNum(int myChannelNum)
- + bool isMoneyOKGaChar()
- + void pushCard(Card* card)
- + void changeName(const char* name, int start)
- + MyCardListIt GetIterMyCardBegin()
- + MyCardListIt GetIterMyCardEnd()
- + bool isEmptyCard()
- + void EmptyCard()
- + bool isHaveCard(int cardNum, MyCardListIt& cardIter)
- + void initCard(Card* card, int amount = 1, float exp = 0.0f)

구조체

카드 정보

struct Card

- + int cardNum
- + char* name
- + int prob
- + int stat
- + Card(int num, char* cardName, int prob_, int stat_)
- + Card(const Card& copy) = delete
- + Card& operator=(const Card& copy) = delete

메세지 정보

struct MessageStruct

- + char* message
- + size_t sendRecvSize
- + MessageStruct() :message(new char[BufSize])
- + MessageStruct& operator=(const MessageStruct& copyMS)
- + MessageStruct(const MessageStruct& copyMS) :sendRecvSize(copyMS.sendRecvSize)

내가 가지고 있는 Card 정보

MyCardInfo

- - shared_ptr<Card> card
- - int amount
- - float exp
- + MyCardInfo(const shared_ptr<Card>& card_, int amount_ = 1, float exp_ = 0.0f)
- + MyCardInfo(const MyCardInfo& copy) = delete
- + MyCardInfo& operator=(const MyCardInfo& copy) = delete
- + void increaseCard()
- + int getAmount()
- + char* getCardName()

정적 클래스 객체

static

- + CReadHandler* ReadHandlerStatic
- + CWriteHandler* WriteHandlerStatic
- + CCard* CardStatic

txt읽기 담당

CReadHandler

- - CReadHandler()
- - bool ReadUserCardLine(const string textFileName, const char* userName, vector<string>&
- + CReadHandler(const CReadHandler&) = delete
- + CReadHandler& operator=(const CReadHandler&) = delete
- + static CReadHandler* getInstance()
- + bool Search(const char* textFileName, bool isFullMatch, int count, ...)
- + vector<string> Parse(const string& str, const char& ch)
- + bool ReadUserCard(CLink* client, const string textFileName)

txt쓰기 담당

CWriteHandler

- - CWriteHandler()
- + CWriteHandler(const CWriteHandler&) = delete
- + CWriteHandler& operator=(const CWriteHandler&) = delete
- + static CWriteHandler* getInstance()
- + bool write(const char* textFileName, int count, ...)
- + int BeginToTargetUserLineCurserMoveSize(const char *
- + int TargetLineToUserCurserMoveSize(const char * targetSouce,
- + void WriteCard(const char * textName, int offset, int cardNum, int

Card 정보 담음

CCard

- - CardList mCards
- - CCard()
- + CCard(const CCard& copy) = delete
- + CCard& operator=(const CCard& copy) = delete
- + static CCard* getInstance()
- + void pushCard(shared_ptr<Card> card)
- + CardListIt getCardListIterBegin()
- + CardListIt getCardListIterEnd()

Error 처리 담당

CErrorHandler

- - static EnumErrorCode CriticalError(EnumErrorCode code)
- - static EnumErrorCode TakeError(EnumErrorCode code)
- - CErrorHandler()
- - CErrorHandler(const CErrorHandler&) = delete
- - CErrorHandler& operator=(const CErrorHandler&) = delete
- + static EnumErrorCode ErrorHandler(EnumErrorCode code)

Util.h

함수 이름

- + static void IntToAlphabet(const int num, char* chResult)