User

-userId : int
-username : string
-password : string

+User(int userId, string usr, string pwd) : void
+User(userId) : void
+getUserId() : int
+getUsername() : string
+getPassword() : string

UserManager

+UserManager(DbReferences dr) : void
+deleteUser(User usr) : boolean
+updateUsername(User usr, String username) : boolean
+updatePassword(User usr, String password) : boolean
+searchUserById(int uid) : User
+createUser(String usr, String pwd) : User
+getAllUsers() : UserArray

Group

-groupId : int
-name : string
-admin : User

+Group(int groupId, string name, User admin) : void
+Group(int groupId) : void
+getGroupId() : int
+getGroupName : string
+getAdmin() : User

GroupManager

+GroupManager(DbReferences dr) : void
+createGroup(String grpName, User admin) : Group
+deleteGroup(Group grp) : boolean
+updateGroupName(Group grp, String name) : boolean
+updatePassword(User usr, String password) : boolean
+searchGroupById(int gid) : Group
+searchGroupByName(string name): GroupArray
+searchGroupByAdmin(User user): GroupArray

GroupMemberManager

+GroupMemberManager(DbReferences dr) : void
+addMember(Group grp, User newMember) : User
+deleteMember(User member, Group grp) : boolean
+searchMemberById(int mid) : User
+searchMembersByGroup(Group grp): GroupMembersArray

DbReferences

+DB_NAME : string
+DB_HOST : string
+DB_PORT : string
+DB_USR : string
+DB_PWD : string
+TBL_USERS : string
+TBL_GROUPS : string
+TBL_GROUPMEMBERS : string
+TBL_MESSAGES : string
+TBL_GROUPMESSAGES : string

+DbReferences() : void

GroupMessage

- groupMessageId : int
- group: Group
- sender: User
- message: String
- timeStamp: String

+ GroupMessage(Group grp, User sender, String message, String timeStamp)
+ getGroupMessageId() : int
+ getSender() : User
+ getGroup() : Group
+ getMessage(): String
+ getTimeStamp(): String

GroupMessageManager

+ GroupMessageManager(DbReferences dr): void
+ createGroupMessage(Group grp, User sender, String msg) : GroupMessage
+ deleteGroupMessage(GroupMessage) : boolean
+ searchGroupMessageById(int grpMsgId) : GroupMessage
+ searchGroupMessagesBySender(User sender) : GroupMessageArray
+ searchGroupMessagesByTimestamp(String timeStamp) : GroupMessageArray

Message

-messageId : int
-sender : User
-recipient: User
-message: String
-timeStamp: String

+Message(User sender, User recipient, String message, String timeStamp)
+getMessageId() : int
+getSender() : User
+getRecipient() : User
+getMessage() : String
+getTimeStamp() : String

MessageManager

+MessageManager(DbReferences dr) : void
+createMessage(User sender, User Recipient, String msg) : boolean
+deleteMessage(Message msg) : boolean
+searchMessageById(int msgId) : Message
+searchMessagesBySender(User sender) : MessageArray
+searchMessagesByRecipient(User recipient): MessageArray
+searchMessageByTimestamp(String timeStamp): Message