

Account(UserName, Password, OnlineState)

Profile(Username, Email, Telephone, ImageLink, Visibility, NickName)

Message(MessageID, Message, TimeStamp)

Group(GroupName, FounderName, Description, ImageLink)

isContact(This_UserName, Contact_UserName)

sendRequest(From_UserName, To_UserName)

SendingSinge(Account_UserName, Message_ID)

SendingGroup(Account_UserName, Message_ID, Group_Name)

MemberOf(Account_UserName, Group_Name)

Profile [Username] \subseteq Account[UserName]

isContact[This_UserName] \subseteq Account[UserName]

isContact[Contact_UserName] \subseteq Account[UserName]

sendRequest [From_UserName] \subseteq Account[UserName]

sendRequest [To_UserName] \subseteq Account[UserName]

Group [FounderName] \subseteq Account[UserName]

SendingSinge[Account_UserName] \subseteq Account[UserName]

SendingSinge[Message_ID] \subseteq Message[MessageID]

SendingGroup[Account_UserName] \subseteq Account[UserName]

SendingGroup[Message_ID] \subseteq Message[MessageID]

SendingGroup[Group_Name] \subseteq Group [GroupName]

MemberOf[Account_UserName] \subseteq Account[UserName]

MemberOf[Group_Name] \subseteq Group [GroupName]