

# Anforderungsanalyse für einen Instant Messenger

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## 1.

**Entity:** Account  
**Relations:** ---  
**Attributes:** UserName  
Password  
OnlineState  
**Constraints:** UserName: Length  $\geq 6$  and  $\leq 20$   
Password: Length  $\geq 6$  and  $\leq 20$ , at least one number  
OnlineState: Only „Online“, „Offline“, „busy“, „do not disturb“ possible

## 2.

**Entity:** Profile  
**Relations:** A „Profile“ is an extension of an „Account“  
**Attributes:** UserName  
EMail  
Telephone  
ImageLink  
NickName  
Visible  
**Constraints:** EMail: contains an „@“ in it  
Telephone: only numbers divided by a „/“  
PictureLink: contains a hyperlink to an image  
Nickname: Length  $\leq 20$   
Visible: only „true“ or „false“ possible

## 3.

**Entity:** Contacts  
**Relations:** Accounts, which requested the contact request  
**Attributes:** UserName1  
UserName2  
**Constraints:** ---

## 4.

**Entity:** ContactRequest  
**Relations:** „Accounts“ can link with each other through a request  
**Attributes:** UserName1

**Constraints:**      UserName2  
                         Status  
                         Status: possible is „open“, „accepted“, „declined“

**5.**

**Entity:**              Group  
**Relations:**        Contacts can be organized in a group  
**Attributes:**        GroupName  
                         FounderName  
                         Description  
                         ImageLink  
**Constraints:**        GroupName: Length <= 20  
                         FounderName: should be a valid and existing user name  
                         Description: ---  
                         ImageLink: a hyperlink to an image

**6.**

**Entity:**              GroupMember  
**Relations:**        The sembers of a group are invited contacts of the group founder  
**Attributes:**        GroupName  
                         Member  
**Constraints:**        GroupName: an existing group name  
                         Member: a valid and existing user name

**7.**

**Entity:**              SingleMessage  
**Relations:**        A Message sent by one contact to a different contact  
**Attributes:**        Sender  
                         Receiver  
                         Message  
                         TimeStamp  
                         Read  
**Constraints:**        Sender: User name  
                         Receiver: User name  
                         Message: ---  
                         TimeStamp: Only a date an time allowed  
                         Read: Only „true“ and „false“ possible

**8.**

**Entity:**              GroupMessage  
**Relations:**        A Message sent by one contact to a group  
**Attributes:**        Sender  
                         ReceiverGroup  
                         Message  
                         TimeStamp

**Constraints:**

Sender: User name

ReceiverGroup: Group name

Message: ---

TimeStamp: Only a date and time allowed