restfrooms

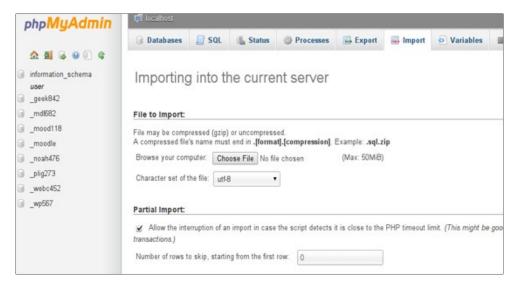
Installation

1.) Copy it to your htdocs directory and modify and call localhost/phpmyadmin to setup the database. For example, create the following database:

Databases



2.) Import the file backend.sql:



After the import you have the following tables:

friends
friend_invitations
roommembers
rooms
room_invitations
users

```
3.) Modify connect_db_settings.php:

define('DB_SERVER', "localhost");

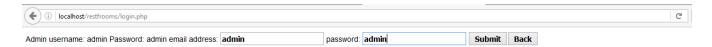
define('DB_PASSWORD',"");

define('DB_NAME',"backend");

define('DB_USER',"root");
```

If you use "backend" as database please enter "backend" here as well.

Call http://localhost/restfrooms - you will land on the login.php page:

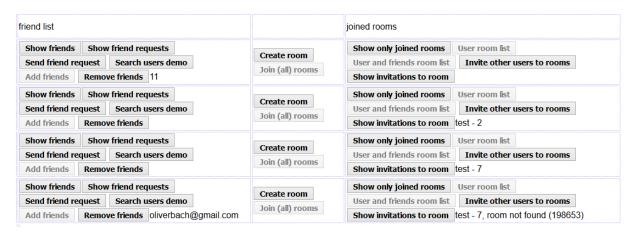


Password and username are already given: admin, admin

After logging in, you will get shown the default view, on the left side:

Action	id	email	title	first name	last name	md5 password	sex
Edit Delete	198610	oliverbach@gmail.com	Dr.	Oliver	Bachmann	b6d767d2f8ed5d21a44b0e5886680cb9	1
Edit Delete	198618	22	33	44	55	b6d767d2f8ed5d21a44b0e5886680cb9	0
Edit Delete	198619	33	44	55	66	b6d767d2f8ed5d21a44b0e5886680cb9	0
Edit Delete	198615	11	22	33	44	b6d767d2f8ed5d21a44b0e5886680cb9	0

And on the right side, for every entry, you have the following buttons:



1. EDIT

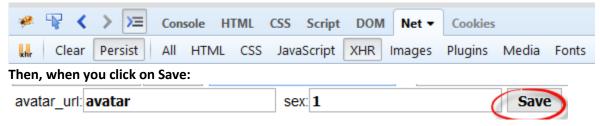
When you click on edit, the following input fields will appear at the bottom of the page:

avatar_url: avatar sex: 1 Save Logout Remove nonexisting room owners and friends

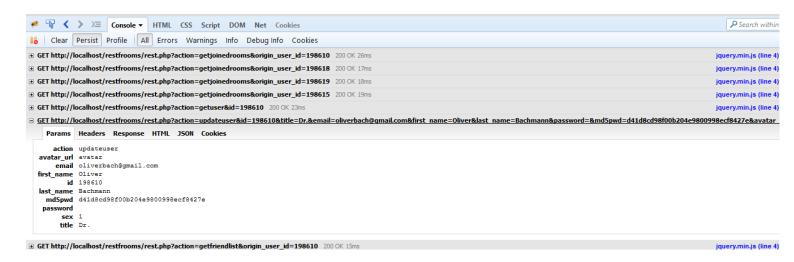
This is just an example. Here you can modify the field avatar_url and sex.

What happens when you click on Save?

Let's open Firebug, the Firefox debugger. Alternatively you can of course also use the Chrome Inspector or the Safari Developer Tool. To see the following, make sure that "Persist" in Firebug is turned on:



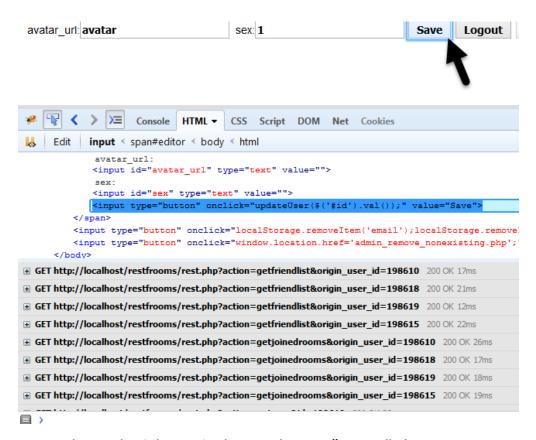
...you will see the following request:



The fields:

action = updateuser, avatar_url = avatar, email = <u>oliverbach@gmail.com</u>, first_name=Oliver, id=198610, last_name = Bachmann, md5pwd = d41d8cd98f00b204e9800998ecf8427e, password = (empty), sex = 1, title = Dr.

Use Firebug to look at the button save



Now we know what is happening here: updateUser() gets called.

We can simply click Ctrl-U or on View Source in the menu, to look at the Sourcecode.

First look at the sourcecode

```
http://localhost/restfrooms/a... X
( view-source:http://localhost/restfrooms/admin.php
  1 1 href="body.css" rel="stylesheet" type="text/css" media="screen" />
  2 <script src="js/jquery.min.js"></script>
  3 <script src="js/md5.js"></script>
  4 <script>
        function edit(id) {
 6
              $('#editor').show();
              $.ajax({
                             url: "rest.php?action=getuser&id="+id,
                             type: "GET",
                             async : false,
                             dataType: "json",
                             processData: false
                         }).done(function(responseText) {
                             $('#id').val(responseText.id);
                             $('#title').val(responseText.title);
                             $('#email').val(responseText.email);
                             $('#first_name').val(responseText.first_name);
                             $('#last_name').val(responseText.last_name);
                             $('#password').val('');
                             $('#avatar_url').val(responseText.avatar_url);
                             $('#sex').val(responseText.sex);
                         });
         function delete_user(id) {
              $.ajax({
                             url: "rest.php?action=delete user&id="+id,
                             type: "GET",
                             async : false,
                             dataType: "json",
                             processData: false
                         }).done(function(responseText) {
 41
                            $('#tr'+id).remove();
 44
                         });
 46
 47
 48
        function updateUser(id) {
             var id = $('#id').val();
             var title = $('#title').val();
             var email = $('#email').val();
             var first name = $('#first name').val();
             var last_name = $('#last_name').val();
             var password = $('#md5pwd').val();
             var md5pwd = CryptoJS.MD5(password);
             var avatar url = $('#avatar url').val();
             var sex = \overline{\$}('\#sex').val();
              ^ ____/
```

rest.php

In rest.php we mainly have it to do with evaluating GET parameters, and mainly depending on the action parameter do different actions, which are updating fields using SQL statements.

You will steadily encounter strcmp (string comparison) functions.

When fields get returned, sometimes the fields get JOINED with a different table, for example the user who owns the group or similar things:

```
if (strcmp($action, "getroomlist")==0) {
         $owner_user_id="";
         if (isset($_GET['owner_user_id'])) {
             $owner_user_id=$_GET['owner_user_id'];
         $joined_only="";
         if (isset($_GET['joined_only'])) {
             $joined_only=$_GET['joined_only'];
         $getinvitationinfo=false;
         $invitation_by="";
         if (isset($_GET['invitation_by'])) {
             $invitation_by=$_GET['invitation_by'];
             $getinvitationinfo=true;
         $friends="";
         if (isset($_GET['friends'])) {
             $friends=$_GET['friends'];
         if ($getinvitationinfo==true) { // Check if all parameters are set
             if ( (strlen($invitation_by)==0) || (strlen($owner_user_id)==0) ) {
                 die(json_encode(array("status" => 0, "msg" => "invitation_by or owner_user_id not set")));
         }
         $counter=0;
         $roomlist=array();
         $sql="SELECT r.id as r_id, r.*,u.id as u_id, u.* FROM rooms r LEFT JOIN users u ON (r.owner_user_id=u.id)";
        if (strcmp($joined_only,"1")==0) {
              $sql.=" WHERE (owner_user_id=".$owner_user_id.")";
              $friendids=getFriendIDS($owner_user_id);
              for ($i=0;$i<sizeof($friendids);$i++) {
                $sql.=" OR (owner_user_id=".$friendids[$i].")";
        } else if (strcmp($friends,"1")==0) {
             if (strlen($owner_user_id)>0) {
               $sql.=" WHERE ( (owner_user_id=".$owner_user_id.")";
              } else
                  $sql.="WHERE ( (false)";
              $friendids=getFriendIDS($owner_user_id);
              for ($i=0;$i<sizeof($friendids);$i++) {
                $sql.=" OR (owner_user_id=".$friendids[$i].")";
              $sql.=")";
         } else {
              if (strlen($owner_user_id)>0) {
               $sql.=" WHERE (owner_user_id=".$owner_user_id.")";
         }
```

What functionality does the app have to offer?

1. Edit and delete



When editing and deleting users the javascript calls edit and delete_user exist.

The functionality itself should be clear.

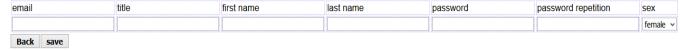
When a user gets deleted the following ajax request gets made:

```
    ★ GET http://localhost/restfrooms/rest.php?action=getfriendlist&origin_user_id=198610 200 OK 16ms
    ★ GET http://localhost/restfrooms/rest.php?action=getfriendlist&origin_user_id=198618 200 OK 21ms
    ★ GET http://localhost/restfrooms/rest.php?action=getfriendlist&origin_user_id=198619 200 OK 24ms
    ★ GET http://localhost/restfrooms/rest.php?action=getjoinedrooms&origin_user_id=198610 200 OK 16ms
    ★ GET http://localhost/restfrooms/rest.php?action=getjoinedrooms&origin_user_id=198618 200 OK 13ms
    ★ GET http://localhost/restfrooms/rest.php?action=getjoinedrooms&origin_user_id=198619 200 OK 15ms
    ★ GET http://localhost/restfrooms/rest.php?action=delete_user&id=198619 200 OK 17ms
    ▶ Params Headers Response HTML JSON Cookies
    {"status":1, "msg":"OK"}
```

As you can see, it's all ajax requests. When the status is 1, then also javascript will remove the field from the table, without reloading the table, just removing the that belongs to the removed entry.

Adding a new user

When a new user gets added, this also happens with an ajax request, the form gets loaded and is on register.php.



Let's have a look at what happens when pressing save.



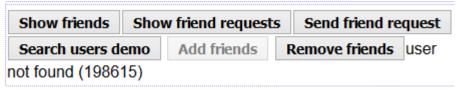
onclick is:

submit(\$('#email').val(), \$('#title').val(), \$('#first_name').val(), \$('#last_name').val(), \$('#md5pwd').val(), \$('#md5pwd2').val(), \$('#sex').val());

The function submit in register.php looks like this:

So, here we have it to do with the action adduser in register.php, because the action is "adduser".

Now how ajax calls work should be clear. Besides editing and deleting the provided functionality is also about friends:



Show friends – shows all your friends

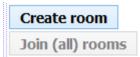
Send friend request – Ask others to become your friends

Show friend request – if others have sent you a friend request, you will be able to see who sent you a friend invitation

Search users demo - experimental, will be explained later

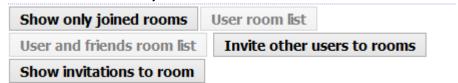
Remove friends - Of course you can also remove friends from your friend list

There is also functionality for creating and joining rooms:



Imagine we were Skype. You have got rooms when you talk with people. For example there is the room between you and your girlfriend, and the room between you and somebody you work with, and another room between you and somebody you don't know yet. All this are by definition rooms.

More room functionality:



Show only joined rooms – does exactly that. Only if you have joined rooms.

User room list - When you have created rooms, this will show all the rooms which you have created User and friend room list - will get explained later

Invite other users to rooms – You can have even rooms with more than 2 people. You could for example invite another person to the room with you and your girlfriend. That's what this is about.

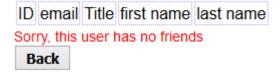
Show invitations to room – If other people, who possibly are your friends, invite you to their rooms, the rooms will show up here.

Show friends

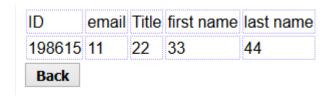
Note: Before clicking on anything make sure you are working with a new database install without any deleted users. In case you have deleted any users before, you will have to re-install the database so really the same users will show up here.

Let's click on the second user - id 198618, email: 22

This will show up, because he has no friends:



If you click "Show friends" on the first user – user id 198610, email: oliverbach@gmail.com – this will show up:



This is because oliverbach@gmail.com and the last user with the email "11" are friends.

To verify this, we can also show on the friends of the last user:

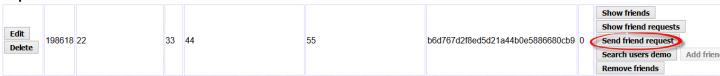


And who shows up?



Now it's clear 11 and oliverbach@gmail.com show up each other as friends.

Let's try sending a friend request. Since the second user with the email "22" has no friends, click on "Send friend request" there:



The following will show up:

All users that are not friends of 22, and also which are NOT invited already.

Action	id	email	title	first name	last name	avatar url	sex
send friend request	198619	33	44	55	66		0
send friend request	198615	11	22	33	44		0
Rack	100010			00			<u> </u>

Quite interesting is how this table was created. It's also created by making a call to the rest api:

Action	id	email	title	first name	last name	avatar url	sex
send friend request	198619	33	44	55	66		0
send friend request	198615	11	22	33	44		0



When we click now on "send friend request" of both users we first will get a textarea which we can use to give the other persons details about the request:

All users that are not friends of 22, and also which are NOT invited already.

198619	33	44	55	66		0
				oo		U
198615	11	22	33	44		0
 !		<i>;</i>	<u> </u>	!	<u> </u>	!

When we click on Send the following happens:

POST http://localhost/restfrooms/rest.php?action=sendf...origin_user_id=198618&destination_user_id=198619 200 OK 20m
Params Headers Post Response HTML JSON Cookies

{"status":1, "msg": "Created an invitation by the owner with the ID 198618 for 198619"}

Again, a rest call, with a success message. We do this for both users!

All users that are not friends of 22, and also which are NOT invited already.

Action	id	email	title	first name	last name	avatar url	sex
	198619	33	44	55	66		0
send friend request	198615	11	22	33	44		0

Back

So-to-say we invite the user with the email "11" too.



Success!

Now we can take a look at the received friend requests. 22 has invited the users with the email "33" and "11". Let's use the perspective of "33" and "11" now:

Action	id	email	title	first name	last name	md5 password	sex	r friend list
Edit	198610	oliverbach@gmail.com	Dr.	Oliver	Bachmann	b6d767d2f8ed5d21a44b0e5886680cb9	1	Show friends Show friend requests Send friend request Search users demo
Delete								Add friends Remove friends 11
Edit								Show friends Show friend requests
Delete	198618	22	33	44	55	b6d767d2f8ed5d21a44b0e5886680cb9	0	Send friend request Search users demo
DCCCC								Add friends Remove friends
Edit								Show friends Show friend requests
Delete	198619	33	44	55	66	b6d767d2f8ed5d21a44b0e5886680cb9	0	Send friend request Search users demo
Delete								Add friends Remove friends
Edit								Show friends Show friend requests
	198615	11	22	33	44	b6d767d2f8ed5d21a44b0e5886680cb9	0	Send friend request Search users demo
Delete								Add friends Remove friends oliverbach@gmail.com

The results, for 33:

reason	direction	טו	email	title	first name	last name	Action
ICH BIN NEU	outgoing	19872	oliverbach@gmail.com	Dr.	Oliver	Oliver	Confirmed
	incoming	19874	22	33	44	44	confirm

The result for 11:

reason	direction	ID	email	title	first name	last name	Action
ADADADDA	incoming	19873	oliverbach@gmail.com	Dr.	Oliver	Oliver	Confirmed
Hello	incoming	19875		33	44	44	confirm
Back				;	!	·	

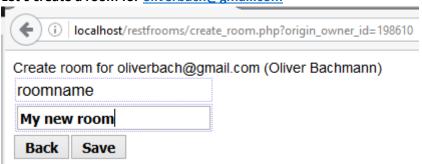
The text on the very left side should be the text you inserted as friend request reason inside the textarea. When the users 11 and 33 have confirmed the friend requests of 22, 33 and 11 should show up in the listing on the main page as friends of user 11:

Edit	1								Show friends	Show	friend requests
		98618	22	33	44	55	b6d767d2f8ed5d21a44b0e5886680cb9 0		Send friend req	uest	Search users demo
Delet	e								Add friends	Remov	e friends 11, 33
Edit									Show friends	Show	friend requests
Delet		98619	33	44	55	66	b6d767d2f8ed5d21a44b0e5886680cb9 0		Send friend req	uest	Search users demo
Delet	е								Add friends	Remov	e friends 22
									Show friends	Show	friend requests
Edit	1	98615	11	22	33	44	b6d767d2f8ed5d21a44b0e5886680cb9 0		Send friend req	uest	Search users demo
Delet	e '	00010			00	••	bod707d2loed3d21844b0e3880080Cb9 0		Add friends	Remov	e friends oliverbach@gmail.com,
									22		

Also, 33 and 11 should have 22 as friend.

Creating a room

Let's create a room for oliverbach@gmail.com



After creating a room the view changes to the view which appears when pressing "Show rooms" on a user on the main page.

The new room will show up:

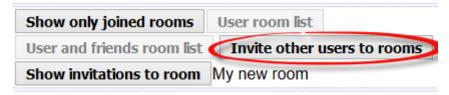
ID	Name	Members	Owner		
198621	test - 1		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198622	test - 2	22	oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198624	test - 3		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198627	test - 4		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198628	test - 5		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198629	test - 6		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198630	test - 7	33,11	oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198631	test - 8		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198632	test - 9		oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
198633	My new room	oliverbach@gmail.com	oliverbach@gmail.com (Oliver Bachmann)	Delete room	Edit room
Back					

Editing and deleting the room is possible. All happens by making ajax calls to the rest.php file.

You can reach this page by clicking here on the main page:

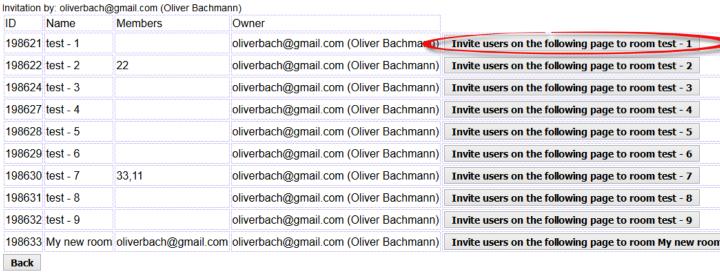


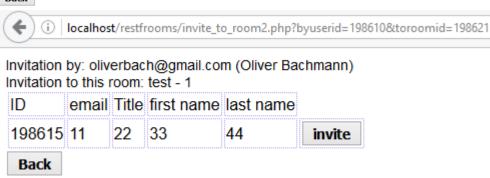
The only member inside the newly created room is <u>oliverbach@gmail.com</u>. If we want other people to join in, we have to click here:



Invite other users to room

First you have to choose to which room you would like to invite somebody





Only the friends of oliverbach@gmail.com should show up here. How does this list get created? In effect, it are three ajax calls:

```
window.onload = function() {
    getUserInfo(198610, function(responseText) {
        $('#email').html(responseText.email);
        $('#first_name').html(responseText.first_name);
        $('#last_name').html(responseText.last_name);
    });
    getRoomInfo(198621, function(responseText) {
        $('#roomname').html(responseText.name);
    });
    getFriendList(198610, "INVITE", 198610, 198621);
}
```

The first function getUserInfo in users.js:

The function callback is also specified here:

}

```
<script>
  window.onload = function() {
     getUserInfo(198610, function(responseText) {

        $ ('#email').html(responseText.email);
        $ ('#first_name').html(responseText.first_name);
        $ ('#last_name').html(responseText.last_name);
    });
     getRoomInfo(198621, function(responseText) {
        $ ('#roomname').html(responseText.name);
    });
     getFriendList(198610, "INVITE", 198610, 198621);
}
</script>
```

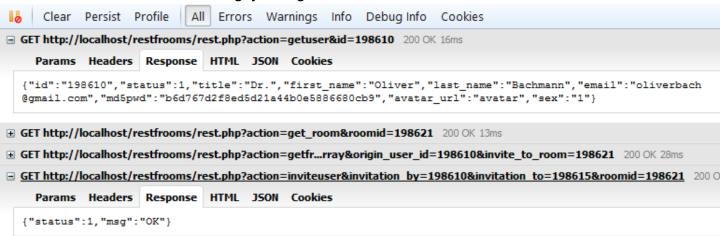
What it does here, that is populating the divs with content from responseText.

We make 3 asynchronous ajax calls. We also want to show the room name, so we call the function getRoomInfo from rooms.js:

Again, the information from responseText is used to populate the fields in the table. Mainly showing the room name:



When we click on "invite" the following ajax call gets made:



rest.php?action=inviteuser&invitation_by=198610&invitation_to=198615&roomid=198621

The screen will change to the following:



Now we have invited the user with the email "11" to the room test -1 – and the initiator is <u>oliverbach@gmail.com</u> – now let's have a look if we can see the invitation somewhere.



When we click on "Show invitations to rooms" we indeed get shown the invitation we just initiated:

Room nar	ne direction ID	Q	going to/coming from email	going to/coming from Title	going to/coming from First name	going to/coming from Last name	Action	
test - 2	incoming 1986	653 c	oliverbach@gmail.com	Dr.	Oliver	Oliver	Confirm	Delete invitation
test - 1	incoming 1986	354 c	oliverbach@gmail.com	Dr.	Oliver	Oliver	Confirm	Delete invitation
Back								

Don't ask me why there is also an invitation to room test -2 ... important here is that the invitation to test -1 exists. We can now confirm the invitation to the room test -1:



Now the following ajax call will get made:



We should now take a look at the room that we just invited to.

Edit Delete	198615 11	22 33	44	b6d767d2f8ed5d21a44b0e5886680cb9 0	Show friends Show friend requests Send friend request Search users demo Add friends Remove friends oliverbach@gmail.com,	Create room Join (all) rooms	Show only joined rooms User and friends room list Invite other users to rooms Show invitations to room lest - 7, room not found (198653), test - 1
					22		

Remember: This is user 11. We are now part of test -1. Let's click on this, and you will get to see the joined rooms for user 11:



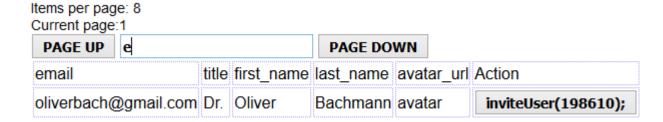
"Show only joined rooms" is the killer feature, which means that with it, you can check if all invitations were properly made.

Search users demo

You will get to see this screen:

Items per page: 8 Current page:1									
PAGE UP	PAGE DOWN								
email title first_name last_name avata	r_url Action								

Whatever you type in will get searched. The character "e" will be the most successful string to search for. When we type that we get to see these users:



Since there is by default only one user with the character "e" in it it would be a good time to test another button on the main page, which adds more dummy users to the database.

Click on this button on the main page:



And all of a sudden we have more users, very dummy ones indeed:

Edit 1 Delete 1	198621	USER13	Herr	first_nameecAfEabDeAaafCB	last_namebabfdAFDAaCeaEB	c51ce410c124a10e0db5e4b97fc2af39	0	Show friends Show friend requests Send friend request Search users demo Remove friends	Create room Join (all) rooms	Show only joined rooms User and friends room list Invite other users to rooms Show invitations to room
dit Delete	198622	USER14	Herr	first_nameeDbbAFcebBaaEEc	last_namebEDCcEADfcaBeAB	aab3238922bcc25a6f606eb525ffdc56	0	Show friends Show friend requests Send friend request Search users demo Remove friends	Create room Join (all) rooms	Show only joined rooms User room list User and friends room list Invite other users to rooms Show invitations to room
dit elete	198623	USER15	Herr	first_nameBcabCefEeaaDBEf	last_namebEEFDcBdaFdBEbf	9bf31c7ff062936a96d3c8bd1f8f2ff3	0	Show friends Show friend requests Send friend request Search users demo Add friends Remove friends	Create room Join (all) rooms	Show only joined rooms User room list User and friends room list Invite other users to rooms Show invitations to room
dit elete	198624	USER16	Herr	first_nameBfcbBDbadbfbEda	last_namebFCfaFcBfAaFADb	c74d97b01eae257e44aa9d5bade97baf	0	Show friends Show friend requests Send friend request Search users demo Add friends Remove friends	Create room Join (all) rooms	Show only joined rooms User and friends room list Invite other users to rooms Show invitations to room
lit elete	198625	USER17	Herr	first_namefEADCfaEfaFDeAf	last_nameceCeCEAEFEBBdDb	70efdf2ec9b086079795c442636b55fb	0	Show friends Show friend requests Send friend request Search users demo Add friends Remove friends	Create room Join (all) rooms	Show only joined rooms User room list User and friends room list Invite other users to rooms Show invitations to room
lit								Show friends Show friend requests	Create room	Show only joined rooms User room list User and friends room list

When you look for "e" now you will get a bunch of matching pairs:

Items per page: 8 Current page:1							
			PAGE DOWN				
email	title	first_name		last_name	avatar_url		
oliverbach@gmail.com	Dr.	Oliver		Bachmann	avatar	inviteUser(198610);	
USER12	Herr	first_namee	efbFeBfcAABcEc	last_namefDAbDcedfaEaeAD	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198620);	
USER13	Herr	first_namee	cAfEabDeAaafCB	last_namebabfdAFDAaCeaEB	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198621);	
USER14	Herr	first_nameel	Dbb A FcebBaaEEc	last_namebEDCcEADfcaBeAB	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198622);	
USER15	Herr	first_nameB	cabCefEeaaDBEf	last_namebEEFDcBdaFdBEbf	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198623);	
USER16	Herr	first_nameB	fcbBDbadbfbEda	last_namebFCfaFcBfAaFADb	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198624);	
USER17	Herr	first_namefE	ADCfaEfaFDeAf	last_nameceCeCEAEFEBBdDb	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198625);	
USER18	Herr	first_nameE	CCBefaceeCefDc	last_nameeaAACBabfBaacBa	https://www.google.de/logos/doodles/2015/evidence-of-water-found-on-mars-5652760466817024.2-hp.gif	inviteUser(198626);	

Now you should know

- 1. How to create new rooms
- 2. How to invite others to new rooms
- 3. How to confirm invitations

The same is true for friend invitations / requests.

Outstanding are the features "show joined rooms" and "show friends", with them you can always check if the other buttons were successful.

Also, greyed out buttons do not mean that they do not work, they only mean that they are not really important. You can get to understand most of the features by clicking on the black buttons.