

Django

1.9

Middleware

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Hi folks;

If you're wondering about how Django is working the period of time between query and response:

please read next page

else:

break

First of all; I do not want to bore you with details.

You know, if user call a link (web browser, wget, command etc.)

httpserver (apache, nginx or etc..) -> wsgi -> settings.py -> urls.py -> views.py -> html (xml, json or etc.)

httpserver and wsgi are optional.

For basic example;

<http://127.0.0.1:8000>

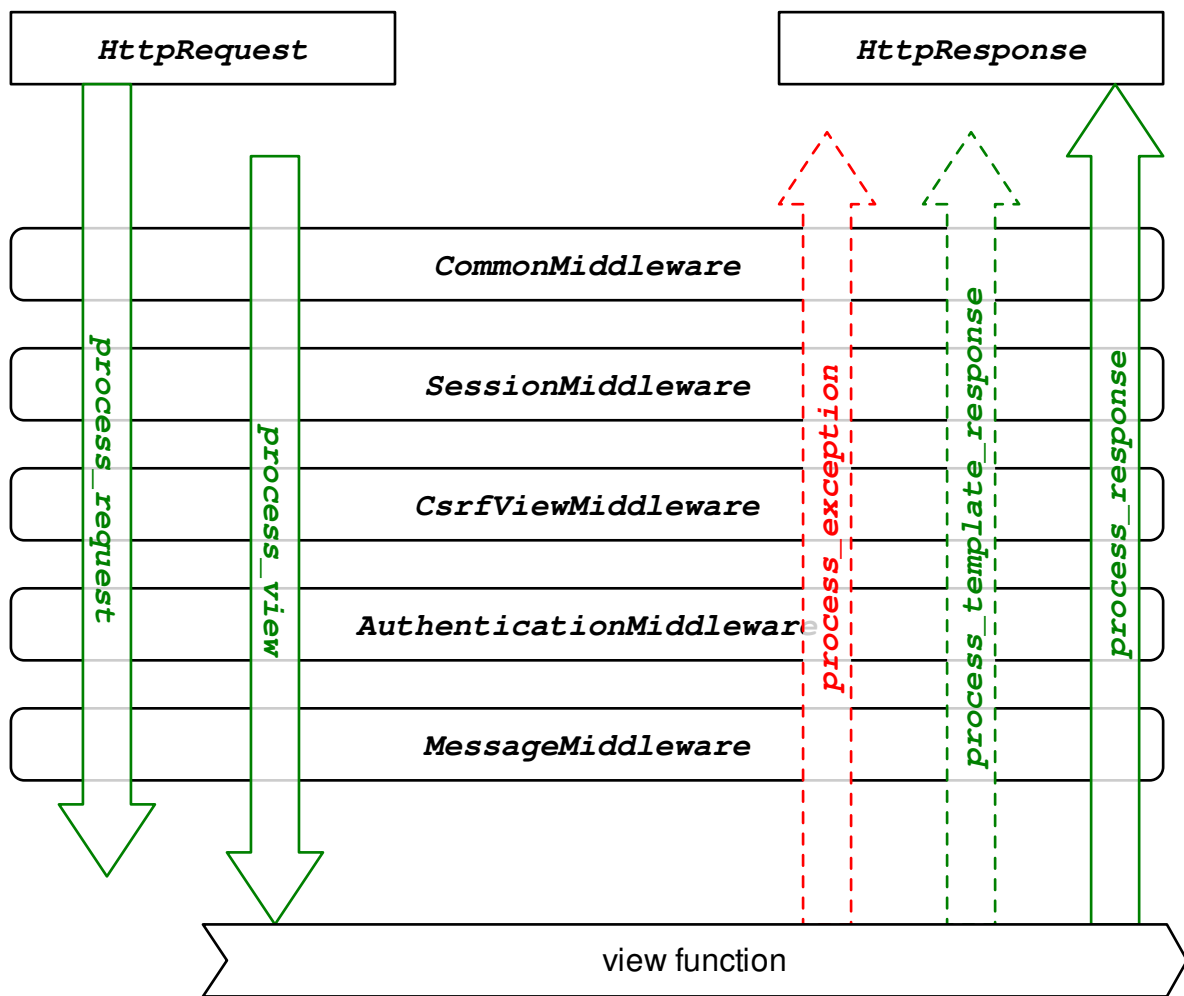
1. urls.py (*url(r'^\$', mainpage),*)
2. views.py (*def mainpage*)
3. index.html

urls.py

```
urlpatterns = [  
    url(r'^$', mainpage),  
]
```

views.py (or urls.py)

```
from django.shortcuts import render  
def mainpage(request):  
    print "anasayfa"  
    return render(request, 'index.html')
```



So easy to understand but actually, Django has middleware ways for request-response process.

If you want to call some function for all request and response than you have to use your custom middleware functions.

Lets go to write our first function.

/home/muslu/django/myproject/myapp/custom_middleware.py

custom_middleware.py

-*- coding: utf-8 -*-

from django.core.exceptions import PermissionDenied

class IPControlMiddleware(object):

def process_request(self, request):

iplist = ['192.168.1.1', '127.0.0.1', '0.0.2.35']

ip = request.META.get('REMOTE_ADDR')

print "process_request = sorgu, ", ip

if ip not in iplist:

raise PermissionDenied

return None

def process_response(self, request, response):

print "process_response = yanıt, ", request.user

return response

settings.py

```
MIDDLEWARE_CLASSES = [  
    'django.middleware.security.SecurityMiddleware',  
  
    'django.contrib.sessions.middleware.SessionMiddleware',  
    'django.middleware.common.CommonMiddleware',  
    'django.middleware.csrf.CsrfViewMiddleware',  
  
    'django.contrib.auth.middleware.AuthenticationMiddleware',  
  
    'django.contrib.auth.middleware.SessionAuthenticationMiddleware',  
  
    'django.contrib.messages.middleware.MessageMiddleware',  
    ,  
  
    'django.middleware.clickjacking.XFrameOptionsMiddleware',  
    ,  
    'myapp.custom_middleware.IPControlMiddleware'  
]
```

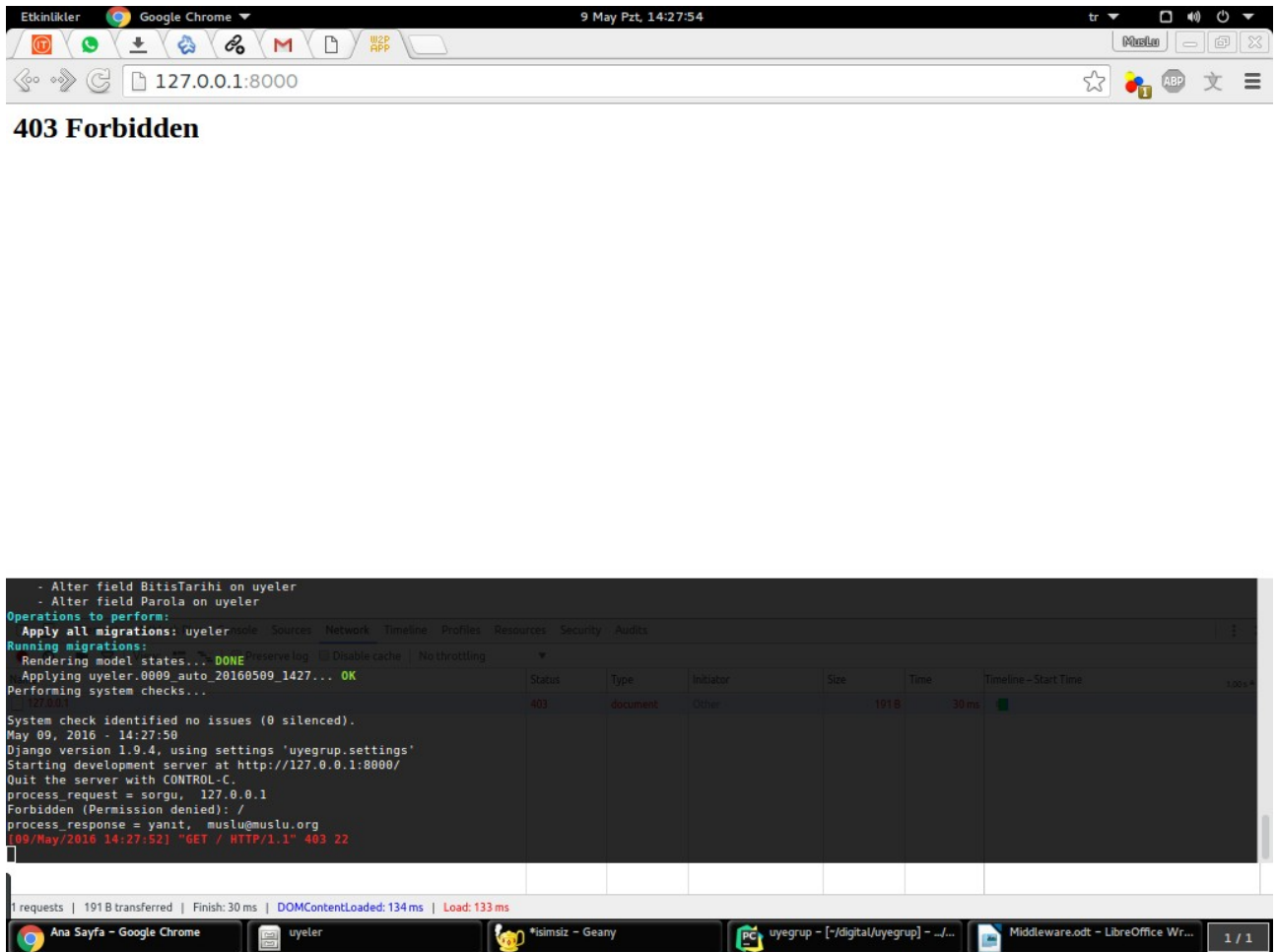
Note: This MIDDLEWARE_CLASSES ranking list is important.

We have 2 functions for request and response. When we trigger link request function is running and check our ip address in list or not. If our ip is in list return None but if our ip is not in list return 403 to browser.

1. custom_middleware.py
2. IPControlMiddleware
3. process_request
4. urls.py
5. views.py
6. process_response

This function (request) running our all applications views functions and check current ip address in list and return page or 403.

Lets test.



Oops. Forbidden. Our ip address is not in list.

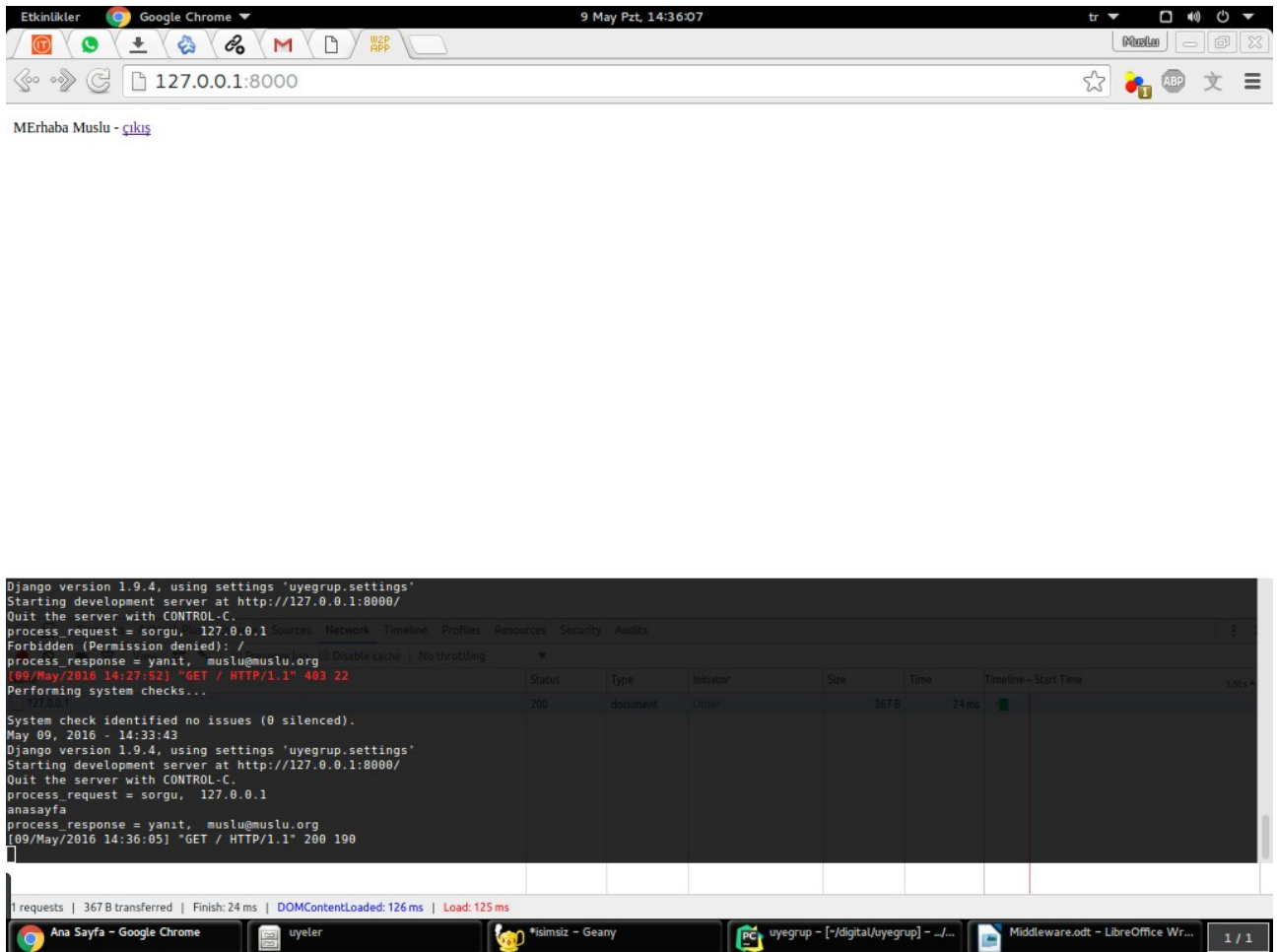
Add '127.0.0.1' to iplist in custom_middleware and test again.

Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.

process_request = sorgu, 127.0.0.1
anasayfa

process_response = yanit, muslu@muslu.org

[09/May/2016 14:36:05] "GET / HTTP/1.1" 200 190



Ok. Now, add 2 new functions and test again in new links.

views.py

```
@login_required(login_url='/login/')
def mainpage(request):
# print "anasayfa"
print "mainpage"
    return render(request, 'index.html')

def logout(request):
    logout(request)
print "login, go to main page ", mail, parola
#print "login, anasayfaya yönlendir, ", mail, parola
    return redirect("/")

@csrf_protect
def login(request):

    logout(request)

    mail = parola = ""

    if request.POST:
        mail = request.POST['mail']
        parola = request.POST['parola']

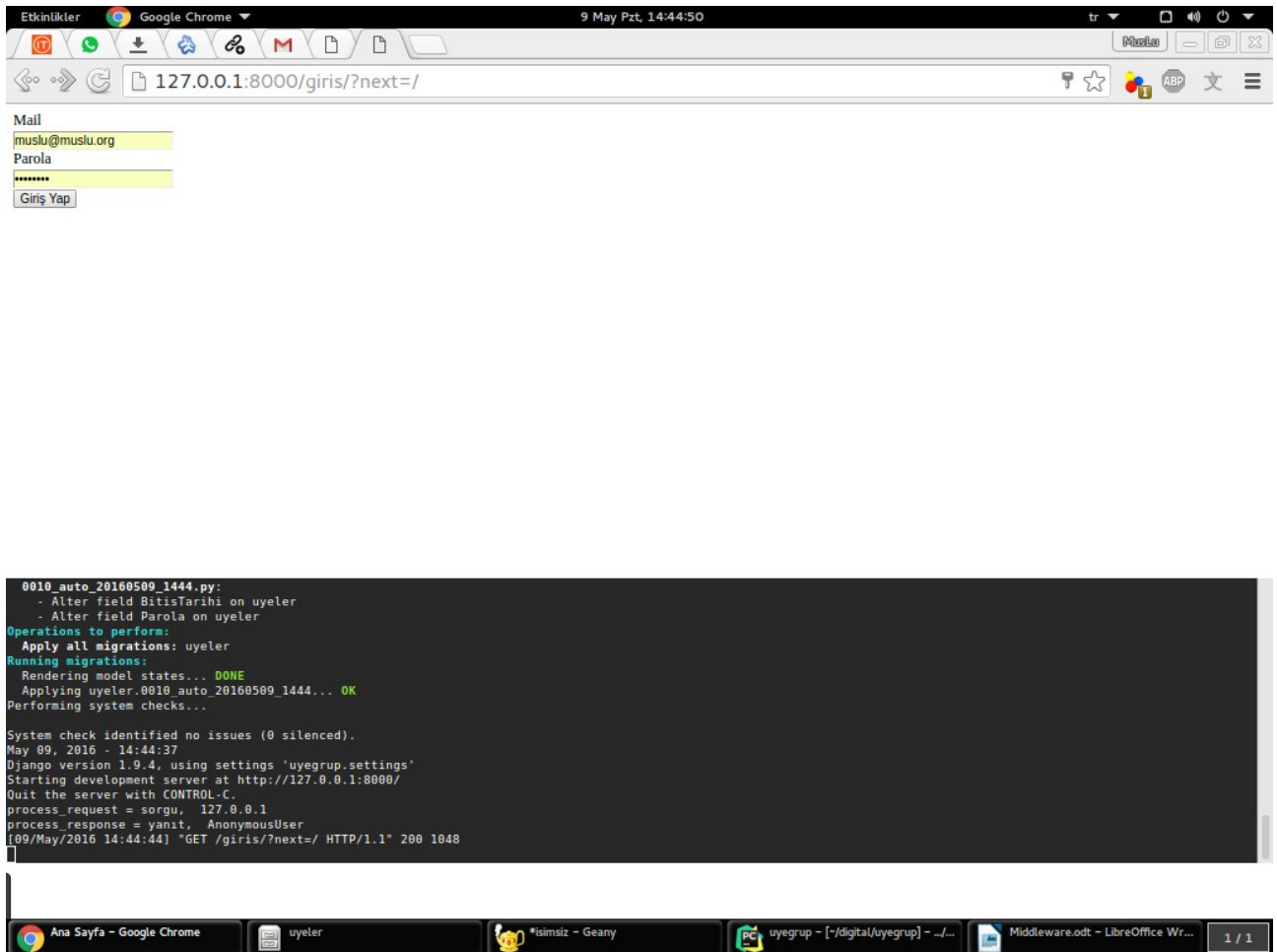
print "login, go to main page ", mail, parola
#print "login, anasayfaya yönlendir, ", mail, parola

    user = authenticate(username=mail, password=parola)
    if user is not None:
        if user.is_active:
            login(request, user)
            return HttpResponseRedirect('/')
    return render(request, 'login.html')
```

urls.py

```
urlpatterns = [  
    url(r'^$', ilksayfa),  
    url(r'^login/$', login),  
    url(r'^logout/$', logout),  
    url(r'^admin/', admin.site.urls),]
```

Lets try again.



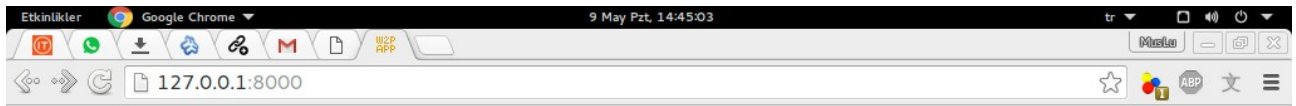
Starting development server at <http://127.0.0.1:8000/>

Quit the server with CONTROL-C.

process_request = sorgu, 127.0.0.1

process_response = yanıt, AnonymousUser

[09/May/2016 14:44:44] "GET /giris/?next=/ HTTP/1.1" 200 1048



MERhaba Muslu - çıkış

```
Performing system checks...
System check identified no issues (0 silenced).
May 09, 2016 - 14:44:37
Django version 1.9.4, using settings 'uyegrup.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
process_request = sorgu, 127.0.0.1
process_response = yanıt, AnonymousUser
[09/May/2016 14:44:44] "GET /gis/?next=/ HTTP/1.1" 200 1048
process_request = sorgu, 127.0.0.1
gis, anasayfaya yönlendir, muslu@muslu.org TX1J8PRO
process_response = yanıt, muslu@muslu.org
[09/May/2016 14:45:01] "POST /gis/ HTTP/1.1" 302 0
process_request = sorgu, 127.0.0.1
anasayfa
process_response = yanıt, muslu@muslu.org
[09/May/2016 14:45:01] "GET / HTTP/1.1" 200 190
```

[09/May/2016 14:44:44] "GET /gis/?next=/ HTTP/1.1" 200 1048

process_request = sorgu, 127.0.0.1

gis, anasayfaya yönlendir, muslu@muslu.org TX1J8PRO

process_response = yanıt, muslu@muslu.org

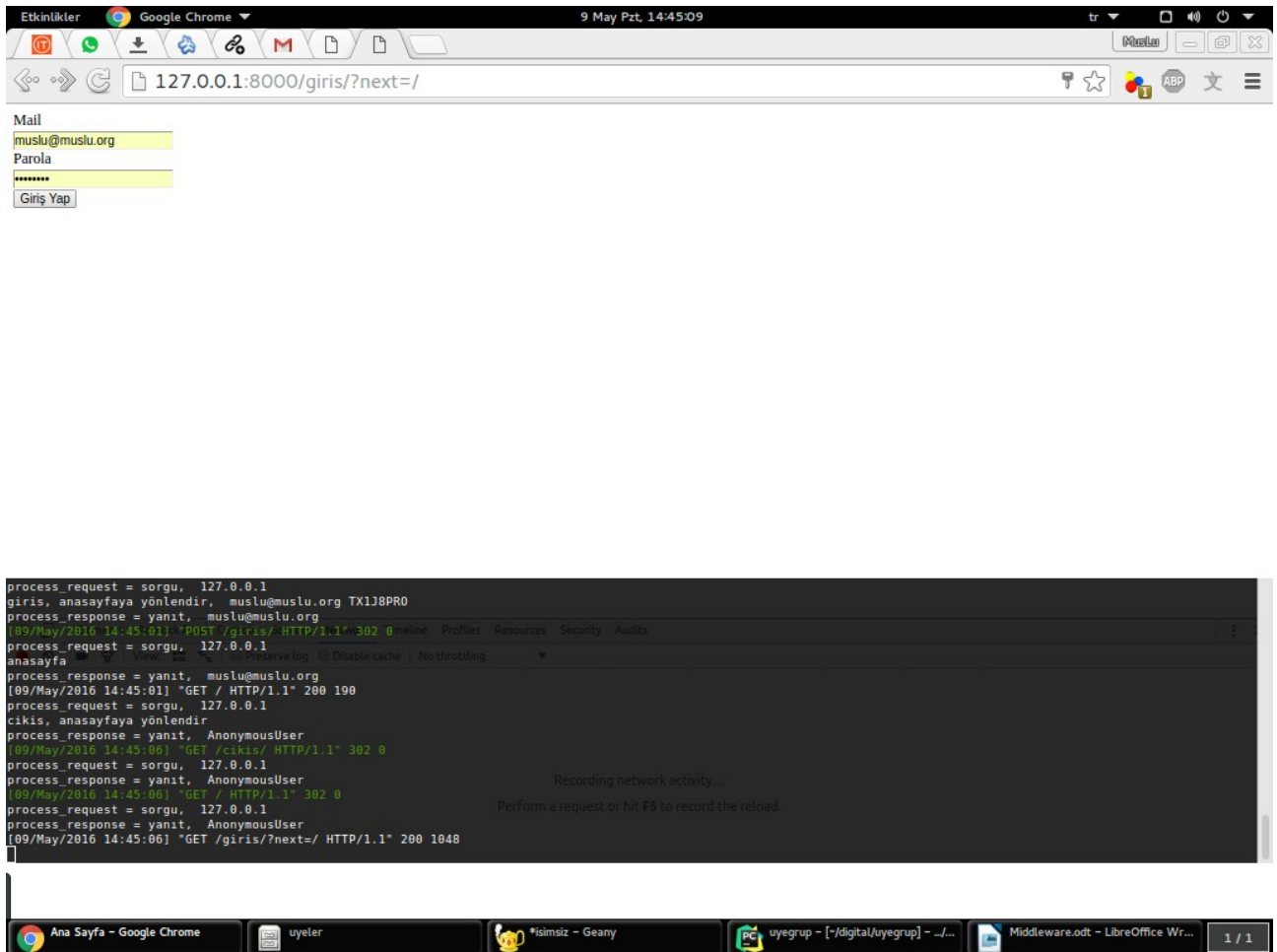
[09/May/2016 14:45:01] "POST /gis/ HTTP/1.1" 302 0

process_request = sorgu, 127.0.0.1

anasayfa

process_response = yanıt, muslu@muslu.org

[09/May/2016 14:45:01] "GET / HTTP/1.1" 200 190



[09/May/2016 14:45:01] "GET / HTTP/1.1" 200 190

process_request = sorgu, 127.0.0.1

cikis, anasayfaya yönlendir

process_response = yanıt, AnonymousUser

[09/May/2016 14:45:06] "GET / HTTP/1.1" 302 0

process_request = sorgu, 127.0.0.1

process_response = yanıt, AnonymousUser

[09/May/2016 14:45:06] "GET / HTTP/1.1" 302 0

process_request = sorgu, 127.0.0.1

process_response = yanıt, AnonymousUser

[09/May/2016 14:45:06] "GET / HTTP/1.1" 200 1048

add request.path for which url is calling.

That's all folks..

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