

## 验证码

在用户登录，注册以及一些敏感操作的时候，我们为了防止服务器被暴力请求，或爬虫爬取，我们可以使用验证码进行过滤，减轻服务器的压力。

验证码需要使用绘图 Pillow

pip install Pillow

核心 I

`Image`, `ImageDraw`, `ImageFont`

### 绘制流程

`background = (10,20,30)` RGB颜色

初始化画布 `image = Image.new('RGB', (100,50), background)`

获取画布中画笔对象

`draw = ImageDraw.Draw(image)`

绘制验证码，随机四个

`font = ImageFont.truetype('path', size)`

`fontcolor = (20,40,60)`

`draw.text((x,y), 'R', font, fontcolor)`

```
STATICFILES_DIRS = [
    os.path.join(BASE_DIR, 'static'),
]
FONT_PATH = os.path.join(BASE_DIR, 'static/fonts/A')

def get_code(request):
    # 初始化画布，初始化画笔
    mode = "RGB"
    size = [200, 100]
    red = get_color()
    green = get_color()
    blue = get_color()
    color_bg = (red, green, blue)
    image = Image.new(mode=mode, size=size, color=color_bg)
```

```

verify_code = generate_code()

for i in range(4):
    fill = (get_color(), get_color(), get_color())
    imagedraw.text(xy=(50*i, 0), text=verify_code[i], font=imagefont, fill=fill)

for i in range(10000):
    fill = (get_color(), get_color(), get_color())
    xy = (random.randrange(201), random.randrange(100))
    imagedraw.point(xy=xy, fill=fill)

fp = BytesIO()
image.save(fp, "png")

return HttpResponse(fp.getvalue(), content_type="image/png")

def get_color():
    return random.randrange(256)

def generate_code():
    source = "qwertyuiopasdfghjklzxcvbnm1234567890QWERTYUIOPASDFGHJKLZXCVBNM"
    code = ""

    for i in range(4):
        code += random.choice(source)

    return code

imagefont = ImageFont.truetype(settings.FONT_PATH, 100)

verify_code = generate_code()

request.session['verify_code'] = verify_code

```

```

@csrf_exempt
def login(request):
    if request.method == "GET":
        return render(request, 'login.html')
    elif request.method == "POST":
        receive_code = request.POST.get("verify_code")
        store_code = request.session.get("verify_code")

        if receive_code.lower() != store_code.lower():
            return redirect(reverse('app:login'))
        return HttpResponse("登录成功")

```

```

1 {% load static %}
2 <!DOCTYPE html>
3 <html lang="en">
4 <head>
5     <meta charset="UTF-8">
6     <title>Login</title>
7
8     <script type="text/javascript" src="https://cdn.bootcss.com/jquery/1.11.1/jquery.js"></script>
9
10    <script type="text/javascript" src="{% static 'js/login.js' %}"></script>
11
12 </head>
13 <body>
14
15 <form action="{% url 'app:login' %}" method="post">
16
17     <span>用户名:</span> <input type="text" name="username" placeholder="精神精神">
18
19     <br>
20     <span>验证码:</span><input type="text" name="verify_code" placeholder="请输入下图中的验证码">
21     <br>
22     
23     {# #}
24
25     <br>
26
27     <button>精神一下</button>
28
29 </form>
30
31 </body>
32 </html>

```

```
ss.py views.py login.html login.js students_with_page.html utils.py settings.py
$(function () {
    $("img").click(function () {
        console.log("点到我了");
        $(this).attr("src", "/app/getcode/?t=" + Math.random());
    })
})
```



