**Homework VI Report**

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Course: Sp.20 Software Engineering Web Application

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**Requirement:**

1. MongoDB service
2. The default mongo database is running on local host with port 27017, you could change the access in the server.py
3. Import Flask library
4. Import pymongo library
5. Import random library

**Server source code:**

**#Server based on Flask**  
from flask import Flask,render\_template,url\_for,request,redirect,abort  
from werkzeug.datastructures import ImmutableMultiDict  
import pymongo  
import random  
  
def invitation\_code():  
 ret = ""  
 for i in range(6):  
 num = random.randint(0, 9)  
 # num = chr(random.randint(48,57))  
 letter = chr(random.randint(97, 122))#Lower class  
 Letter = chr(random.randint(65, 90))#Uper class  
 s = str(random.choice([num,letter,Letter]))  
 ret += s  
 return ret  
  
app=Flask(\_\_name\_\_)  
  
@app.route('/')  
def index():  
 return render\_template('index.html')  
  
# @app.route('/login',methods=['POST'])  
# def login():  
# user = request.form['nm']  
# return redirect(url\_for('success',name=user))  
  
@app.route('/signin',methods=['GET','POST'])  
def sign\_in():  
 if request.method=='GET':  
 return render\_template('signin.html')  
 elif request.method=='POST':  
 invitation=request.form['invitation\_num']  
 guest=collection.find\_one({'invitation\_num':invitation})  
 if(guest):  
 return render\_template('login.html',guest=guest)  
 else:  
 return render\_template('fault.html')  
 else:  
 abort(400)  
  
@app.route('/signup',methods=['GET','POST'])  
def sign\_up():  
 if request.method == 'GET':  
 return render\_template('signup.html')  
 elif request.method == 'POST':  
 new\_guest=request.form  
 new\_guest=new\_guest.to\_dict(flat=True)  
 new\_guest['invitation\_num']=invitation\_code()  
 while(collection.find\_one({'invitation\_num':new\_guest['invitation\_num']})):  
 new\_guest['invitation\_num'] = invitation\_code()  
 collection.insert\_one(new\_guest)  
 return render\_template('success.html',new\_guest=new\_guest)  
 else:  
 abort(400)  
  
if \_\_name\_\_=='\_\_main\_\_':  
 client = pymongo.MongoClient(host='localhost', port=27017)  
 db = client.guest  
 collection = db.guest\_list  
 app.run(debug=True)

Running result:

手机屏幕截图

描述已自动生成

Fig 1-1 Main page

**Fig 1-1** shows the main page of my server, I simulate how to register and login process. There are two questions shown in this page, if you are a new guest without a INVITATION you need to sign up first.

手机屏幕的截图

描述已自动生成

Fig 1-2 Sign Up page

**Fig 1-2** is the sign up page where you need to fill a form. You do not have to input your real data since I am not setting restriction to them. After you type your fake or real information on this, by clicking “Next” button you will finish your sign up to be a new guest.

手机屏幕截图

描述已自动生成

Fig 1-3 Successful Sign Up

**Fig 1-3** shows when you finish your sign up process you will receive a sentence “Hello your input last page” with an INVITATION code. All your sign up information including your invitation code will be stored into my database. Please remember and copy your invitation code to sign in.

手机屏幕截图

描述已自动生成

Fig 1-4 Database status

**Fig 1-4** shows two data I have already collected in my database. **You should be reminded that this is a local database, which means you cannot directly use.** If you need to run my code on your computer please check the **requirement** paragraph.

手机屏幕的截图

描述已自动生成

Fig 1-5 Sign In page

**Fig 1-5** shows the sign in page, you can access this page from main page or the successful sign up page. By input your INVITATION code you will be successfully redirected to check our schedule.

手机屏幕的截图

描述已自动生成

Fig 1-6 Successful login page

**Fig 1-6** shows our schedule if you are already one guest of mine.

手机屏幕的截图

描述已自动生成

Fig 1-7 Invalid invitation code

**Fig 1-7** shows when you type a wrong invitation code in the sign in page which will be shown.

You are remined to sign up first with a sign up botton.

**HTML Source code**:

Index.html

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Homework6</title>  
</head>  
<body bgcolor="lightgray">  
 <h1 align="center">Dazhi's Guest List</h1>  
 <p align="center">Welcome to Dazhi's guest list, if you are a guest who have already gotten an INVITATION please sign in</p>  
 <p align="center">if you are a new guest, please sign up for an account so we can INVITE you</p>  
 <div align="center">  
 <a href="/signin">  
 <button>Sign in</button>  
 </a>  
 or  
 <a href="/signup">  
 <button>Sign Up</button>  
 </a>  
 </div>  
</body>  
</html>

Signup.html

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Sign up</title>  
</head>  
<body bgcolor="lightgray">  
 <h1 align="center">Welcome to be a new guest</h1>  
 <p align="center">Here you need to finish a form about you and you will receive a INVITATION</p>  
 <div align="center">  
 <form action = "http://localhost:5000/signup" method = "post">  
 <p>How do we call you?</p>  
 <p><input type = "text" name = "guest\_name" /></p>  
 <p>What's your e-mail address?</p>  
 <p><input type = "text" name = "guest\_email" /></p>  
 <p><input type = "submit" value = "Next" /></p>  
 </form>  
 </div>  
</body>  
</html>

Success.html

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Success Signed up</title>  
</head>  
<body bgcolor="lightgray">  
 <h1 align="center">Welcome to be Dazhi's guest</h1>  
 <p align="center">Hello {{new\_guest['guest\_name']}}!</p>  
 <p align="center">This is your invitation code, please remember that to find our schedule</p>  
 <h2 align="center">{{new\_guest['invitation\_num']}}</h2>  
 <p align="center">Wanna try it? Sign in here</p>  
 <div align="center">  
 <a href="/signin">  
 <button>Sign in</button>  
 </a>  
 </div>  
</body>  
</html>

Signin.html

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Sign in</title>  
</head>  
<body bgcolor="lightgray">  
 <h1 align="center">Do you wanna check our schedule?</h1>  
 <div align="center">  
 <form action = "http://localhost:5000/signin" method = "post">  
 <p>Enter your INVITATION NUMBER Here:</p>  
 <p><input type = "text" name = "invitation\_num" /></p>  
 <p><input type = "submit" value = "submit" /></p>  
 </form>  
 </div>  
</body>  
</html>

Login.html

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Schedule</title>  
</head>  
<body bgcolor="lightgray">  
 <h1 align="center">How's it going {{guest['guest\_name']}}</h1>  
 <p align="center">Our party is going on this Saturday</p>  
 <p align="center">8:00 PM</p>  
 <p align="center">Busch Student Center</p>  
 <p align="center">Take your time :)</p>  
</body>  
</html>

Fault.html

<!DOCTYPE html>  
<html lang="en">  
<head>  
 <meta charset="UTF-8">  
 <title>Invalid Invitation</title>  
</head>  
<body bgcolor="lightgray">  
 <h1 align="center">INVALID INVITATION</h1>  
 <p align="center">If you are not in my guest list, please sign up first</p>  
 <div align="center">  
 <a href="/signup">  
 <button>Sign Up</button>  
 </a>  
 </div>  
</body>  
</html>