

Powerschool Assignment:

Name: Kalyani Anjankar

Reg No.: 19MCB0011

Backend:

I used python language for constructing the backend.

For web development I used Flask.

Flask is a web framework. This means **flask** provides you with tools, libraries and technologies that allow you to build a web application. This web application can be some web pages, a blog, a wiki or go as big as a web-based calendar application or a commercial website

For using flask install python then set up virtual environment then install flask.

For frontend :

I used HTML ie hypertext mark-up language

For styling the webpage CSS ie Cascading Style Sheet is used.

Ajax is a set of web development techniques using many web technologies on the client side to create asynchronous web applications.

Description of code:

For text autocomplete I used a dataset of cities.

```
cities=["Spain","Aachen","Germany","Aalborg","Denmark","Abbotabad","Calangute",  
        "Calicut",      "Campirganj", "Canacona", "Chaba", "Chabbewal",  
        "Dabani","    Dabhadi",      "Dabhoi","Jabal",      "Jabalpur","K.Paramathi",  
        "Kaas Plateau","Zadkala",      "Zaheerabad"]
```

Now,

```
app.py x index.html
6 from flask_wtf import Form
7
8 from wtforms import TextField, BooleanField
9
10 app=Flask(__name__)
11
12 class SearchForm(Form):
13     autocomp =TextField('Insert City',id='city_autocomplete')
14
15 import os
16 SECRET_KEY = os.urandom(32)
17 app.config['SECRET_KEY'] = SECRET_KEY
18
19
20 @app.route('/_autocomplete',methods=['GET'])
21 def autocomplete():
22     cities=["Spain","Aachen","Germany","Aalborg","Denmark","Abbotabad","Calangute", "Calicut", "Campirganj", "Canacona", "Chaba"
23     "Dabani"," Dabhadi", "Dabhoi","Jabal", "Jabalpur","K.Paramathi", "Kaas Plateau","Zadkala", "Zaheerabad"]
24     print(cities)
25     return Response(json.dumps(cities),mimetype='application/json')
26
27 @app.route('/',methods=['GET','POST'])
28
29 def index():
30     form = SearchForm(request.form)
31     return render_template("index.html",form=form)
32
33 if __name__ == '__main__':
34     app.run(debug=True)
```

Autocomplete api will give data to the function and will dump the cities .

```
13
14 <script>
15     $(function(){
16         $.ajax({
17             url:'{{url_for("autocomplete")}}'
18         }).done(function(data){
19             $('#city_autocomplete').autocomplete({
20                 source:data,
21                 minLength:2
22             });
23         });
24     });
25 </script>
```

Index.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>PowerSchool
5     </title>
6     <link rel="stylesheet" href="http://code.jquery.com/ui/1.12.1/themes/base/jquery-ui.css">
7     <script src="http://code.jquery.com/jquery-1.12.4.js"></script>
8     <script src="http://code.jquery.com/ui/1.12.1/jquery-ui.js"></script>
9 </head>
10 <body>
11     <h1>Enter Text</h1>
12     {{form.autocomp.label}}:{{form.autocomp}}
13 <script>
14     $(function(){
15         $.ajax({
16             url:'{{url_for("autocomplete")}}'
17         }).done(function(data){
18             $('#city_autocomplete').autocomplete({
19                 source:data,
20                 minLength:2
21             });
22         });
23     });
24 </script>
25
26 </body>
27 </html>
```

So this will show the textbox with insert cities and give dropdown list of cities.

To run use command prompt

Python app.py

```
(virtual) C:\Users\ASHISH\Example\example1>python app.py
* Serving Flask app "app" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production deployment.
  Use a production WSGI server instead.
* Debug mode: on
* Restarting with stat
* Debugger is active!
* Debugger PIN: 217-343-581
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

Use specified http for getting results.