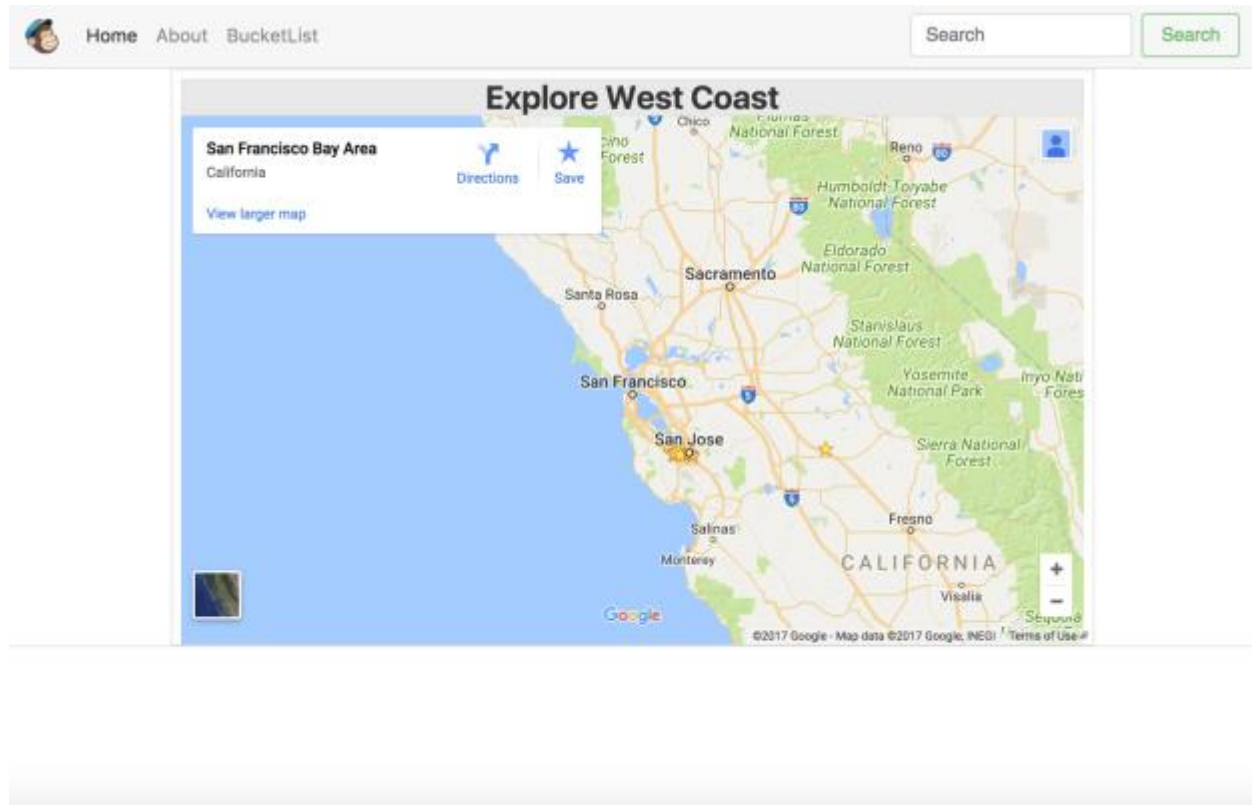
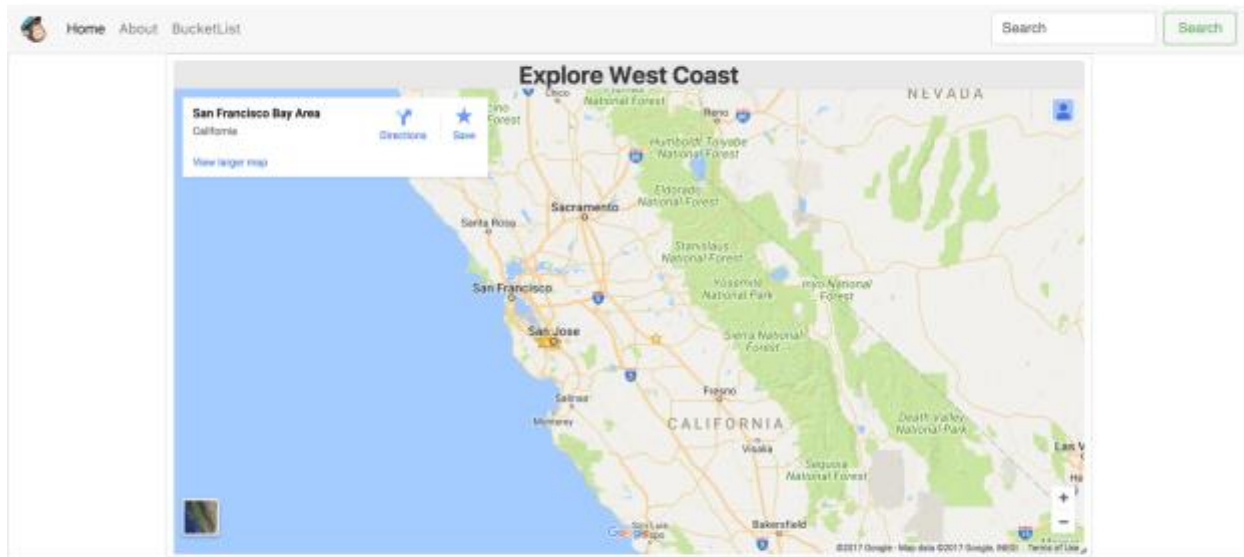


Resizable jQuery UI object

To implement the requirement of resizing jQuery UI object, we create a webpage named maps.html which use the Google Map's API to display the map of west coast, be specific, the San Francisco bay area.



Users have to click the link which says map on the homepage and then users can resize the map by putting the mouse on the small triangle on right-bottom corner, and then click it and hold it. The map can get bigger which allows the users to see more places displayed on the map.



The jQuery and html code snippet that enable this functionality is shown below:

```
<script>
  $( function() {
    $( "#resizable" ).resizable();
  } );
</script>
```

```

<div class="ui-widget-content">
  <div class="container">
    <div class="row justify-content-center">
      <div id="resizable" class="ui-widget-content">
        <h3 class="ui-widget-header">Explore West Coast</h3>
        <iframe
          width="100%"
          height="95%"
          frameborder="0"
          src="https://www.google.com/maps/embed/v1/place?key=AIzaSyBhbImaMErB_FzIzV1r1fbdXf0fmo1uPYc
            &q=bay area" allowfullscreen>
        </iframe>
      </div>
    </div>
  </div>
</div>

```

jQuery's `resizable()` function is declared first thing in the `<head>`, and only works with the `<div>` that has the id of 'resizable'.

In the html file, we create a `<div>` with `id = "resizable"` and a `class = "ui-widget-content"` which is a built-in class. And as a result, we can see the map is resizing based on the size of the block.

Dragged and dropped jQuery UI object

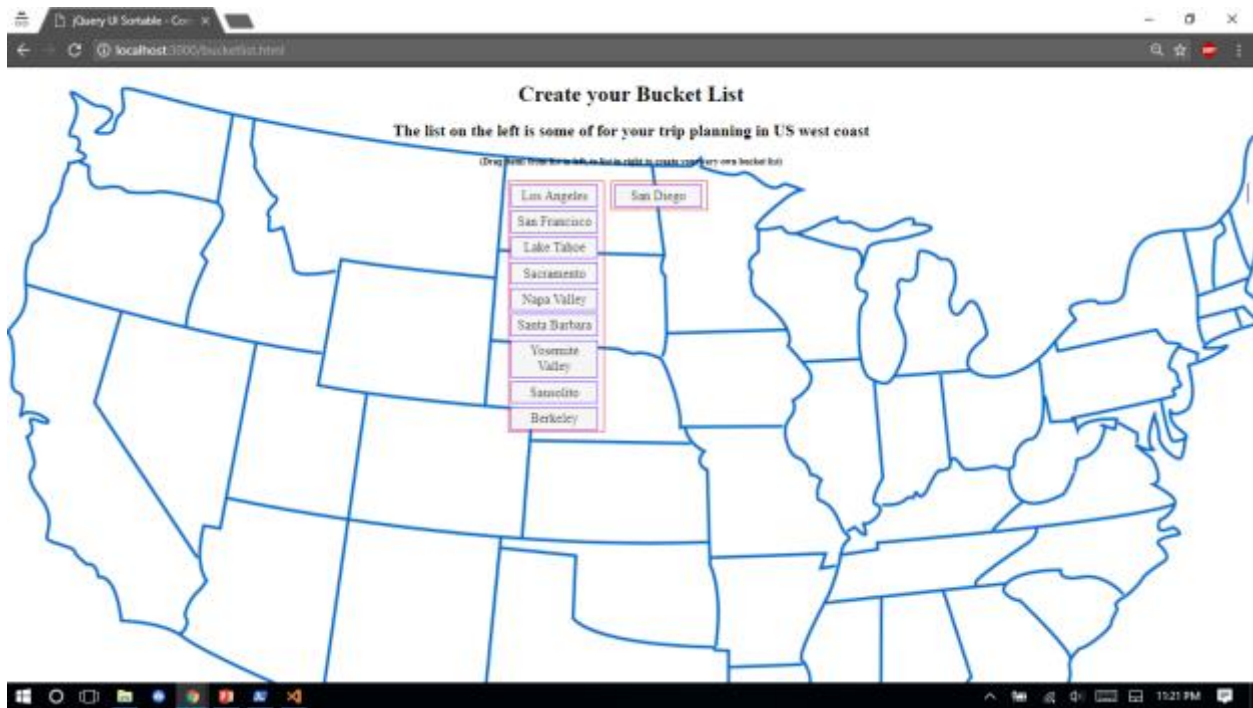
To implement the requirement of having a screen object that is dragged and dropped, we have created a web page in our application whose functionality is to help the user create a bucket list.

Bucket list is a list of places that the user plans to visit, from the recommendations given by the tour guide.



As we can see there are two lists in the web page, the first list is a list that recommends places to visit and the second list is an empty one. It is the user's bucket list which he or she can fill by dragging and dropping items from the first list.

The following screenshot shows an item being dragged from one list to the other one and then eventually dropped.



The jQuery code snippet that enables this functionality is shown below:

```
$( function() {  
    $( "#list1, #list2" ).sortable({  
        connectWith: ".connectedSortable"  
    }).disableSelection();  
});
```

jQueryUI's `sortable()` method has been used for ordering the elements in both the lists. The selectors (list1 and list2) have been specified in the method as the elements on which the sortable action has to be performed.

'connectWith' is a Selector that identifies another sortable element that can accept items from the other sortable elements defined. Using this property, we are able to move items from list to another. This is a one-way relationship. By default its value is false.

'DisableSelection' ensures that the text inside the list elements is not selected while the list elements are being dragged from one list to another.

AJAX tabs

We use AJAX tabs to show information about the city to users. It has 3 items: Intro, Food and Tour. Users could get relevant information in them. Users could change the content in the tab by clicking the tags.


Here is how it works:

IntroFoodTour

San Diego (/ˌsæn dɪˈeɪɡoo/, Spanish for "Saint Didacus"; Spanish: [san ˈdjeɣo]) is a major city in California, United States. It is in San Diego County, on the coast of the Pacific Ocean in Southern California, approximately 120 miles (190 km) south of Los Angeles and immediately adjacent to the border with Mexico

With an estimated population of 1,406,630 as of July 1, 2016, San Diego is the eighth-largest city in the United States and second-largest in California. It is part of the San Diego–Tijuana conurbation, the second-largest transborder agglomeration between the US and a bordering country after Detroit–Windsor, with a population of 4,922,723 people. The city is known for its mild year-round climate, natural deep-water harbor, extensive beaches, long association with the United States Navy, and recent emergence as a healthcare and biotechnology development center.

San Diego has been called "the birthplace of California". Historically home to the Kumeyaay people, it was the first site visited by Europeans on what is now the West Coast of the United States. Upon landing in San Diego Bay in 1542, Juan Rodríguez Cabrillo claimed the area for Spain, forming the basis for the settlement of Alta California 200 years later. The Presidio and Mission San Diego de Alcalá, founded in 1769, formed the first European settlement in what is now California. In 1821, San Diego became part of the newly independent Mexico, which reformed as





[Intro](#)
[Food](#)
[Tour](#)

A.R. Valentien at The Lodge at Torrey Pines

11480 N Torrey Pines Rd, La Jolla, San Diego

Menu

Fresh seafood

Description

The Lodge's signature restaurant, A.R. Valentien, highlights regional San Diego cuisine served in an elegant, timbered indoor-outdoor dining room overlooking the 18th hole of Torrey Pines Golf Course. Executive Chef Jeff Jackson sources only the best local provisions, and the menu changes frequently based on seasonal fare available. The restaurant takes its name from a talented early 20th-century California artist whose works are exhibited throughout the restaurant.

To implement AJAX tabs, we use the `.tabs()` function from jQuery and use html files as the link in the corresponding items in the tabs. When users click the tags, the server will load the html file to be the content of tabs.

AJAX tabs in html:

```
<div id="tabs">
  <h1 id="SD_title">Tour in San Diego</h1>
  <ul>
    <li><a href="SD_intro.html">Intro</a></li>
    <li><a href="SD_food.html">Food</a></li>
    <li><a href="SD_tour.html">Tour </a></li>
  </ul>
</div>
```

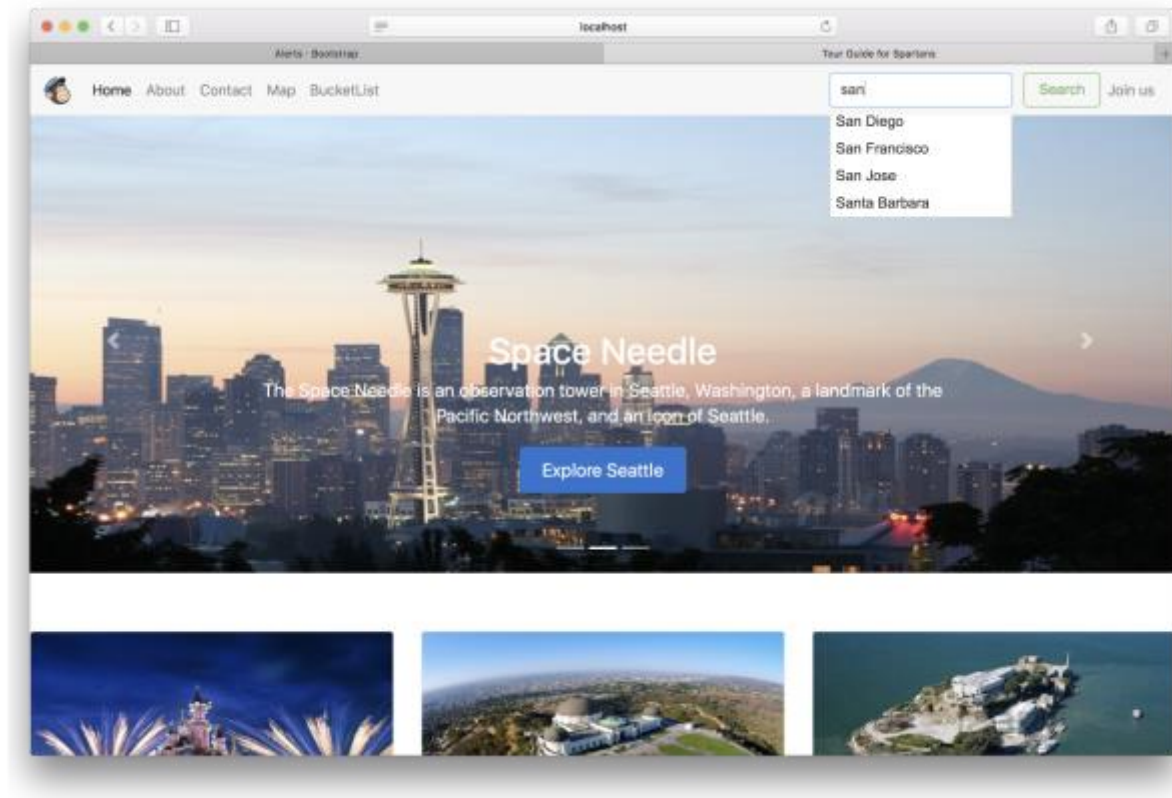
AJAX tabs in js:

```
<script>
  $( function() {
    $( "#tabs" ).tabs({
      beforeLoad: function( event, ui ) {
        ui.jqXHR.fail(function() {
          ui.panel.html(
            "Couldn't load this tab. We'll try to fix this as soon as possible. " +
            "If this wouldn't be a demo." );
        });
      }
    });
  });
</script>
```


Interactive jQuery UI widgets:

Widget#1:

The first widget we implemented is auto-completion for the search bar on our homepage. The search bar is designed for users to find specific information they want for certain places on west coast of U.S.



Here is how it works. The purpose of auto-completion is to help users to type in the places faster and more easily even when they forget how to spell the names of those cities.

To implement this, we first need to import jQuery and jQuery UI source files. Then we need to add the places in the jQuery code as follows:

```

$( function() {
    var availableTags = [
        "San Diego",
        "Los Angeles",
        "San Francisco",
        "Seattle",
        "San Jose",
        "Santa Barbara"
    ];
    $( "#tags" ).autocomplete({
        source: availableTags
    });
} );

```

In the HTML code part, we need to give class name “ui-widget” to the division which contains the input tag for the search bar. Last but not least, the id “tags” is needed for the input for the auto-completion function to work.

```

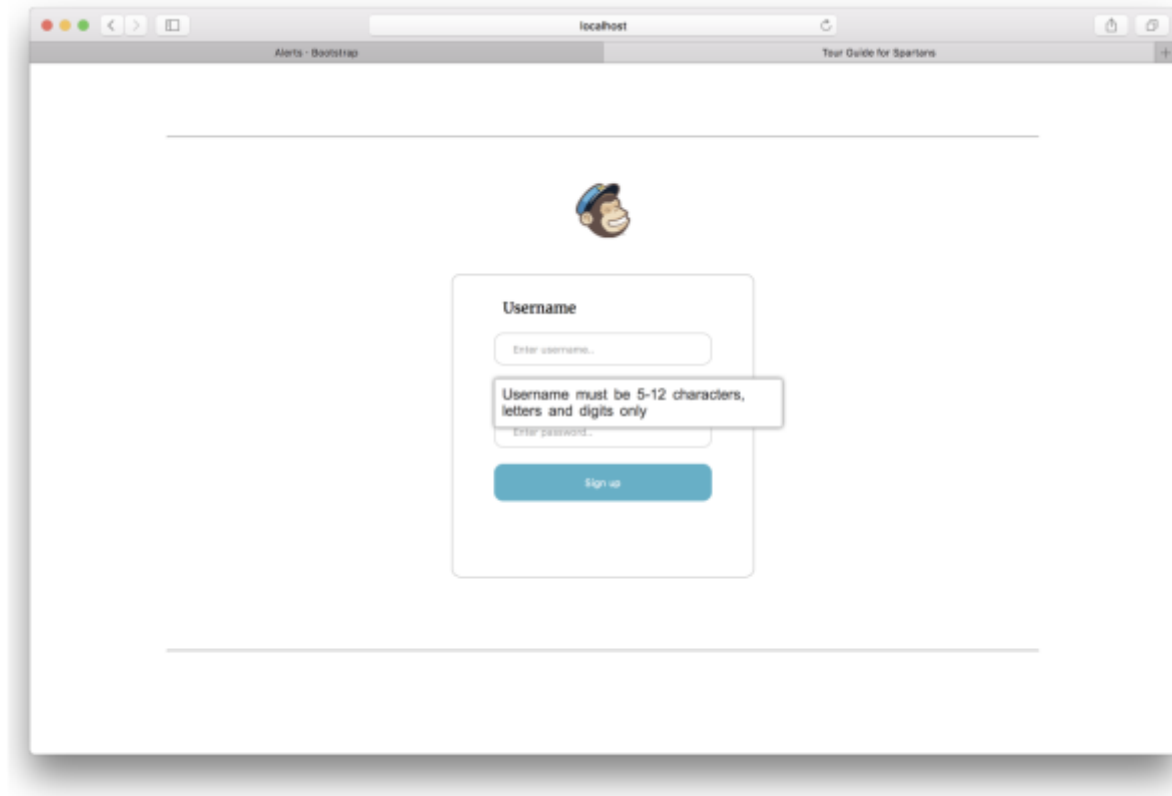
<form class="form-inline mt-2 mt-md-0">
  <div class="ui-widget">
    <input class="form-control mr-sm-2" id="tags" type="text" placeholder="Search">
    <button class="btn btn-outline-success my-2 my-sm-0" type="submit">Search</button>
  </div></form>
<!--

```

Widget#2:

The second widget we implemented is the tooltip for sign up page. When a new user trying to sign up for an account, the system will gently inform them the criteria for both user names and passwords. The purpose of this widget would be to help users to sign up for an account easily.

Here is the screenshot for how it works:



When the mouse is placed in the username or password input box, this information will be displayed to tell users that Username (or Password) must be 5-12 characters long, letters and digits only.

To implement this, we also need to import jQuery and jQuery UI files from online resources. Then, we only need to write this in the script tag:

```
<script>
    $( function() {
        $( document ).tooltip();
    } );
</script>
```

In the HTML code of those input boxes,

```
<div class="containerForm">
  <!-- sending the username and password in POST request to the address specified in FORM action for sign-up -->
  <form action="http://localhost:3000/process_post" method="POST">
    <p>Username</p>
    <input type="text" title="Username must be 5-12 characters, letters and digits only" placeholder="Enter username.." name="userName" size="50">
    <p>Password</p>
    <input id="pwd" title="Password must be 5-12 characters, letters and digits only" type="password"
      placeholder="Enter password.." name="passWord" size="50">
    <button id="signupBtn" type="submit">Sign up</button>
  </form>
</div>
```

we just need to add a title attribute for input tag then the tooltip will be shown when users trying to type in their own usernames and/or passwords.

Widget#3:

The third widget we implement is a date-picker. The date-picker will allow users of our website to select the date he/she plans to start their trips to a certain place. Our website will later give them better suggestions like events during those dates at their destinations to help them better enjoy their trips.

Here is how this widget works:



Users are only allowed to choose a future date since you can't plan to start your trip before current date.

To implement this, we first need to import jQuery and jQuery UI source files. Then we need to specify this in the script tag:

```
$( function() {
    $( "#datepicker" ).datepicker({
        minDate : 0
    });
} );
```

minDate: 0 here means only future dates are allowed. Then in the HTML code of this part,

```
<div class="row featurette">
  <div class="col-md-8 push-md-4">
    <h2 class="featurette-heading">Spartans' TOUR plan!:</h2>
    <p>Date you plan to start your trip: <input type="text" id="datepicker"></p>
  </div>
  <div class="col-md-4">
    <img class="featurette-image img-fluid mx-auto" src=""
        alt="placeholder image">
  </div>
</div>
```

we need to give id “datepicker” to the input box for this widget to work.