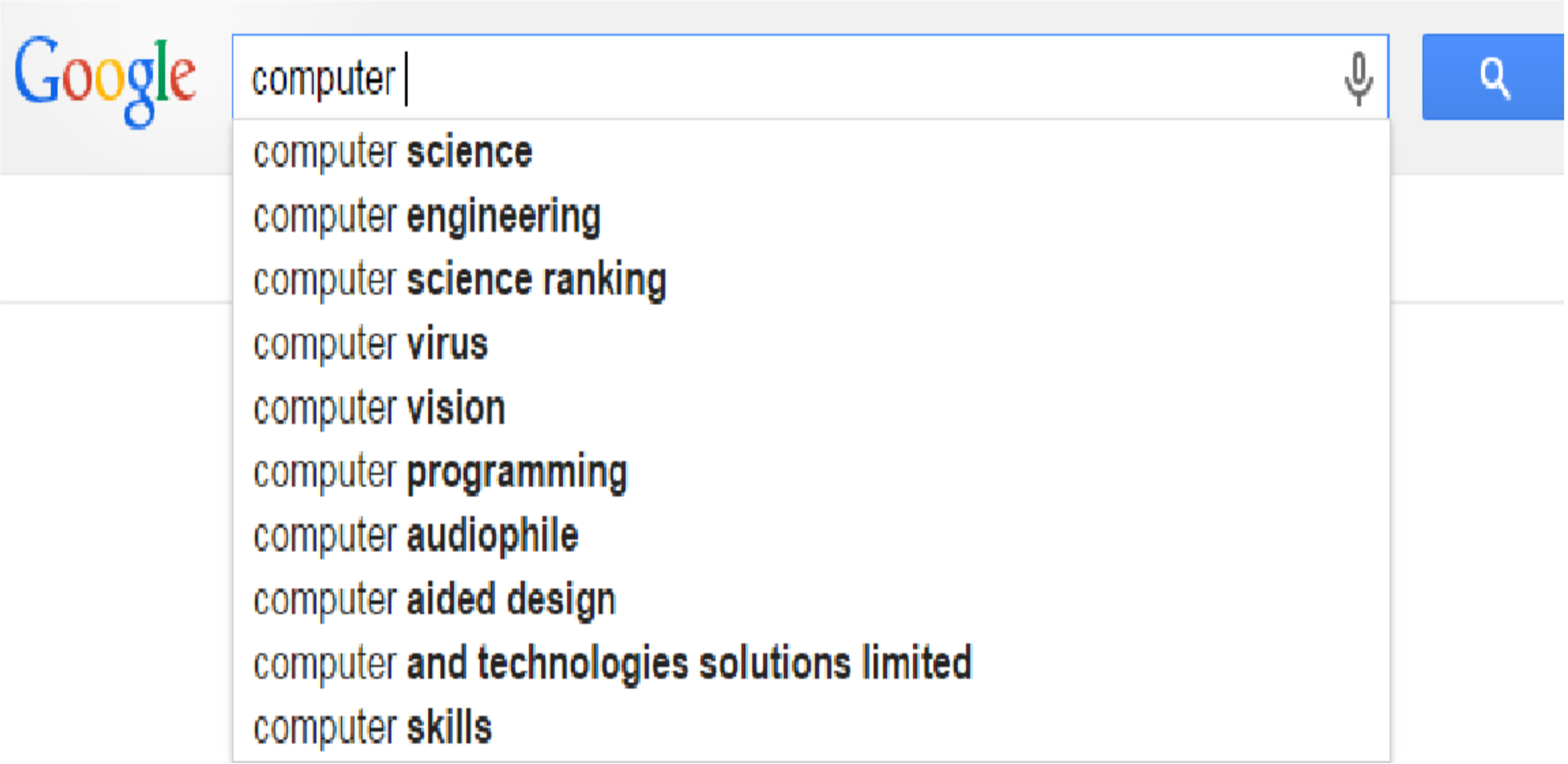
COMP4021
Internet Computing

Assignment 1
jQuery Autocomplete

Autocomplete

- Query autocomplete feature is commonly used in search engines

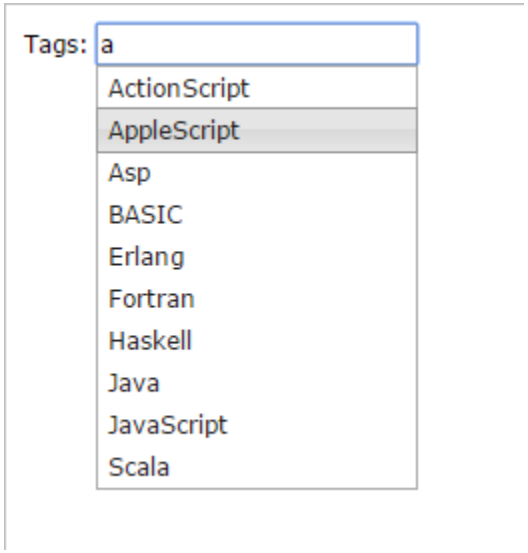


computer

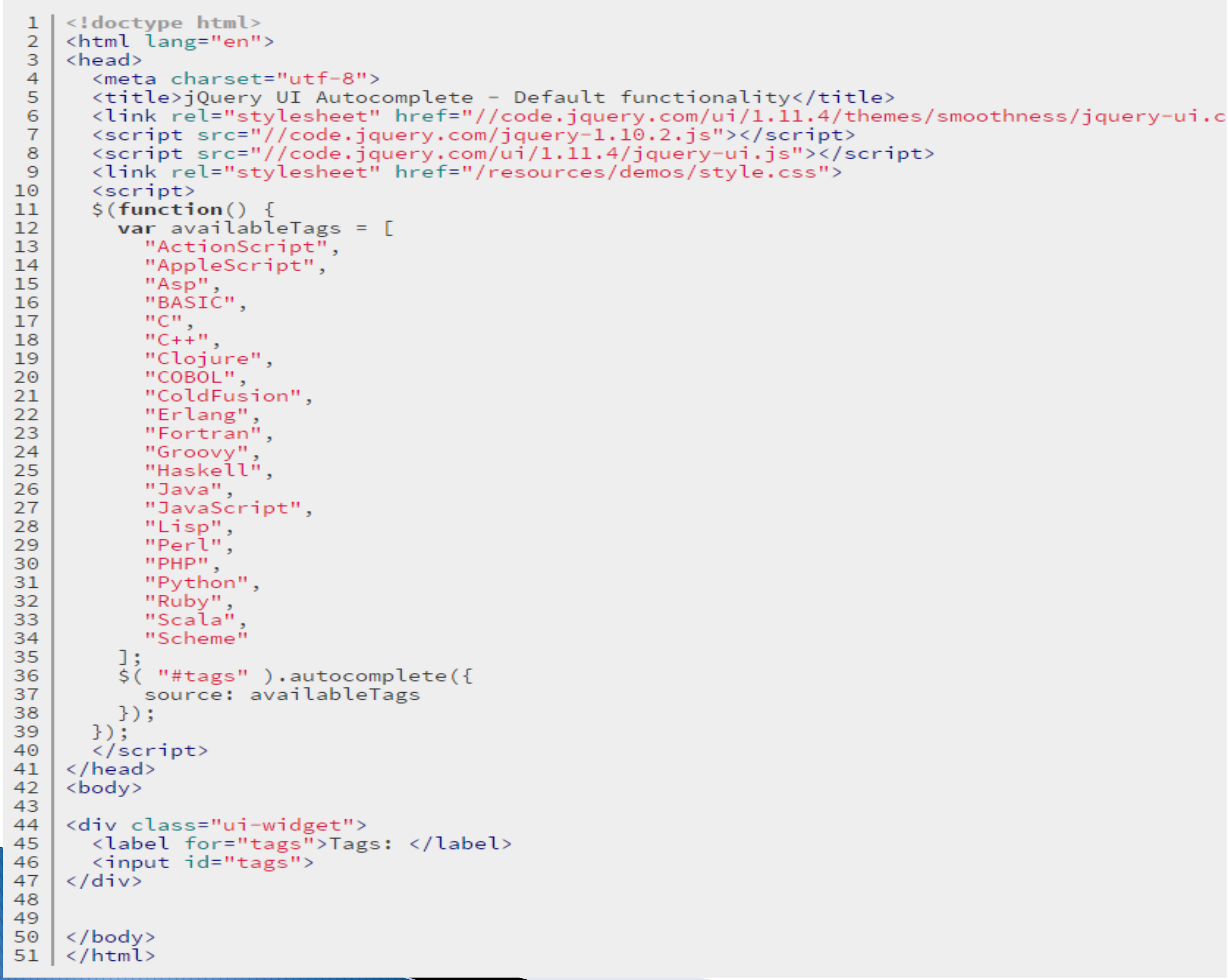
computer science
computer engineering
computer science ranking
computer virus
computer vision
computer programming
computer audiophile
computer aided design
computer and technologies solutions limited
computer skills

1.Basic Functionality

- When user types in abc, list all strings in datafile that contain abc anywhere in the strings(e.g., abcd…, dabc…, dabce…).



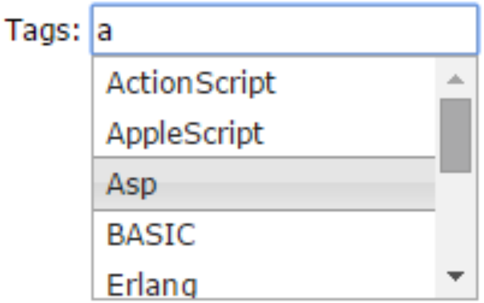
Tags: a



```html
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>jQuery UI Autocomplete - Default functionality</title>
  <link rel="stylesheet" href="//code.jquery.com/ui/1.11.4/themes/smoothness/jquery-ui.c
  <script src="//code.jquery.com/jquery-1.10.2.js"></script>
  <script src="//code.jquery.com/ui/1.11.4/jquery-ui.js"></script>
  <link rel="stylesheet" href="/resources/demos/style.css">
  <script>
  $(function() {
    var availableTags = [
      "ActionScript",
      "AppleScript",
      "Asp",
      "BASIC",
      "C",
      "C++",
      "Clojure",
      "COBOL",
      "ColdFusion",
      "Erlang",
      "Fortran",
      "Groovy",
      "Haskell",
      "Java",
      "JavaScript",
      "Lisp",
      "Perl",
      "PHP",
      "Python",
      "Ruby",
      "Scala",
      "Scheme"
    ];
    $( "#tags" ).autocomplete({
      source: availableTags
    });
  });
  </script>
</head>
<body>

<div class="ui-widget">
  <label for="tags">Tags: </label>
  <input id="tags">
</div>


</body>
</html>
```

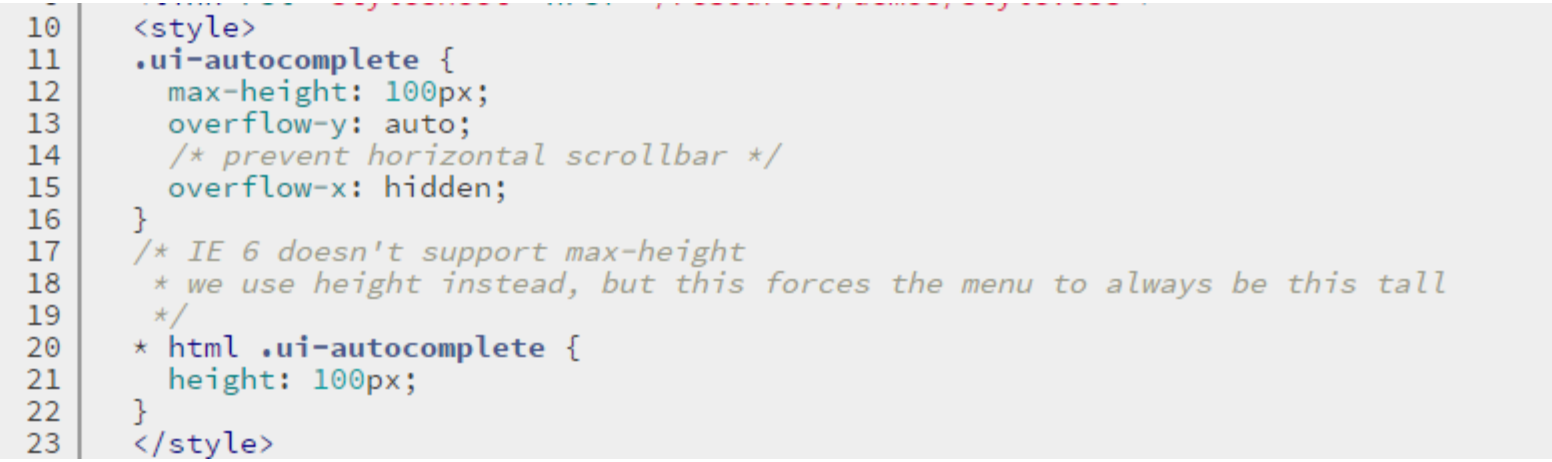
2. Extended Function: Scrollable Results

- When displaying a long list of options, set the max-height for the autocomplete menu, scroll through the results.



Tags: a

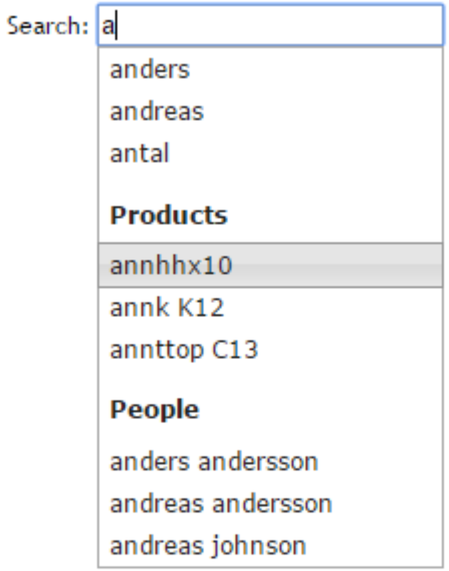
ActionScript
AppleScript
Asp
BASIC
Erlang



```
<style>
.ui-autocomplete {
  max-height: 100px;
  overflow-y: auto;
  /* prevent horizontal scrollbar */
  overflow-x: hidden;
}
/* IE 6 doesn't support max-height
 * we use height instead, but this forces the menu to always be this tall
 */
* html .ui-autocomplete {
  height: 100px;
}
</style>
```

3. Extended Function: Categories

- A categorized search result.



Search: a

anders

andreas

antal

Products

annhhx10

annk K12

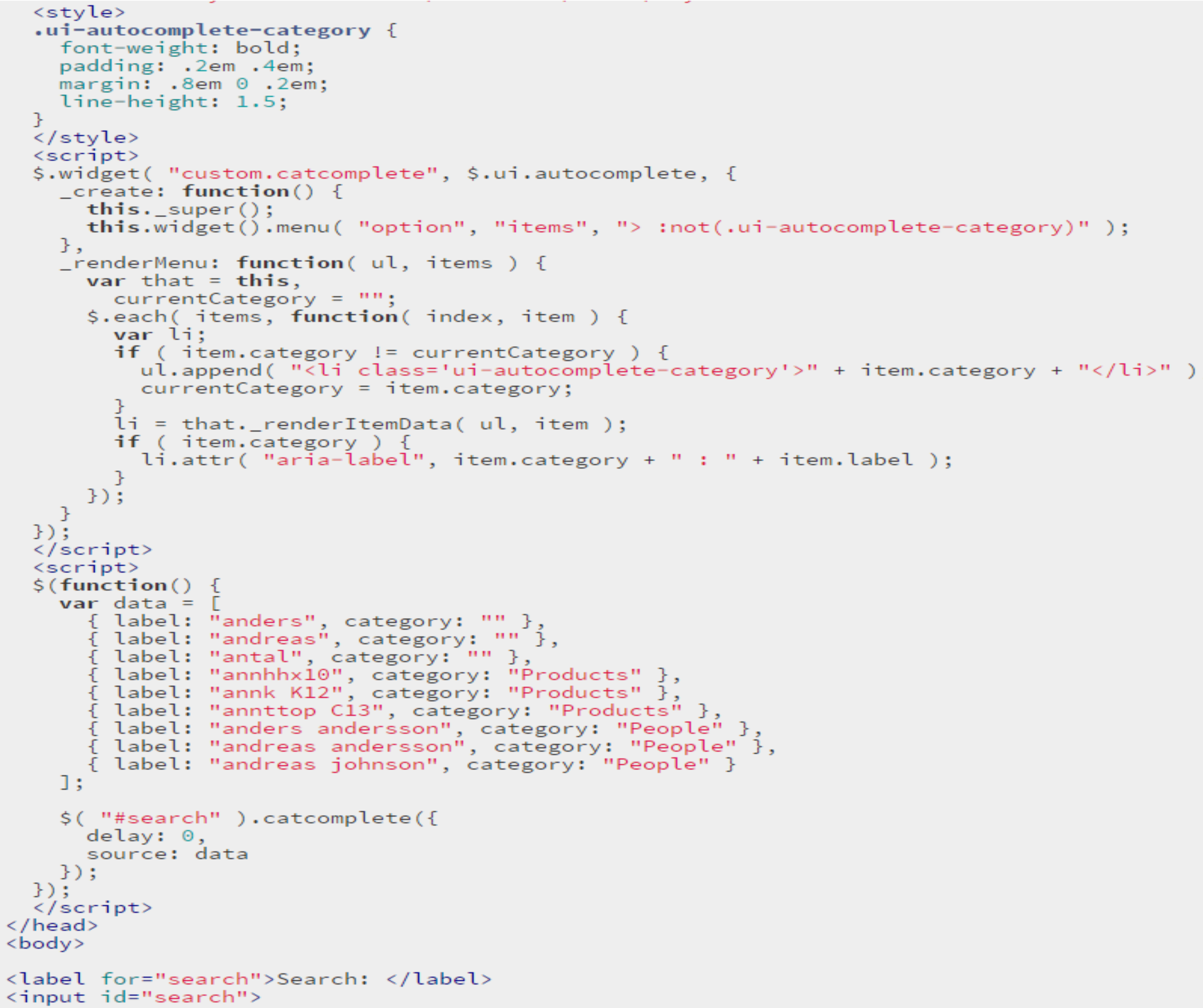
annttop C13

People

anders andersson

andreas andersson

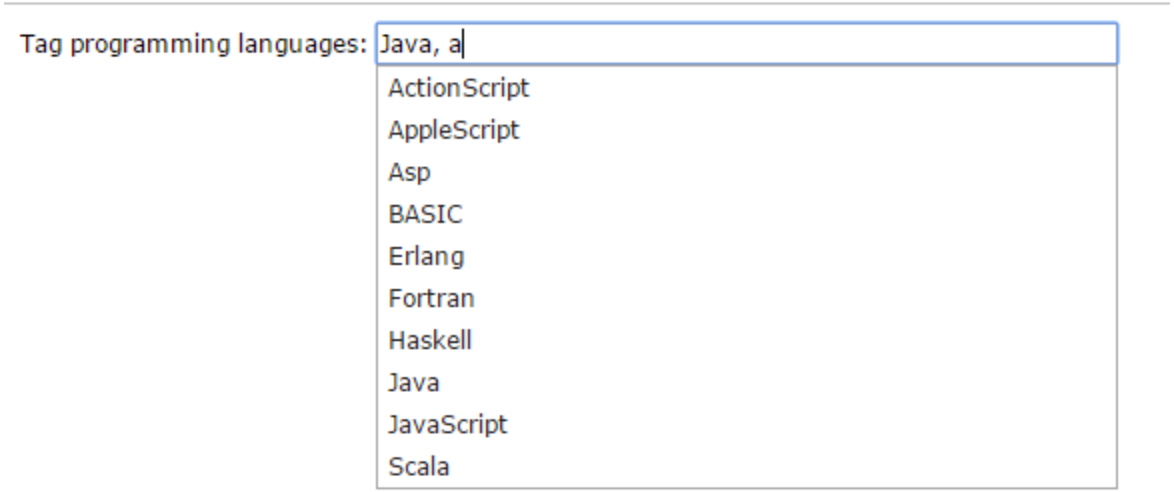
andreas johnson



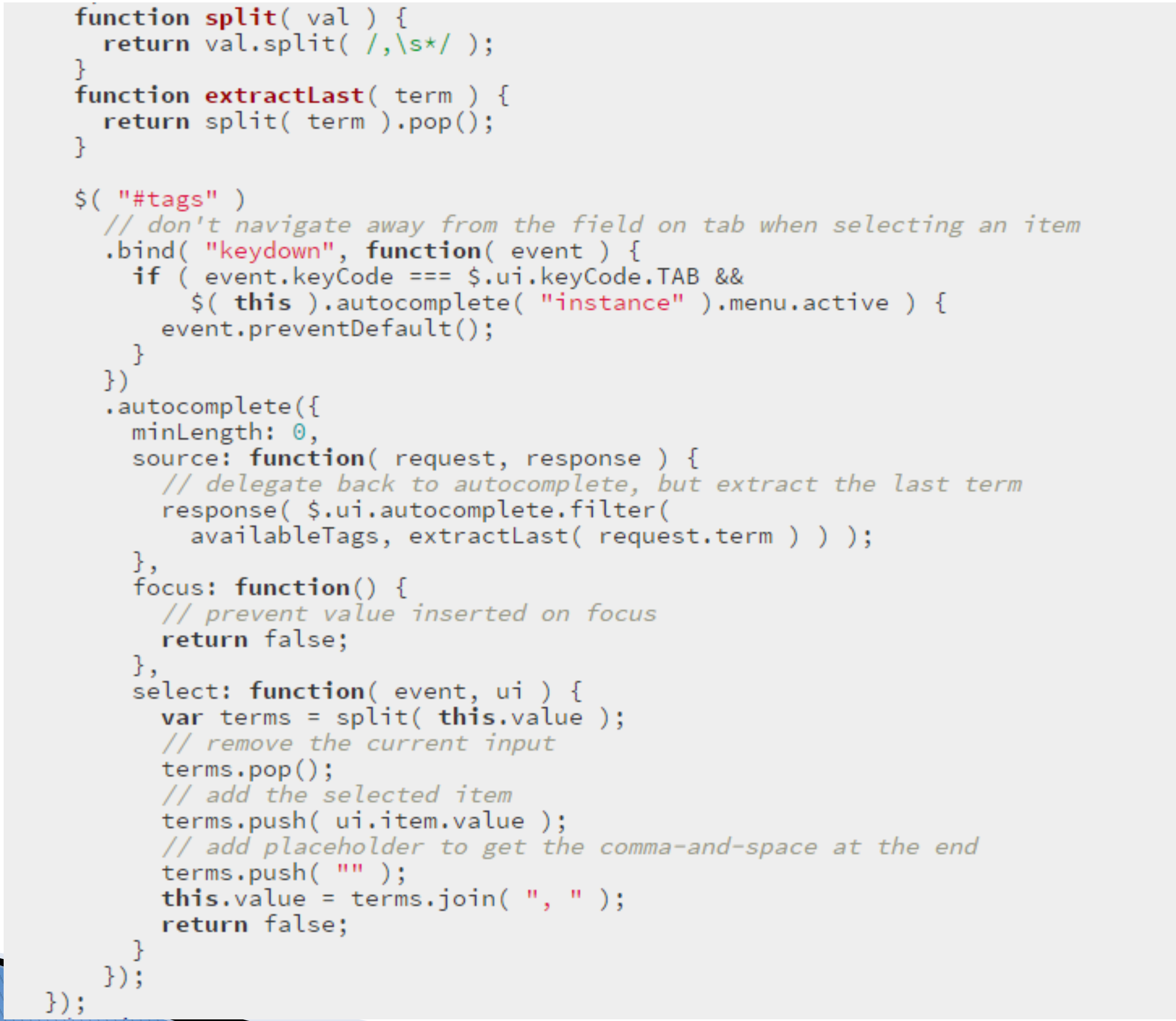
```
  <style>
  .ui-autocomplete-category {
    font-weight: bold;
    padding: .2em .4em;
    margin: .8em 0 .2em;
    line-height: 1.5;
  }
  </style>
  <script>
  $.widget( "custom.catcomplete", $.ui.autocomplete, {
    _create: function() {
      this._super();
      this.widget().menu( "option", "items", "> :not(.ui-autocomplete-category)" );
    },
    _renderMenu: function( ul, items ) {
      var that = this,
        currentCategory = "";
      $.each( items, function( index, item ) {
        var li;
        if ( item.category != currentCategory ) {
          ul.append( "<li class='ui-autocomplete-category'>" + item.category + "</li>" )
          currentCategory = item.category;
        }
        li = that._renderItemData( ul, item );
        if ( item.category ) {
          li.attr( "aria-label", item.category + " : " + item.label );
        }
      });
    }
  });
  </script>
  <script>
  $(function() {
    var data = [
      { label: "anders", category: "" },
      { label: "andreas", category: "" },
      { label: "antal", category: "" },
      { label: "annhhx10", category: "Products" },
      { label: "annk K12", category: "Products" },
      { label: "annttop C13", category: "Products" },
      { label: "anders andersson", category: "People" },
      { label: "andreas andersson", category: "People" },
      { label: "andreas johnson", category: "People" }
    ];

    $( "#search" ).catcomplete({
      delay: 0,
      source: data
    });
  });
  </script>
</head>
<body>

<label for="search">Search: </label>
<input id="search">
```

4. Extended Function: Multiple Values

- Type something, eg. "j" to see suggestions for tagging with programming languages. Select a value, then continue typing to add more.



Tag programming languages: Java, a



```
  function split( val ) {
    return val.split( /,\s*/ );
  }
  function extractLast( term ) {
    return split( term ).pop();
  }

  $( "#tags" )
    // don't navigate away from the field on tab when selecting an item
    .bind( "keydown", function( event ) {
      if ( event.keyCode === $.ui.keyCode.TAB &&
          $( this ).autocomplete( "instance" ).menu.active ) {
        event.preventDefault();
      }
    })
    .autocomplete({
      minLength: 0,
      source: function( request, response ) {
        // delegate back to autocomplete, but extract the last term
        response( $.ui.autocomplete.filter(
          availableTags, extractLast( request.term ) ) );
      },
      focus: function() {
        // prevent value inserted on focus
        return false;
      },
      select: function( event, ui ) {
        var terms = split( this.value );
        // remove the current input
        terms.pop();
        // add the selected item
        terms.push( ui.item.value );
        // add placeholder to get the comma-and-space at the end
        terms.push( "" );
        this.value = terms.join( ", " );
        return false;
      }
    });
});
```

Project Requirements

Basic function	20%
Scrollable results	20%
Categories	30%
Multiple Values	30%

Reference

- Starting code
  - Starting_code.html
  - jquery-1.11.3.js , jquery-ui.js
  - jquery-ui.css, style.css
- You can choose any data you like, as long as it can satisfy the requirements.
  - Number of items should be at least 30
  - Both categorized and uncatergorized data are required (like the demo in the lab)
- Reference dataset
  - http://www.countries-list.info/Download-List
- Useful resource:
  - https://jqueryui.com/autocomplete/

Basic Functionality

- Provide suggestions while you type into the field.
  - +5 marks – when type in *a*, you should list all strings in the data file that contain *a anywhere* in the string.
  - +10 marks – use blue font to display the first matched substring and bold font for the remaining part of the suggestion. User types in ‘tab’, like ‘**da**tab**ase systems**’ will be shown.
  - +5 marks – use blue font display all the matched substring in each item.
    - Eg input ‘a’, suggestions should be ‘**d**a**t**a**base**’

Extended Function: Scrollable Results

- +20 marks can scroll through the results
  - please specify the query to show the scrollable result.

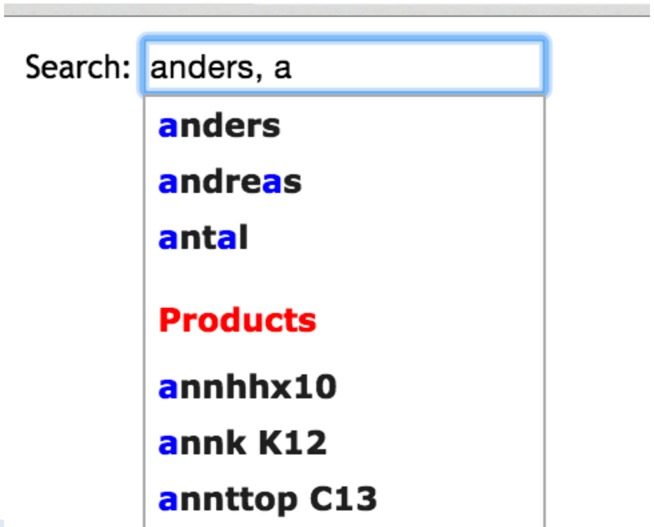
Extended Function: Categories

- +10 marks display items under its category, +10 marks display the category name in red color

- +10 marks display items separately that don’t belong to any category

Extended Function: Multiple Values

- +20 marks can achieve this function
  - +10 marks we can input multiple terms. For each term, the autocomplete function works
  - +10 marks all the input terms should be displayed in the input box
- +10 marks for every input term, can fulfill all the requirements as mentioned before.
  - Category display
  - Matched substring
  - Remaining string
  - etc



Search: anders, a

anders

andreas

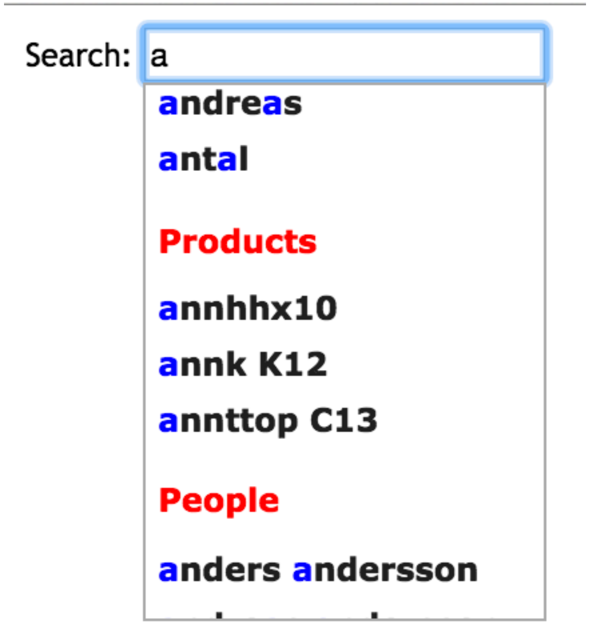
antal

Products

annhhx10

annk K12

annttop C13



Search: a

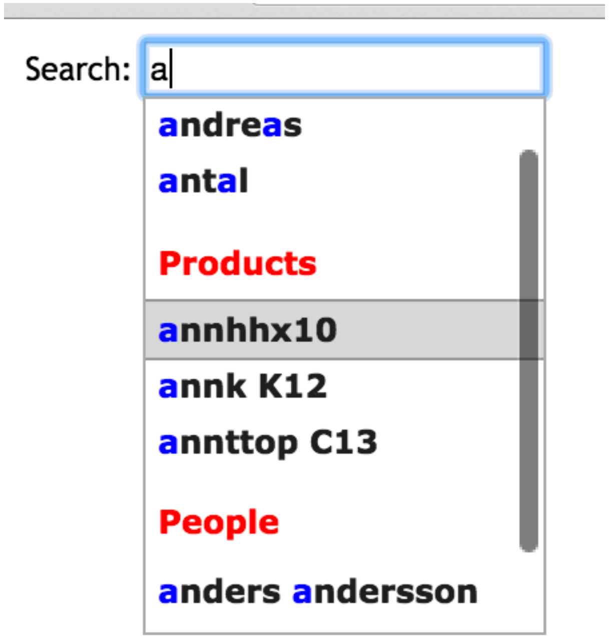
andreas
antal

Products

annhhx10
annk K12
annttop C13

People

anders andersson



Search: a

andreas
antal

Products

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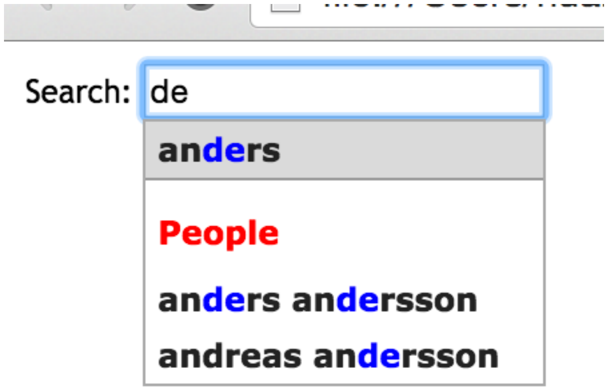
People

anders andersson

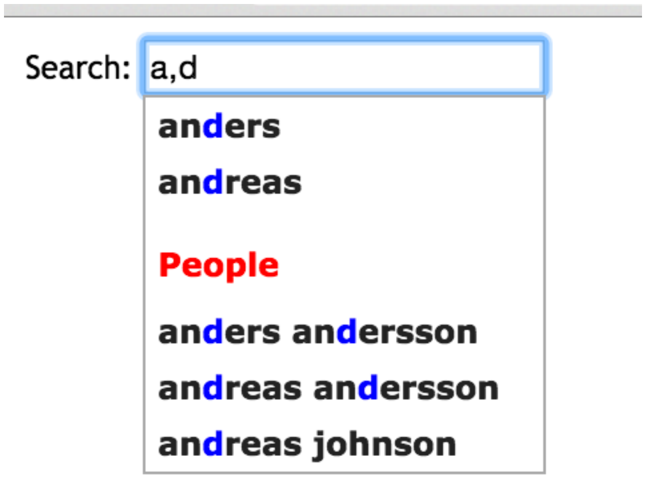


Search: de

anders

People

anders andersson
andreas andersson



Search: a,d

anders
andreas

People

anders andersson
andreas andersson
andreas johnson

Submission

- Deadline: 23:59 Oct 7th,2015
  - If you submit after the due date, your score will be penalized by 20% for each day after the due date.
  - Submissions are rejected 2 days after the due date.

- Submit your project through CASS system

- Format of submissions
  - Put all the files into a single zip file.
  - Filename: StudentID_Name_proj1_comp4021.zip

Grading

- Grading Environment
  - The project will be checked in Chrome browser using query “a”

- Readme File
  - If you are using Firefox browser(IE is not accepted) , Specify it in the Readme file.
  - If “a” can’t trigger the function, specify the query that can trigger the function in the Readme file.