

JS Advanced: Exam 26 April 2018

Problems for exam preparation for the ["JavaScript Advanced" course @ SoftUni](#). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/1004/>.

Problem 1. Bus Route (Simple DOM Interaction)

You are given the following **HTML code**:

bus-route.html

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <title>Bus route</title>
  <style>
    body{padding:30px;display:flex;flex-direction:row}section{width:250px;margin:0
50px;background:#DEEAE;padding:0 25px}h2,h3{text-align:center}h3{margin:0}ol,ul{
padding:0 20px}button{margin:5px auto}li{padding:2px 5px}li:nth-child(even){
background:#EAF7FB}li:nth-child(odd){background:#C6D1D4}#enter-stops{padding:25px
10px}#enter-stops>{*{display:block;padding:10px 35px}#selected-bus-stops li:first-
child{background:#b1cbbb}#selected-bus-stops li:last-child{background:#eea29a}#enter-
stops h2{margin:0;text-align:left}span{color:#485788}
  </style>

  <script src="https://code.jquery.com/jquery-3.3.1.min.js"></script>
</head>
<body>

  <section>
    <h2>Given bus route</h2>
    <ol id="bus-stops" type="1">
      <!-- Select bus stops from here -->
    </ol>
  </section>

  <div class="wrapper">
    <section id="enter-stops">
      <h2>Enter bus stops:</h2>
      <label>First bus stop's number:
        <input name="first-stop" type="number">
      </label>
      <label>Last bus stop's number:
        <input name="last-stop" type="number">
      </label>
      <button onClick="busRoute()">Enter</button>
    </section>
  </div>
```

```

<section>
  <h2>Selected route</h2>
  <h3 id="selected-route">Bus stops: <span>none</span></h3>
  <ul id="selected-bus-stops">
    <!-- Display your selected bus stops here -->
  </ul>
</section>

<script>
  function busRoute() {
    // TODO: Write your code here
  }
  $((() => {
    let busStops = [
      "Gen. Gurko St.",
      "Sofia University",
      "Eagles' Bridge Sq.",
      "Bulgarian News Agency",
      "Peyo Yavorov Blvd.",
      "Aleksandar Zhendov Blvd.",
      // You can add/remove bus stops from here
    ]

    let listBusStops = $('#bus-stops')
    for (let i = 0; i < busStops.length; i++) {
      const busStopLi = $('<li>').text(busStops[i]);

      listBusStops.append(busStopLi)
    }
  })
</script>
</body>
</html>

```

Your Task

Write the missing JavaScript function **busRoute()** to make the **[Enter]** button work as expected – when clicked **selects** your **bus stops** from your **given route** of the bus from **top** to **bottom** and **displays them** in the **selected route**. The **[Enter]** button should:

- **Receives the text** from the **input boxes** and:
 - **Replaces the text** "none" inside the **span** element **with the selected bus stops** in the following **format**:
"**{firstStop}–{lastStop}**"
 - **Selects from the given route** of the bus **with the received bus stops** and **displays it** to the list with ID of "selected-bus-stops". See the examples for more details.
- **Clears the input boxes** after the **bus stops** are **selected** correctly
- **Do nothing** if:
 - **Either of text boxes** is **empty**
 - There is **invalid data**

Note that, the **starting** (first) **bus stop** must always **come before** the **ending** (last) **one** and the **two stops** must always **be different**. Also, every **bus stop** number corresponds to its **given one** by the list with ID of "bus-stops".

All **given numbers** to the **text boxes** for selecting the **bus stops** will be **integers**.

Submission

Submit only your **busRoute** function.

Examples

First example:

| Given bus route | Enter bus stops: | Selected route |
|--|--|---|
| <ol style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd.Aleksandar Zhendov Blvd. | <p>First bus stop's number: <input type="text" value="2"/></p> <p>Last bus stop's number: <input type="text" value="5"/></p> <p><input type="button" value="Enter"/></p> | <p>Bus stops: none</p> |
| <ol style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd.Aleksandar Zhendov Blvd. | <p>First bus stop's number: <input type="text"/></p> <p>Last bus stop's number: <input type="text"/></p> <p><input type="button" value="Enter"/></p> | <p>Bus stops: 2-5</p> <ul style="list-style-type: none">Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd. |

The HTML DOM **before** selecting the bus stops.

```
<section>
  <h2>Given bus route</h2>
  <ol id="bus-stops" type="1"> == $0
    <!-- Select bus stops from here -->
    <li>Gen. Gurko St.</li>
    <li>Sofia University</li>
    <li>Eagles' Bridge Sq.</li>
    <li>Bulgarian News Agency</li>
    <li>Peyo Yavorov Blvd.</li>
    <li>Aleksandar Zhendov Blvd.</li>
  </ol>
</section>
<div class="wrapper">...</div>
<section>
  <h2>Selected route</h2>
  <h3 id="selected-route">
    "Bus stops: "
    <span>none</span>
  </h3>
  <ul id="selected-bus-stops">
    <!-- Display your selected bus stops here -->
  </ul>
</section>
```

The HTML DOM **after** selecting the bus stops.

```
<section>
  <h2>Given bus route</h2>
  <ol id="bus-stops" type="1">
    <!-- Select bus stops from here -->
    <li>Gen. Gurko St.</li>
    <li>Sofia University</li>
    <li>Eagles' Bridge Sq.</li>
    <li>Bulgarian News Agency</li>
    <li>Peyo Yavorov Blvd.</li>
    <li>Aleksandar Zhendov Blvd.</li>
  </ol>
</section>
<div class="wrapper">...</div>
<section>
  <h2>Selected route</h2>
  <h3 id="selected-route">
    "Bus stops: "
    <span>2-5</span>
  </h3>
  <ul id="selected-bus-stops"> == $0
    <li>Sofia University</li>
    <li>Eagles' Bridge Sq.</li>
    <li>Bulgarian News Agency</li>
    <li>Peyo Yavorov Blvd.</li>
  </ul>
</section>
```

Second example:

| | | |
|---|--|---|
| Given bus route <ol style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd.Aleksandar Zhendov Blvd. | Enter bus stops: First bus stop's number: <input type="text" value="1"/> Last bus stop's number: <input type="text" value="3"/> <input type="button" value="Enter"/> | Selected route Bus stops: 2-5 <ul style="list-style-type: none">Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd. |
|---|--|---|

After entering the new bus stops and pressing [Enter] the **previously selected route changes**.

| | | |
|---|--|---|
| Given bus route <ol style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd.Aleksandar Zhendov Blvd. | Enter bus stops: First bus stop's number: <input type="text"/> Last bus stop's number: <input type="text"/> <input type="button" value="Enter"/> | Selected route Bus stops: 1-3 <ul style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq. |
|---|--|---|

Third example:

| | | |
|---|--|---|
| Given bus route <ol style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd.Aleksandar Zhendov Blvd. | Enter bus stops: First bus stop's number: <input type="text" value="4"/> Last bus stop's number: <input type="text" value="7"/> <input type="button" value="Enter"/> | Selected route Bus stops: 1-3 <ul style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq. |
|---|--|---|

Nothing happens after pressing the [Enter] because there is **invalid data**. There is **no 7-th** bus stop, so the **previously selected route does not change**.

| | | |
|---|--|---|
| Given bus route <ol style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq.Bulgarian News AgencyPeyo Yavorov Blvd.Aleksandar Zhendov Blvd. | Enter bus stops: First bus stop's number: <input type="text" value="4"/> Last bus stop's number: <input type="text" value="7"/> <input type="button" value="Enter"/> | Selected route Bus stops: 1-3 <ul style="list-style-type: none">Gen. Gurko St.Sofia UniversityEagles' Bridge Sq. |
|---|--|---|