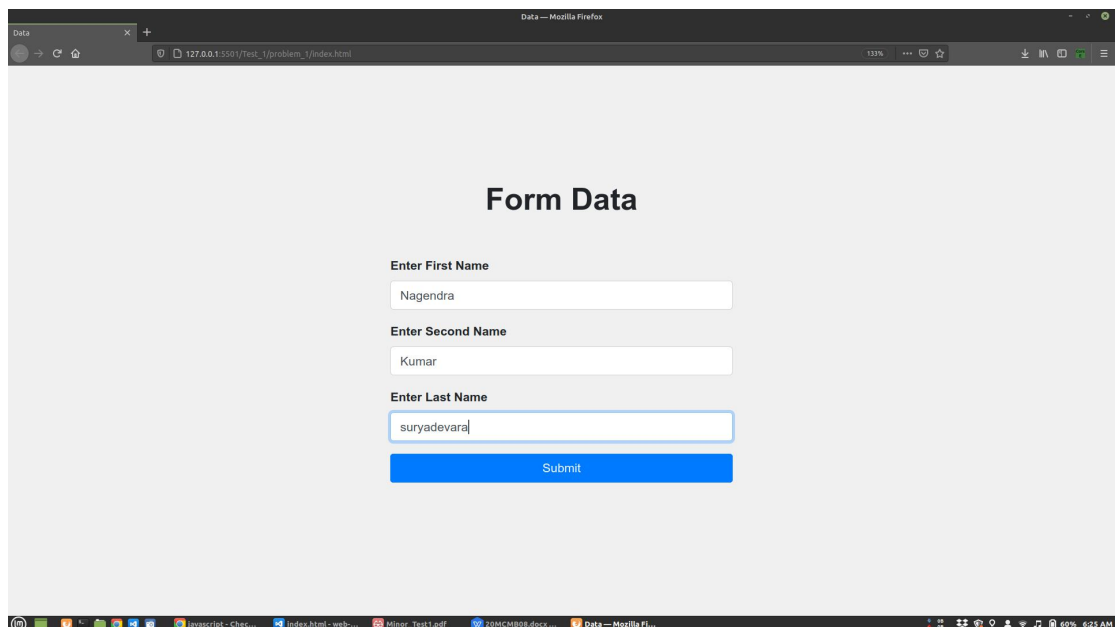
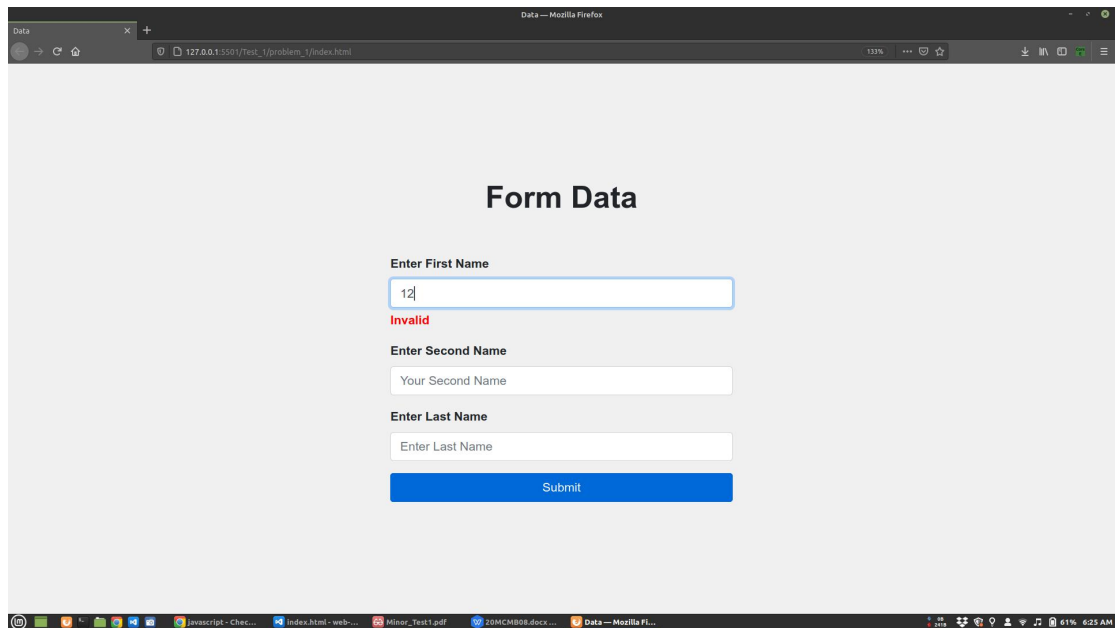


ITLAB: Test-1
Suvam Basak
MTech IT
20MCMB08

STEP-1

The screenshot shows a web browser window with the title 'Data - Mozilla Firefox'. The address bar displays '127.0.0.1:5501/Test_1/problem_1/index.html'. The page content features a form titled 'Form Data' with three input fields labeled 'Enter First Name', 'Enter Second Name', and 'Enter Last Name'. Each field contains placeholder text: 'Your First Name', 'Your Second Name', and 'Enter Last Name' respectively. A blue 'Submit' button is located below the input fields. The browser's status bar at the bottom shows the system clock as 6:24 AM and 61% battery.

This screenshot shows the same web browser window as the previous one, but with a validation error. The 'Form Data' form is displayed, and a red error message 'Please enter your first name!' is shown below the 'Enter First Name' input field. The other input fields and the 'Submit' button remain unchanged. The browser's status bar at the bottom shows the system clock as 6:24 AM and 61% battery.



Code

```
<!doctype html>
<html lang="en">

<head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1, shrink-to-fit=no">

  <!-- Bootstrap CSS -->
```

```
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/boot
strap.min.css"
```

```
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFc
JlSAwiGgFAW/dAiS6JXm" crossorigin="anonymous">
```

```
<title>Data</title>
```

```
<!-- Style -->
```

```
<style>
```

```
  body {
    margin-top: 100px;
    background-color: rgb(240, 240, 240);
  }
```

```
  h1 {
    text-align: center;
    margin: 50px;
  }
```

```
  .fail {
    color: red;
    font-weight: bold;
    font-size: medium;
  }
```

```
</style>
```

```
</head>
```

```
<body>
```

```
  <div class="container">
```

```
    <div class="row d-flex justify-content-center">
```

```
      <div class="col-5">
```

```
        <!-- Registration from -->
```

```
        <h1><b>Form Data</b></h1>
```

```
        <form onsubmit="return false">
```

```
          <div class="form-group">
```

```
            <label for="name"><b>Enter First
Name</b></label>
```

```
              <input type="text" class="form-control"
name="fname" id="fname" aria-describedby="fname_help"
placeholder="Your First Name">
```

```
              <small id="fname_help" class="form-text
fail"></small>
```

```
            </div>
```

```
            <div class="form-group">
```

```
              <label for="sname"><b>Enter Second
Name</b></label>
```

```

        <input type="text" class="form-control"
name="sname" id="sname" aria-describedby="sname_help"
        placeholder="Your Second Name">
        <small id="sname_help" class="form-text
fail"></small>
    </div>
    <div class="form-group">
        <label for="lname_help"><b>Enter Last
Name</b></label>
        <input type="text" class="form-control"
name="lname" id="lname" aria-describedby="lname_help"
        placeholder="Enter Last Name">
        <small id="lname_help" class="form-text
fail"></small>
    </div>
    <button type="submit" class="btn btn-primary
btn-block" id="submit"
        onclick="validate()">Submit</button>
    </form>
</div>
</div>
</div>

<!-- jQuery -->
<script
src="https://code.jquery.com/jquery-3.2.1.slim.min.js"

integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCKRr/rE9/Qpg6aAZGJwFD
MVNA/GpGFF93hXpG5KkN"
        crossorigin="anonymous"></script>

<!-- Validation with jQuery -->
<script>

    function validate() {
        // Retrieve the values from form.
        var fname = document.getElementById('fname').value;
        var sname = document.getElementById('sname').value;
        var lname = document.getElementById('lname').value;

        // REF:
https://stackoverflow.com/questions/32311081/check-for-special
-characters-in-string
        const invalid =
/[ 0123456789`!@#$%^&*()_+\\-=\\[\\]\\{};':"\\|,.<>\\/?~]/;
        var searchString = '';

        // Log.

```

```

console.log(`First : ${fname}`);
console.log(`Senond : ${sname}`);
console.log(`Third : ${lname}`);

// first name validation.
if (" " == fname) {
    document.getElementById("fname_help").innerHTML
= "Please enter your first name!";
    document.getElementById("fname").focus();
    return false;
} if (invalid.test(fname)) {
    document.getElementById("fname_help").innerHTML
= "Invalid";
    document.getElementById("fname").focus();
    return false;
} else {
    document.getElementById("fname_help").innerHTML
= "";
    searchString += fname;
}

// second name validation.
if (invalid.test(sname)) {
    document.getElementById("sname_help").innerHTML
= "Invalid";
    document.getElementById("sname").focus();
    return false;
} else {
    document.getElementById("sname_help").innerHTML
= "";
    if (" " != sname)
        searchString += '+' + sname;
}

// last name validation.
if (invalid.test(lname)) {
    document.getElementById("lname_help").innerHTML
= "Invalid";
    document.getElementById("lname").focus();
    return false;
} else {
    document.getElementById("lname_help").innerHTML
= "";
    if (" " != lname)
        searchString += '+' + lname;
}

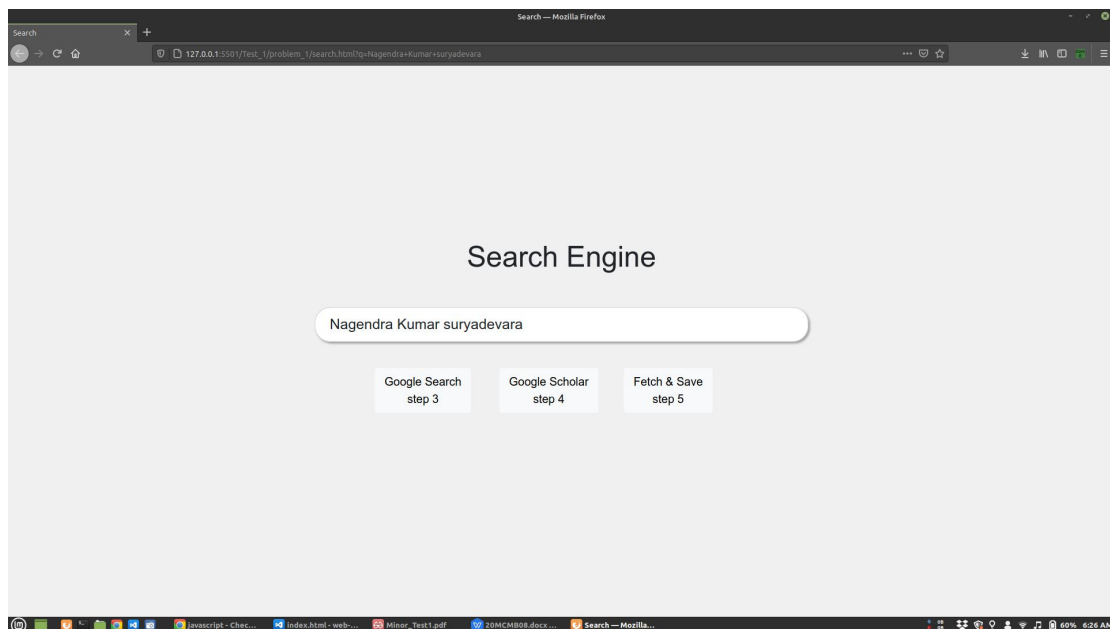
console.log(searchString);

```

```
        // redirect to search page
        window.location.href = 'search.html?q=' +
searchString;
    }
</script>
</body>

</html>
```

STEP-2



Code

```
<!doctype html>
<html lang="en">

<head>
    <!-- Required meta tags -->
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width,
initial-scale=1">

    <!-- Bootstrap CSS -->
```

```
<link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.0.0-beta2/dist/
css/bootstrap.min.css" rel="stylesheet"
```

```
integrity="sha384-BmbxuPwQa2lc/FVzBcNJ7UAyJxM6wuqIj61tLrc4wSX0
szH/Ev+nYRRuWlo1flfl" crossorigin="anonymous">
```

```
<script
src="https://code.jquery.com/jquery-3.2.1.slim.min.js"
```

```
integrity="sha384-KJ3o2DKtIkvYIK3UENzmM7KCKRr/rE9/Qpg6aAZGJwFD
MVNA/GpGFF93hXpG5KkN"
```

```
crossorigin="anonymous"></script>
```

```
<title>Search</title>
```

```
<!-- Style -->
```

```
<style>
```

```
body {
    margin-top: 100px;
    background-color: rgb(240, 240, 240);
}
```

```
h1 {
    text-align: center;
}
```

```
#logo {
    font-size: 50px;
    padding-top: 200px;
    padding-bottom: 50px;
}
```

```
#search_bar {
    padding-top: 10px;
    padding-bottom: 10px;
    padding-right: 20px;
    padding-left: 25px;
    font-size: 25px;
    border-radius: 27px;
    box-shadow: 3px 3px 3px #a1a1a1;
}
```

```
#btn_set {
    margin-top: 45px;
    margin-bottom: 100px;
}
```

```
</style>
```

```
</head>
```

```

<body>
  <div class="container">

    <!-- Logo: Search engine -->
    <div class="row justify-content-center">
      <div class="col-md-5">
        <h1 id="logo">Search Engine</h1>
      </div>
    </div>

    <!-- Input : Search bar -->
    <div class="row justify-content-center">
      <div class="col-md-8">
        <input class="form-control" type="text"
placeholder="Search here" id="search_bar">
      </div>
    </div>

    <!-- Search button -->
    <div class="row">
      <div class="d-flex justify-content-center"
id="btn_set">
        <div class="col-md-2 col-sm-12 col-xs-12">
          <button type="button" class="btn btn-light
btn-lg" id="search_g">Google Search <br> step 3 </button>
        </div>
        <div class="col-md-2 col-sm-12 col-xs-12">
          <button type="button" class="btn btn-light
btn-lg" id="search_s">Google Scholar <br> step 4</button>
        </div>
        <div class="col-md-2 col-sm-12 col-xs-12">
          <button type="button" class="btn btn-light
btn-lg" id="search_f">Fetch & Save <br> step 5</button>
        </div>
      </div>
    </div>

    <!-- JavaScript -->
    <script>
      $(document).ready(function () {
        // getting search key from URL
        let params = new
URLSearchParams(window.location.search);
        const searchKey = params.get('q');
        // Log
        console.log(searchKey);
        $("#search_bar").val(searchKey);
      });
    </script>
  </div>

```



```

// search result page
$("#search_g").click(function () {
    console.log("Google Search clicked");
    window.location.href = "result.html?q=" +
searchKey;
});

// Google Scholar page
$("#search_s").click(function () {
    console.log("Google Scholar clicked");
    window.location.href =
"https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=" +
searchKey;
});

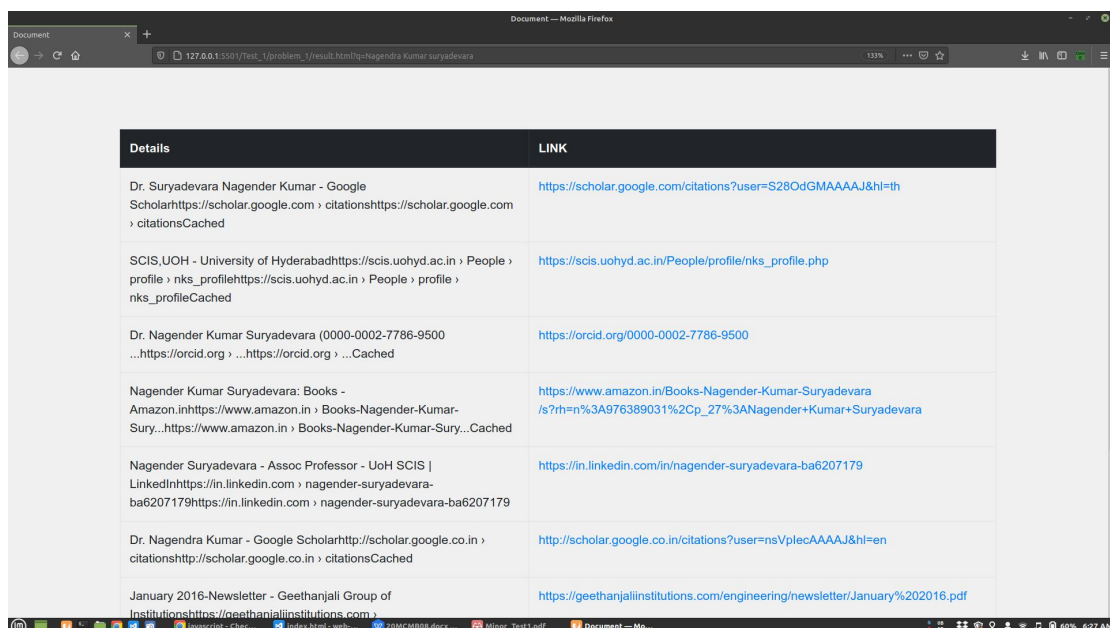
// fetch (get)
$("#search_f").click(function () {
    console.log("fetch (get) clicked");
    window.location.href = "fetchPage.html?q=" +
searchKey;
});

});
</script>
</body>

</html>

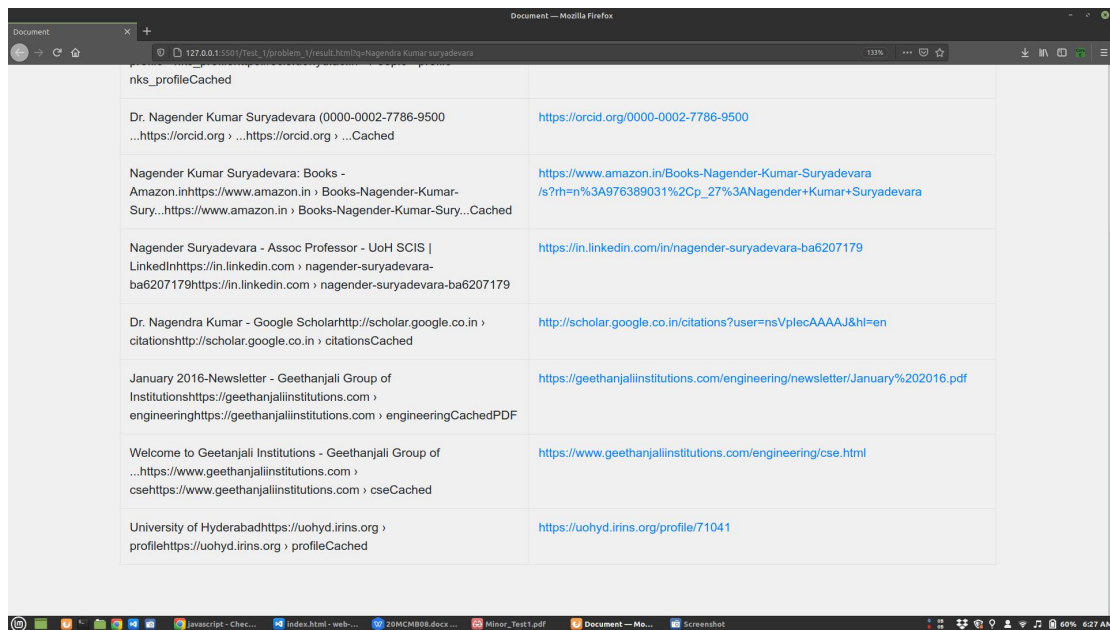
```

STEP-3



The screenshot shows a web browser window with a table containing search results. The table has two columns: 'Details' and 'LINK'. The results include citations from Google Scholar, a profile from SCIS, UOH, an ORCID entry, Amazon books, a LinkedIn profile, and a newsletter from Geethanjali Group of Institutions.

Details	LINK
Dr. Suryadevara Nagender Kumar - Google Scholar https://scholar.google.com › citations Cached	https://scholar.google.com/citations?user=S28OdGMAAAJ&hl=th
SCIS, UOH - University of Hyderabad https://scis.uohyd.ac.in › People › profile › nks_profile Cached	https://scis.uohyd.ac.in/People/profile/nks_profile.php
Dr. Nagender Kumar Suryadevara (0000-0002-7786-9500) ...https://orcid.org › ...https://orcid.org › ...Cached	https://orcid.org/0000-0002-7786-9500
Nagender Kumar Suryadevara: Books - Amazon.in https://www.amazon.in › Books-Nagender-Kumar-Suryadevara Cached	https://www.amazon.in/Books-Nagender-Kumar-Suryadevara/s?rh=n%3A976389031%2Cp_27%3ANagender+Kumar+Suryadevara
Nagender Suryadevara - Assoc Professor - UoH SCIS LinkedIn https://in.linkedin.com › nagender-suryadevara-ba6207179 Cached	https://in.linkedin.com/in/nagender-suryadevara-ba6207179
Dr. Nagendra Kumar - Google Scholar http://scholar.google.co.in › citations Cached	http://scholar.google.co.in/citations?user=nsVplecAAAAJ&hl=en
January 2016-Newsletter - Geethanjali Group of Institutions https://geethanjalinstitutions.com ›	https://geethanjalinstitutions.com/engineering/newsletter/January%202016.pdf



Code

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
  <title>Document</title>
  <link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/boot
strap.min.css"

integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFc
JlSAwiGgFAW/dAiS6JXm" crossorigin="anonymous">

  <!-- jquery -->
  <script src="jquery-3.6.0.min.js"></script>
  <script>
    $(document).ready(function () {
      // get the search key from URL
      let params = new
URLSearchParams(window.location.search);
      const searchKey = params.get('q');
      url = "https://www.google.com/search?q=" + searchKey;

      // Fetch the page.
```



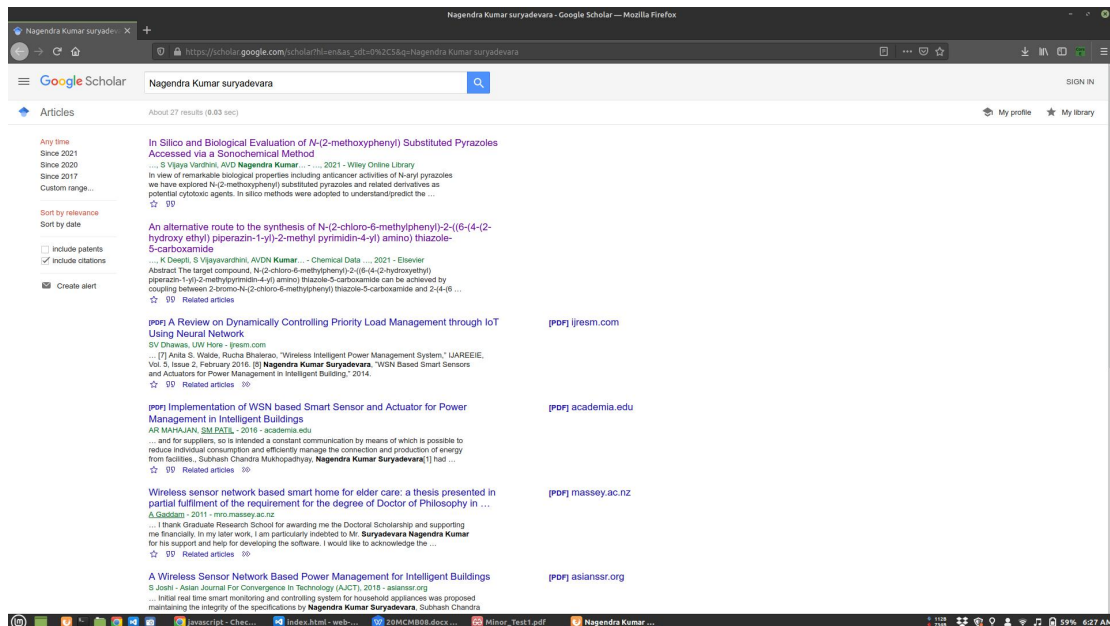
```

<!-- Headin of the table -->
<tr>
  <th scope="col">Details</th>
  <th scope="col">LINK</th>
</tr>
</thead>
<!-- Body -->
<tbody></tbody>
</table>
</div>
</div>
</div>
</body>

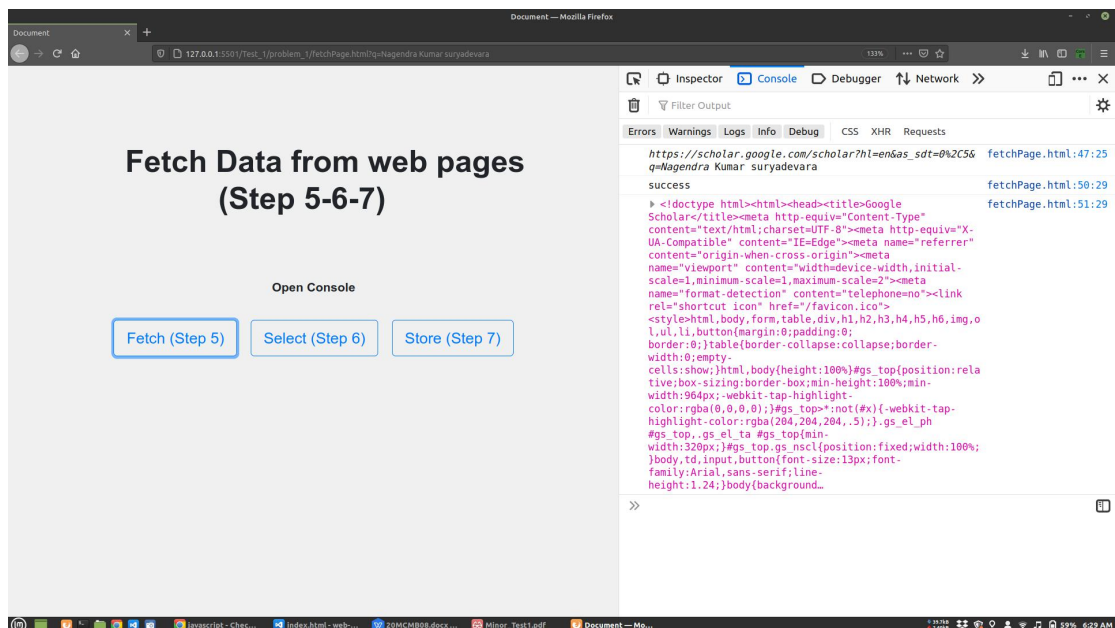
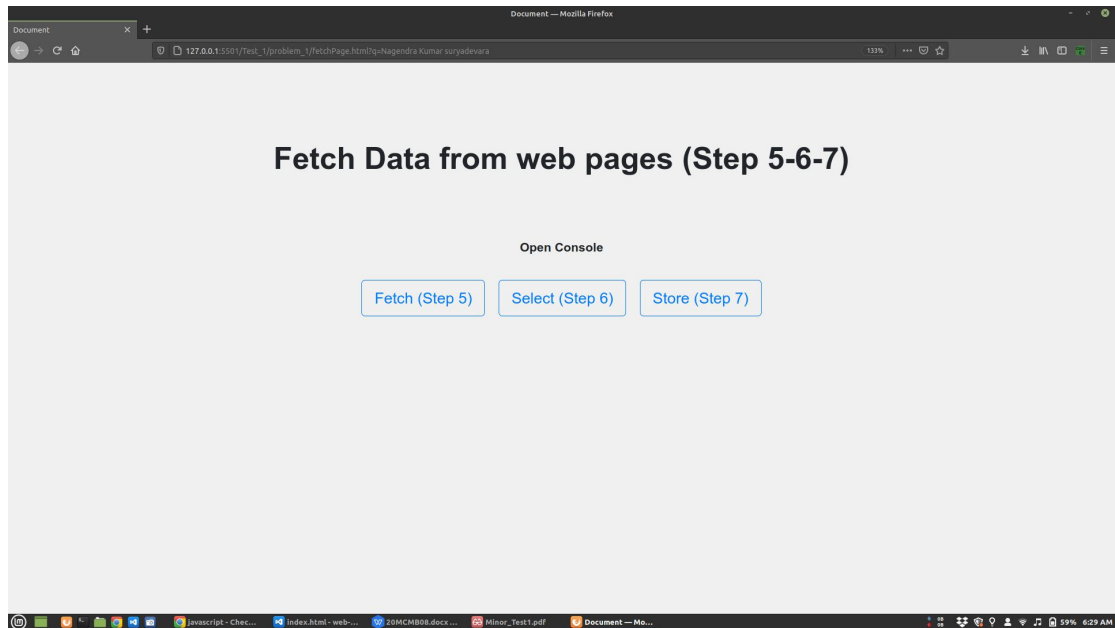
</html>

```

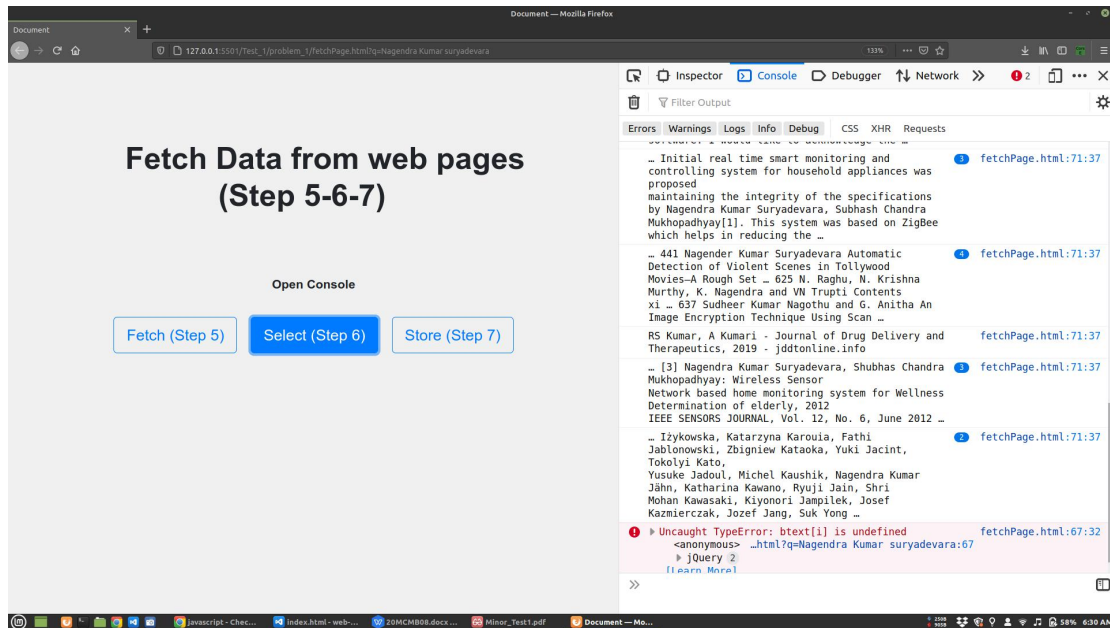
STEP-4



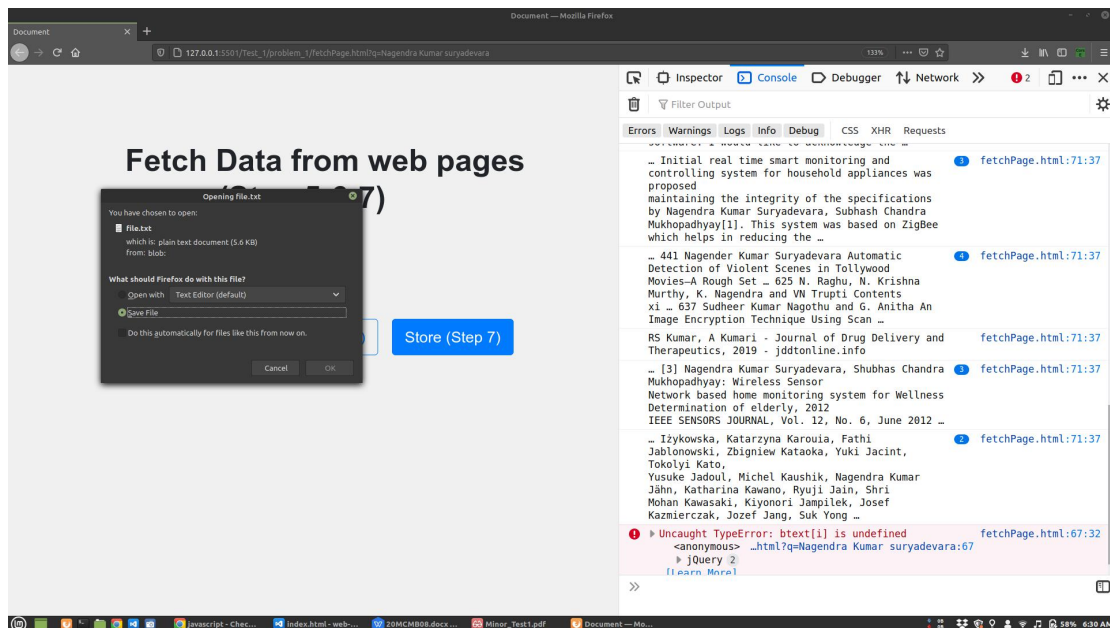
STEP-5

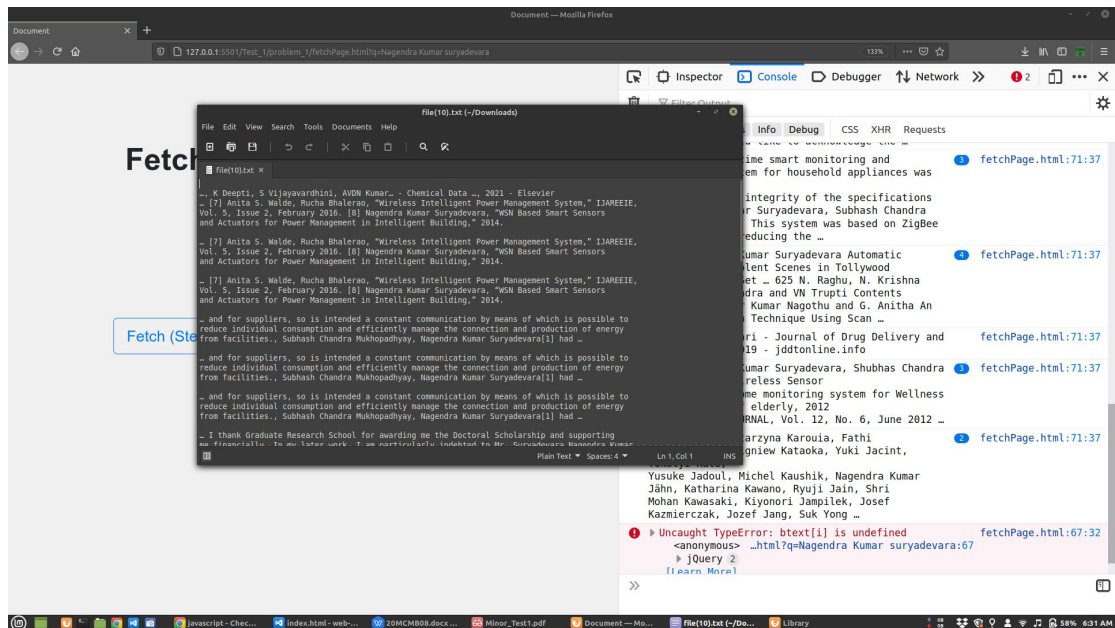
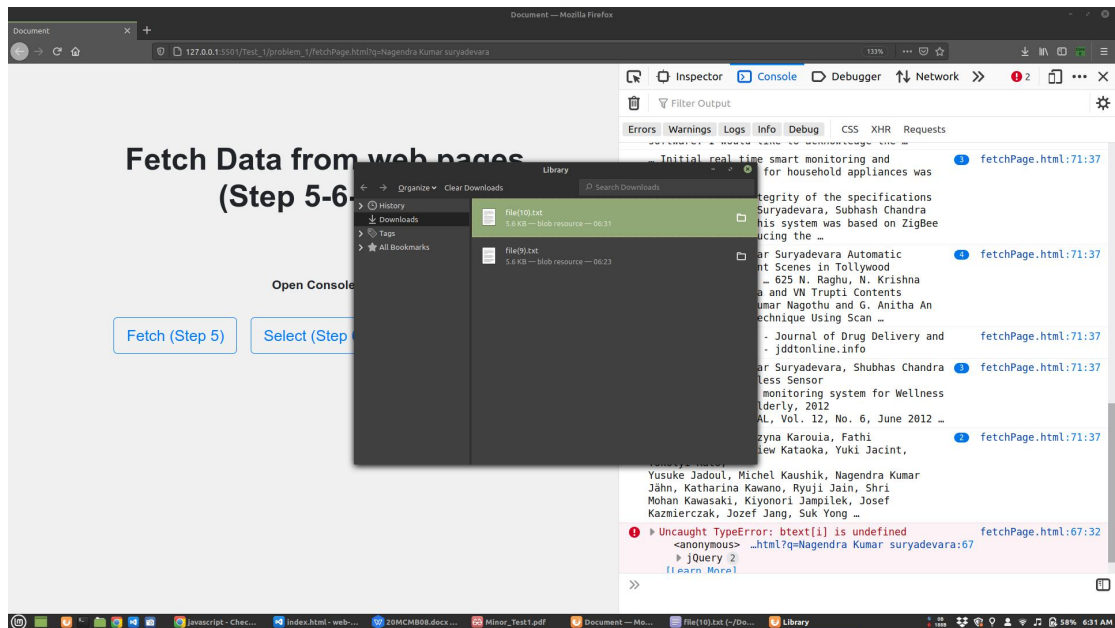


STEP-6



STEP-7





Code

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <meta http-equiv="X-UA-Compatible" content="IE=edge">
  <meta name="viewport" content="width=device-width,
initial-scale=1.0">
```

```
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/boot
strap.min.css"
```

```
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFc
JlSAwiGgFAW/dAiS6JXm" crossorigin="anonymous">
```

```
<script src="jquery-3.6.0.min.js"></script>
```

```
<!-- Style -->
```

```
<style>
```

```
    body {
        margin-top: 50px;
        margin-bottom: 50px;
        background-color: rgb(240, 240, 240);
    }
```

```
    h1 {
        text-align: center;
        margin: 50px;
    }
```

```
    b {
        margin: 30px;
    }
```

```
</style>
```

```
<!-- jquery -->
```

```
<script>
```

```
    $(document).ready(function () {
        // get the search key from URL
        var params = new
URLSearchParams(window.location.search);
        const searchKey = params.get('q');
        // To store selected data to be downloaded
        var fileText = "";
        const baseUrl =
"https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=";
```

```
        // search key words
        keyword = searchKey.toLowerCase().split(" ");
        // fetched data store.
        var fetchedData;
```

```
        // fetch web page step 5
        $("#fetch").click(function () {
            let url = baseUrl + searchKey;
            console.log(url);
            // fetching page
            $.get(url, function (data, status) {
                console.log(status);
```



```

        console.log(data);
        fetchedData = data;
    });

});

// select the values corresponding to the entered name
$("#select").click(function () {
    if (fetchedData == undefined) {
        alert('Fetch data first!');
        return false;
    }

    // select the bold text.
    var btext = $(fetchedData).find("b");
    for (let i = 0; i <= btext.length; i++) {
        let name = btext[i].innerText.toLowerCase();
        // matching with keywords
        for (let k = 0; k < keyword.length; k++) {
            if (name === keyword[k]) {

console.log(btext[i].parentElement.innerText);
                // updating string to be downloaded as
file.
                fileText += "\n" +
btext[i].parentElement.innerText;
                break;
            }
        }
    }
});

//REF : https://www.youtube.com/watch?v=_HZdLuGL8Ho
// store the selected values from consol.log onto a text
file

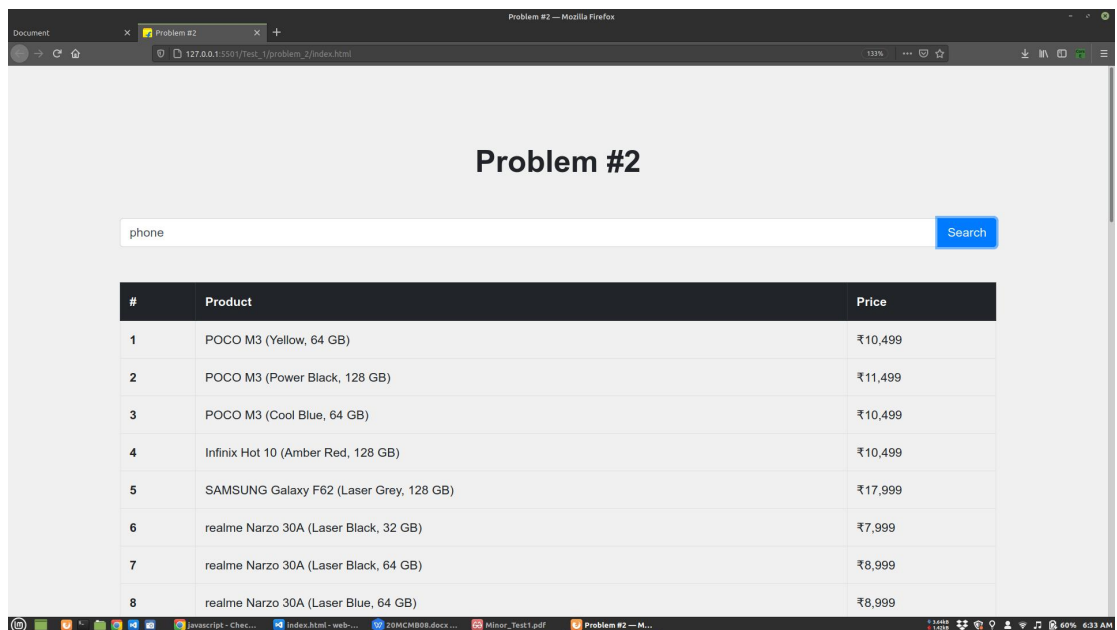
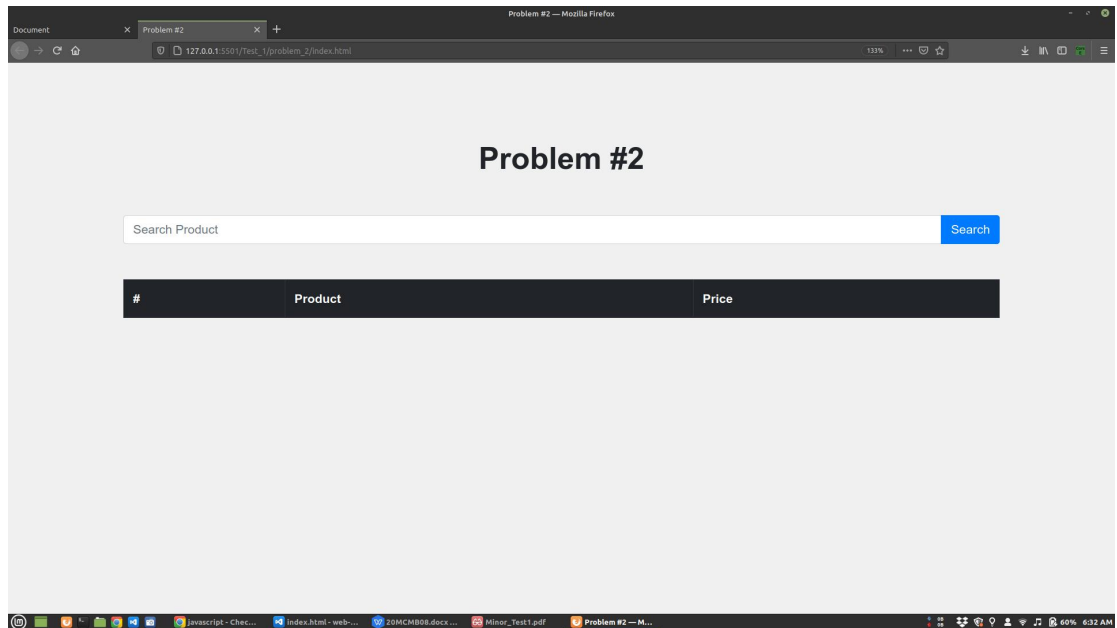
$("#test").click(function () {
    // generate donwload link.
    const blob1 = new Blob([fileText], { type:
"text/plain" });
    $("#store").attr("href",
URL.createObjectURL(blob1));
});

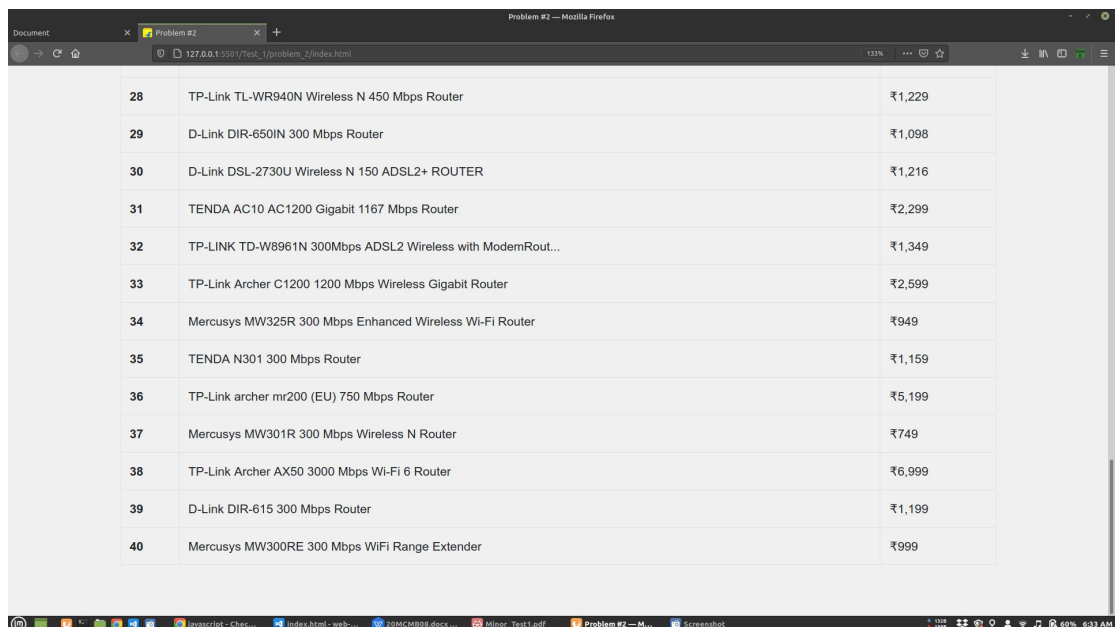
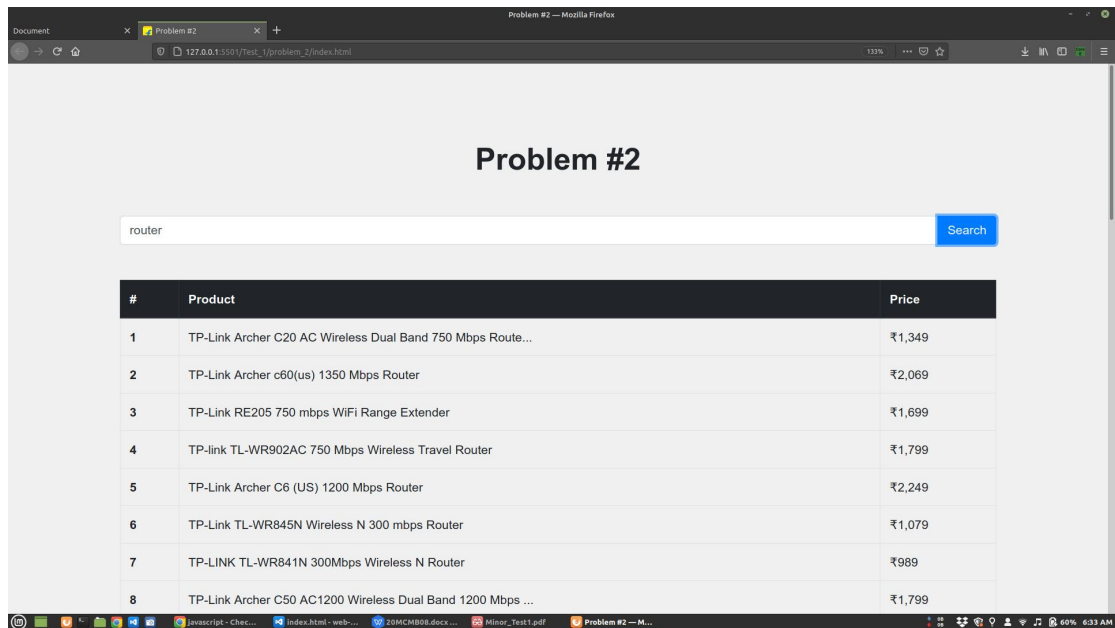
});
</script>

<title>Document</title>
</head>

```


Problem #2





Code

```
<!doctype html>
<html lang="en">

<head>
  <!-- Required meta tags -->
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width,
initial-scale=1, shrink-to-fit=no">

  <!-- Bootstrap CSS -->
```

```
<link rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/boot
strap.min.css"
```

```
integrity="sha384-Gn5384xqQ1aoWXA+058RXPxPg6fy4IWvTNh0E263XmFc
JlSAwiGgFAW/dAiS6JXm" crossorigin="anonymous">
```

```
<title>Problem #2</title>
```

```
<!-- Style -->
```

```
<style>
```

```
body {
    margin-top: 50px;
    margin-bottom: 50px;
    background-color: rgb(240, 240, 240);
}
```

```
h1 {
    text-align: center;
    margin: 50px;
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<div class="container">
```

```
<div class="row d-flex justify-content-center">
```

```
<h1><b>Problem #2</b></h1>
```

```
<!-- search input -->
```

```
<div class="input-group mb-3">
```

```
<input type="text" class="form-control"
placeholder="Search Product" aria-label="Recipient's username"
aria-describedby="basic-addon2" id="key">
```

```
<div class="input-group-append">
```

```
<button class="btn btn-primary"
type="button">Search</button>
```

```
</div>
```

```
</div>
```

```
<!-- result show -->
```

```
<div class="input-group" style="margin-top: 30px;">
```

```
<!-- Table to show products -->
```

```
<table class="table table-bordered" id="result">
```

```
<thead class="thead-dark">
```

```
<!-- Headin of the table -->
```

```
<tr>
```

```
<th scope="col">#</th>
```

```
<th scope="col">Product</th>
```

```
<th scope="col">Price</th>
```

```

        </tr>
    </thead>
    <!-- Body -->
    <tbody></tbody>
</table>
</div>
</div>
</div>

<!-- jQuery lib-->
<script src="jquery-3.6.0.min.js"></script>

<!-- jQuery -->
<script>
    $(document).ready(function () {
        // base URL
        const mainUrl = "https://www.flipkart.com/search?q=";
        var url;

        $("button").click(function () {
            // console.log($("#key").val());

            // search url
            url = mainUrl + $("#key").val();
            console.log(url);

            // fetch the webpage
            $.get(url, function (data, status) {
                console.log(status);
                console.log(data);

                // product name
                var productName = $(data).find("a.s1Q9rs");
                // product price
                var productPrice =
$(data).find("div._30jeq3");
                // total product fetched
                var total = $(data).find("a.s1Q9rs").length;

                // update the table
                $("#result").find("tr:gt(0)").remove();
                for (let i = 0; i <= total; i++) {
                    console.log(i);

console.log(productName[i].firstChild.data);

console.log(productPrice[i].lastChild.data);

                    // adding new row with product details.

```

```
        let row = `

---


```