

CSI3023

Advanced Server-Side Programming

Winter Semester 2023 – '24

Digital Assignment – 3

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Code –

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1">
  <title>Text Processing and Armstrong Number Checker</title>
  <!-- Bootstrap CSS -->
  <link rel="stylesheet"
href="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/css/bootstrap.min.css">
  <style>
    body {
      padding-top: 2rem;
      background-color: #f8f9fa;
    }
    .container {
      max-width: 600px;
    }
    .card {
      box-shadow: 0 0.15rem 1.75rem 0 rgba(58, 59, 69, 0.15);
    }
    .card-header {
      background-color: #28a745; /* Changed color to green */
      color: white;
    }
    .form-group {
      margin-bottom: 1rem;
    }
    .btn-primary {
      background-color: #28a745; /* Changed color to green */
      border-color: #28a745; /* Changed border color to green */
    }
    .btn-primary:hover {
      background-color: #218838; /* Darker green on hover */
      border-color: #218838; /* Darker green border on hover */
    }
    .result {
      margin-top: 1rem;
      font-size: 1.25rem;
      font-weight: bold; /* Bold result text */
    }
    .nav-tabs .nav-link {
      color: white;
      background-color: #007bff;
    }
    .nav-tabs .nav-link.active {
      color: #000;
      background-color: #ffffff;
    }
  </style>
</head>
<body>
  <div class="container">
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<div class="card">
  <div class="card-header">
    <ul class="nav nav-tabs card-header-tabs" id="myTab" role="tablist">
      <li class="nav-item">
        <a class="nav-link active" id="text-tab" data-toggle="tab"
href="#text" role="tab" aria-controls="text" aria-selected="true">Text
Processing</a>
      </li>
      <li class="nav-item">
        <a class="nav-link" id="armstrong-tab" data-toggle="tab"
href="#armstrong" role="tab" aria-controls="armstrong" aria-
selected="false">Armstrong Number Checker</a>
      </li>
    </ul>
  </div>
  <div class="card-body">
    <div class="tab-content" id="myTabContent">
      <div class="tab-pane fade show active" id="text" role="tabpanel"
aria-labelledby="text-tab">
        <form id="textForm">
          <div class="form-group">
            <label for="inputText">Enter text:</label>
            <input type="text" class="form-control"
id="inputText" name="inputText" required>
          </div>
          <div class="form-group">
            <label for="deleteChar">Delete character:</label>
            <input type="text" class="form-control"
id="deleteChar" name="deleteChar" maxlength="1">
          </div>
          <div class="form-group">
            <label for="joinText">Join text:</label>
            <input type="text" class="form-control"
id="joinText" name="joinText">
          </div>
          <div class="form-group">
            <label for="replaceChar">Replace character
(old,new):</label>
            <input type="text" class="form-control"
id="replaceChar" name="replaceChar" placeholder="old,new">
          </div>
          <div class="form-check">
            <input type="checkbox" class="form-check-input"
id="toUppercase" name="toUppercase">
            <label class="form-check-label"
for="toUppercase">Convert to UPPERCASE</label> <!-- Changed to UPPERCASE -->
          </div>
          <div class="form-check">
            <input type="checkbox" class="form-check-input"
id="toLowercase" name="toLowercase">
            <label class="form-check-label"
for="toLowercase">Convert to lowercase</label>
          </div>
        </form>
      </div>
    </div>
  </div>

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        <div class="form-check">
            <input type="checkbox" class="form-check-input"
id="reverse" name="reverse">
                <label class="form-check-label"
for="reverse">Reverse text</label>
            </div>
            <button type="button" class="btn btn-primary btn-block"
onclick="processText()">Process Text</button>
        </form>
        <div id="textResult" class="result"></div>
    </div>
    <div class="tab-pane fade" id="armstrong" role="tabpanel" aria-
labelledby="armstrong-tab">
        <form id="armstrongForm">
            <div class="form-group">
                <label for="number">Enter a number:</label>
                <input type="number" class="form-control"
id="number" name="number" required>
            </div>
            <button type="button" class="btn btn-primary btn-block"
onclick="checkArmstrong()">Check Armstrong Number</button>
        </form>
        <div id="armstrongResult" class="result"></div>
    </div>
</div>
</div>
</div>
</div>

<!-- Optional JavaScript -->
<!-- jQuery first, then Popper.js, then Bootstrap JS -->
<script src="https://code.jquery.com/jquery-3.3.1.slim.min.js"></script>
<script
src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.7/umd/popper.min.js"></sc
ript>
<script
src="https://stackpath.bootstrapcdn.com/bootstrap/4.3.1/js/bootstrap.min.js"></scrip
t>
<script>
    function processText() {
        var inputText = document.getElementById('inputText').value;
        var deleteChar = document.getElementById('deleteChar').value;
        var joinText = document.getElementById('joinText').value;
        var replaceChar = document.getElementById('replaceChar').value;
        var toUppercase = document.getElementById('toUppercase').checked;
        var toLowercase = document.getElementById('toLowercase').checked;
        var reverse = document.getElementById('reverse').checked;

        if (deleteChar) {
            inputText = inputText.replaceAll(deleteChar, '');
        }

        if (joinText) {

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        inputText += joinText;
    }

    if (replaceChar) {
        var replacements = replaceChar.split(',');
        inputText = inputText.replaceAll(replacements[0], replacements[1]);
    }

    if (toUppercase) {
        inputText = inputText.toUpperCase();
    }

    if (toLowerCase) {
        inputText = inputText.toLowerCase();
    }

    if (reverse) {
        inputText = inputText.split('').reverse().join('');
    }

    document.getElementById('textResult').innerHTML = "<p class='text-
success'>Processed Text: " + inputText + "</p>";
    }

function checkArmstrong() {
    var number = document.getElementById('number').value;
    var originalNumber = number;
    var sum = 0;
    var numberOfDigits = String(number).length;

    while (number > 0) {
        var digit = number % 10;
        sum += Math.pow(digit, numberOfDigits);
        number = Math.floor(number / 10);
    }

    if (sum == originalNumber) {
        document.getElementById('armstrongResult').innerHTML = "<p class='text-
success'>" + originalNumber + " is an Armstrong number.</p>";
    } else {
        document.getElementById('armstrongResult').innerHTML = "<p class='text-
danger'>" + originalNumber + " is not an Armstrong number.</p>";
    }
}

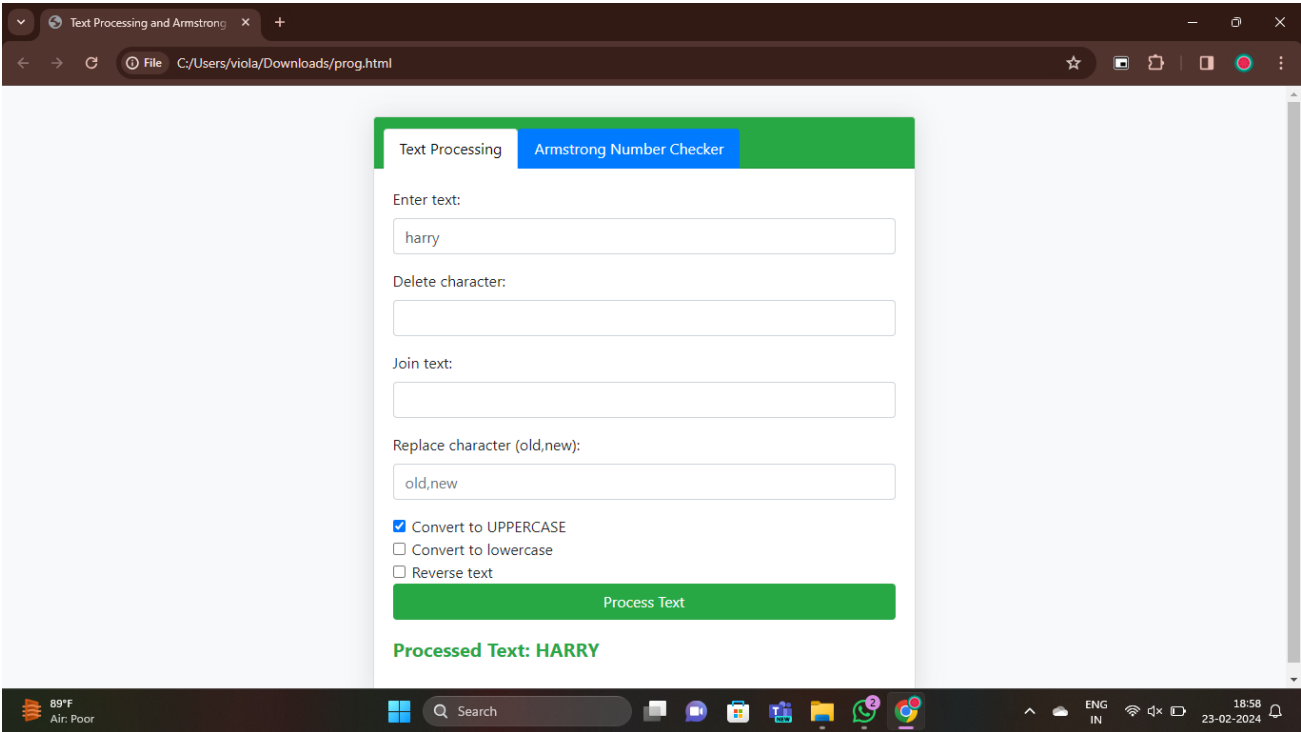
</script>
</body>
</html>

```

Screenshots –

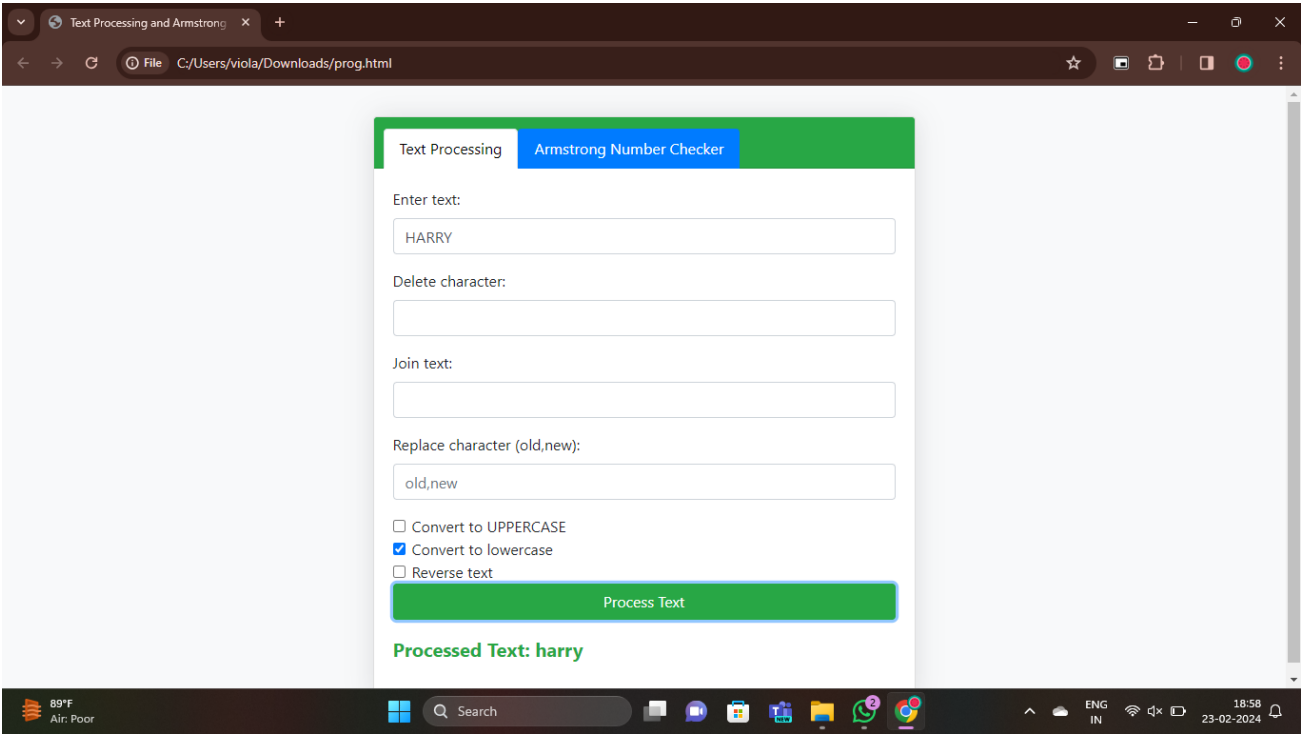
Case 1 –

(String Manipulation) Convert to UPPERCASE –



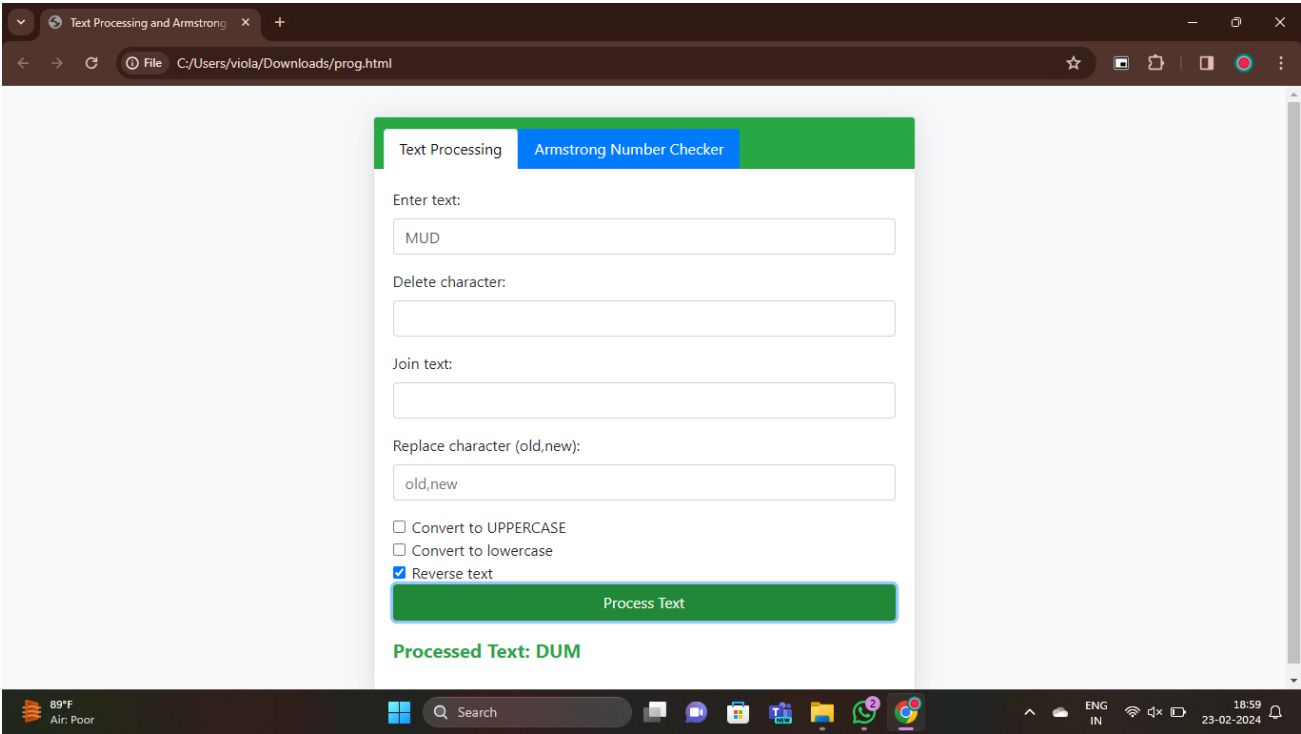
Case 2 –

(String Manipulation) Convert to lowercase –



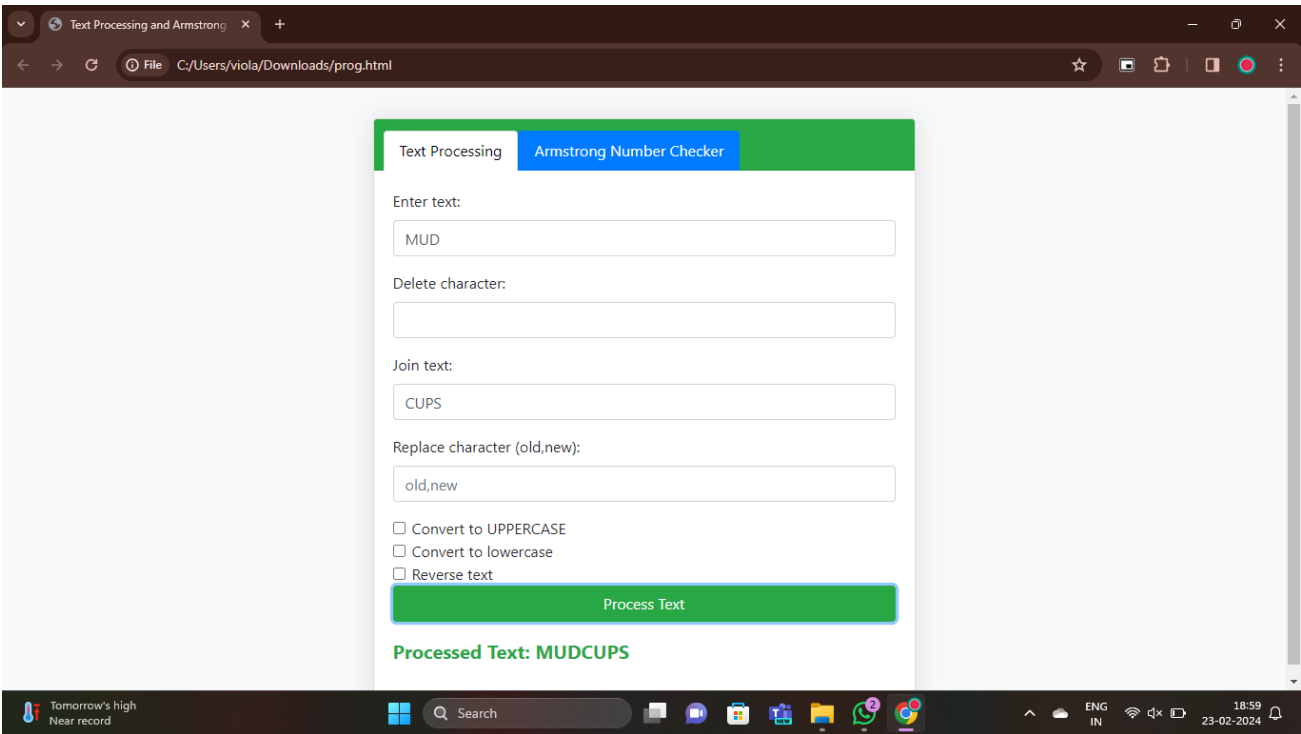
Case 3 –

(String Manipulation) Reverse String –



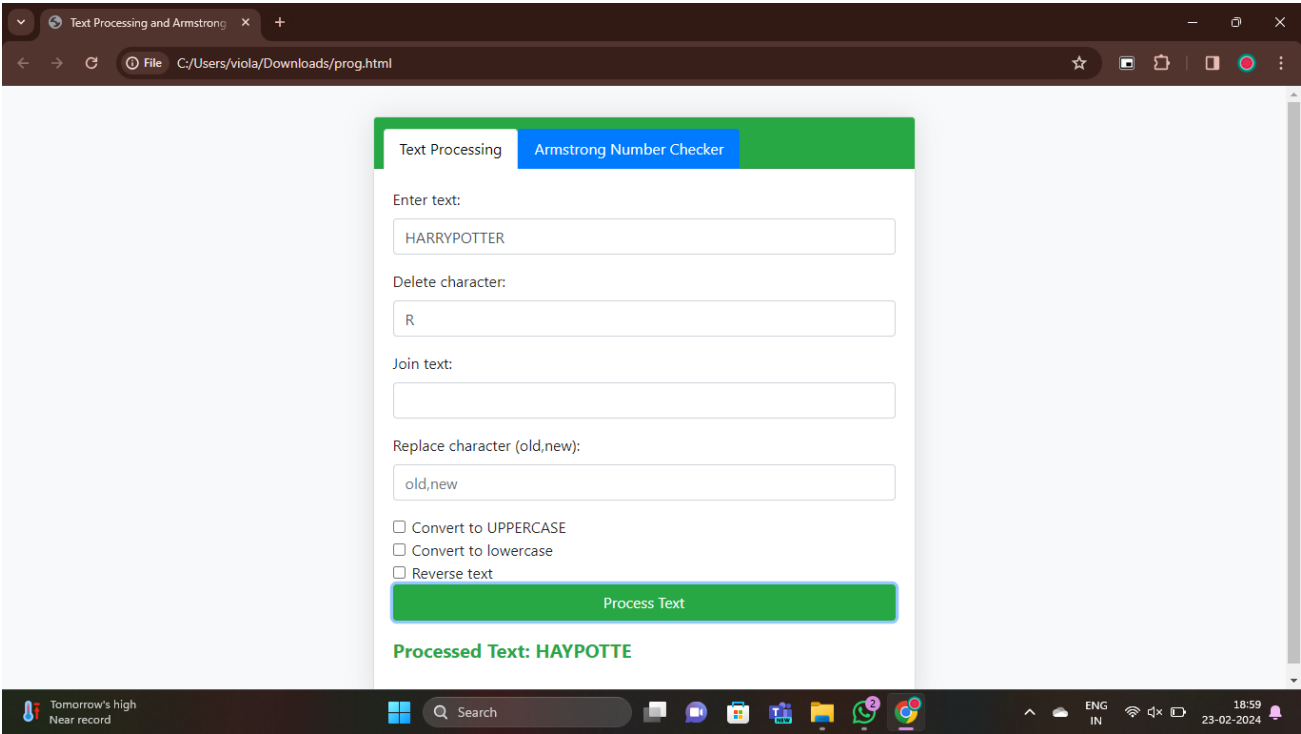
Case 4 –

(String Manipulation) Delete Character –



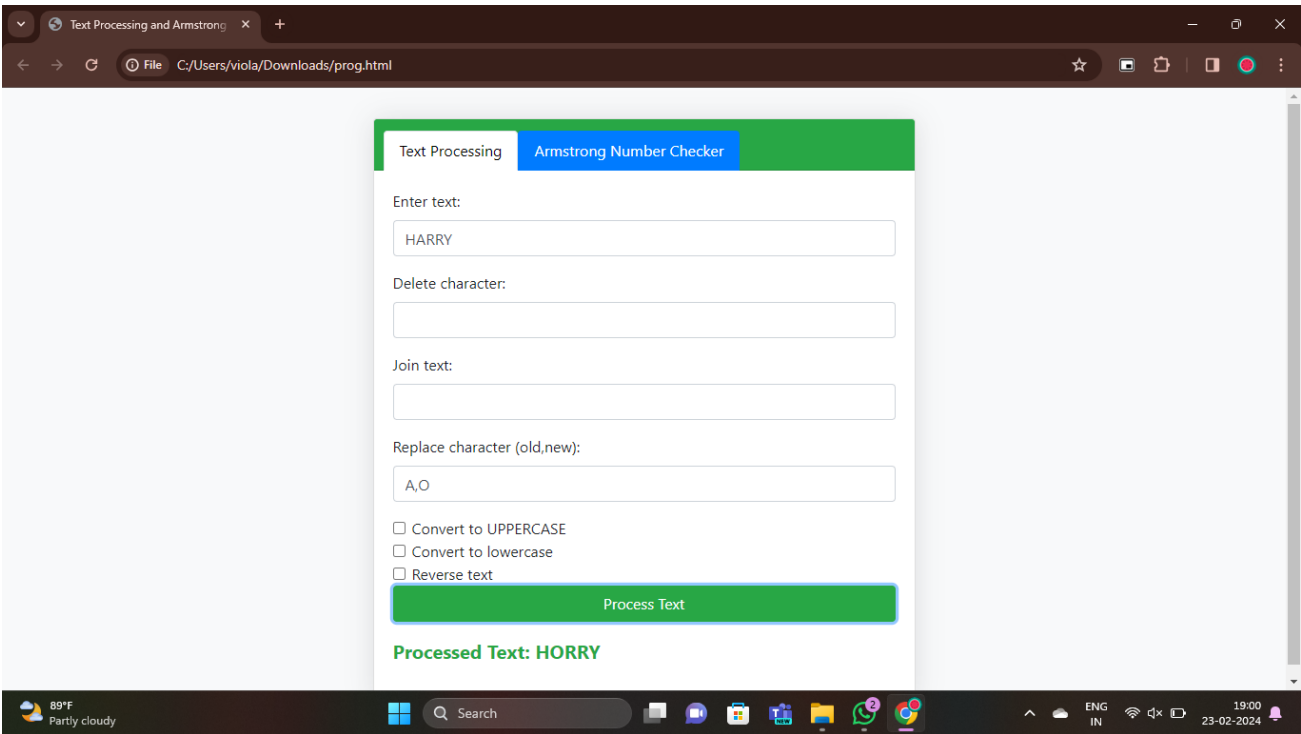
Case 5 –

(String Manipulation) Join String –



Case 6 –

(String Manipulation) Replace String –



Case 7 –

Armstrong Number –

