

JavaScript Regular Expressions and Pattern matching within Strings Email Extract



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Regex with match and matchAll() methods

```
const txtArea = document.querySelector('textarea');
const btn = document.querySelector('button');
const res = document.querySelector('.results');

const str1 = 'Hello World. I love JavaScript!';
txtArea.value = str1;

const rexp = /love/g;
const rex = /love/;

btn.addEventListener('click',()=>{
  const txt = txtArea.value;
  const finder1 = txt.match(rex);
  console.log(finder1);
  const finder2 = txt.match(rex);
  console.log(finder2);
  const finder = [...txt.matchAll(rexp)];
  console.log(finder);
  let html = "";
  if(finder!=null) {
    finder.forEach((r,i)=>{
      html += `<div>Found ${r[0]} at index value ${r.index}</div>`;
    })
  }else{
    html = 'Not found in the string';
  }
}
```

```
    res.innerHTML = html;
  })
```

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript </title>
</head>
<body>
  <div class="output">
    <textarea name="txtarea"></textarea> <br>
    <button>Checker</button>
    <div class="results"></div>
  </div>
  <script src="code.js"></script>
</body>
</html>
```

Use of test() and exec()

```
const txtArea = document.querySelector('textarea');
const btn = document.querySelector('button');
const res = document.querySelector('.results');

const str1 = 'Hello love World. I love JavaScript!';
txtArea.value = str1;

//const rexp = /love/g;
```

```

const rexp = RegExp('love','g');

btn.addEventListener('click',()=>{
  const txt = txtArea.value;
  //const res = rexp.test(txt);
  while((arr = rexp.exec(txt)) !== null){
    console.log(`found at starting index ${arr.index} ending index
    ${rexp.lastIndex}`);
  }
  const res = rexp.exec(txt);
  console.log(res);
})

```

replace() and replaceAll() methods

```

const txtArea = document.querySelector('textarea');
const btn = document.querySelector('button');
const res = document.querySelector('.results');

const str1 = 'Hello love World. I love JavaScript!';
const rexp = RegExp('love','g');
const reg = /love/gi;
const reg1 = /love/g;
txtArea.value = str1;

btn.addEventListener('click',()=>{
  const str = txtArea.value;

```

```
const str2 = str.replace(reg, 'enjoy');
const str3 = str.replaceAll(reg1, 'fun');
const str4 = str.replaceAll('love', 'fun');
const str5 = str.replace('love', 'like');
res.innerHTML = str3;
console.log(str);
})
```

search() method

```
const txtArea = document.querySelector('textarea');
const btn = document.querySelector('button');
const res = document.querySelector('.results');

const str1 = 'Hello love World. I love JavaScript!';
const reg = /love/i;
txtArea.value = str1;

btn.addEventListener('click', () => {
  const str = txtArea.value;
  const rep = str.search(reg);
  if (rep === -1) {
    res.textContent = `Result ${reg} not found in the string!`;
  } else {
    res.textContent = `Result ${reg} found at index value ${rep}`;
  }
  console.log(rep);
});
```

})

Find Email Pattern

```
rr=@ 123456
svekis.1@example.com I love
JavaScript!
svekis_2@example.com svekis-
2@example.comHello World.
rr=@ 123456
svekis.1@example.com I love
JavaScript!
svekis 2@example.com svekis-
```

Checker

```
svekis.1@example.com
svekis_2@example.com
svekis-2@example.com
svekis-2@example.comHello
```

```
const txtArea = document.querySelector('textarea');
const btn = document.querySelector('button');
const res = document.querySelector('.results');
```

```
const str1 = 'Hello World. rr=@ 123456 svekis.1@example.com I love
JavaScript! svekis_2@example.com svekis-2@example.com';
```

```

txtArea.value = str1;
const regex = /([A-Za-z0-9._-]+@[A-Za-z0-9._-]+\.[A-Za-z0-9._-]+)/g;

btn.addEventListener('click',()=>{
  const str = txtArea.value;
  const contents = str.match(regex);
  console.log(contents);
  if(contents == null){
    res.innerHTML = 'No match was found!';
  }
  else{
    res.innerHTML = "";
    const holder = [];
    contents.forEach(email =>{
      if(!holder.includes(email)){
        holder.push(email);
        const el = document.createElement('div');
        el.textContent = email;
        res.append(el);
      }
    })
  }
})

```

Email Extractor Project

Add Text Content

```
svekis.laurence1000@example.com test hello world svekis-1@example.com
svekis_2@example.com svekis.laurence@example.com test hello world
svekis-1@example.com svekis_2@example.com svekis.laurence@example.com
test hello world svekis-1@example.com svekis_2@example.com
svekis.laurence@example.com test hello world svekis-1@example.com
svekis_2@example.com svekis.laurence@example.com test hello world
svekis-1@example.com svekis_2@example.com svekis.laurence@example.com
test hello world svekis-1@example.com svekis_2@example.com
```

Email separator

.

Get Emails

Found emails : (3)

svekis.laurence@example.com, svekis-1@example.com, svekis_2@example.com

Download 3 Emails

Found emails : (4)

svekis.laurence1000@example.com, svekis-1@example.com, svekis_2@example.com, svekis.laurence@example.com

Download 4 Emails

```
<!DOCTYPE html>
<html>
<head>
<title>JavaScript </title>
<style>
  label{
    display:block;
  }
  textarea{
    width:90%;
    min-height:40px;
  }
  .btn1{
    margin-top:10px;
  }
  .btn{
    display:block;
    background-color:black;
    color:white;
```



```

}
.box{
  padding:10px;
  border:1px solid #ddd;
}
</style>
</head>
<body>
<div>
  <label for="txtContent">Add Text Content</label>
  <textarea id="txtContent"></textarea>
  <label for="sep">Email separator</label>
  <select id="sep">
    <option value=", " selected>,</option>
    <option value=" - " >-</option>
    <option value=" " >space</option>
    <option value=" _ " >_</option>
    <option value="; " >;</option>
  </select>
  <div><button class="btn1">Get Emails</button></div>

  <div class="results"></div>
</div>
<script src="code.js"></script>
</body>
</html>

```

```

const txt1 = document.querySelector('#txtContent');
const btn = document.querySelector('button');
const res = document.querySelector('.results');
const sel = document.querySelector('#sep');
//const str = 'svekis.laurence@example.com test hello world
svekis-1@example.com svekis_2@example.com';
//txt1.value = str;

btn.addEventListener('click',getEmails);

function getEmails(){
  const temp = txt1.value;
  const regexp = /([A-Za-z0-9._-]+@[A-Za-z0-9._-]+\.[A-Za-z0-9._-]+)/gi;
  const emailsRaw = temp.match(regexp);
  const emails = [];
  if(emailsRaw != null ){
    emailsRaw.forEach(email =>{
      if(!emails.includes(email)){
        emails.push(email);
      }
    });
  }
  const main = document.createElement('div');
  main.classList.add('box');
  res.append(main);
  const div = document.createElement('div');
  div.textContent = `Found emails : (${emails.length})`;
  main.append(div);
  if(emails.length > 0){

```

```

const txta= document.createElement('textarea');
const myEmails = emails.join(sep.value);
txta.value = myEmails;
main.append(txta);
txta.focus();
txta.addEventListener('click',()=>{
  console.log('selected');
  txta.select();
})
downBtn = document.createElement('button');
downBtn.textContent = `Download ${emails.length} Emails`;
downBtn.classList.add('btn');
main.append(downBtn);
downBtn.addEventListener('click',()=>{
  const fileName = 'Emails.txt';
  const a = document.createElement('a');
  a.setAttribute('href','data:text/plain;charset=utf-8,'+encodeURIComponent(
myEmails));
  a.setAttribute('download',fileName);
  a.style.display='none';
  document.body.append(a);
  a.click();
  document.body.removeChild(a);
})
}
console.log(emailsRaw);
console.log(emails);
}

```

How to create a text file download

```
function maker(){
  const fileName = 'myFile.txt';
  const a = document.createElement('a');

  a.setAttribute('href','data:text/plain;charset=utf-8,'+encodeURIComponent('
hello world'));
  a.setAttribute('download',fileName);
  a.style.display='none';
  document.body.append(a);
  a.click();
  document.body.removeChild(a);
}
```