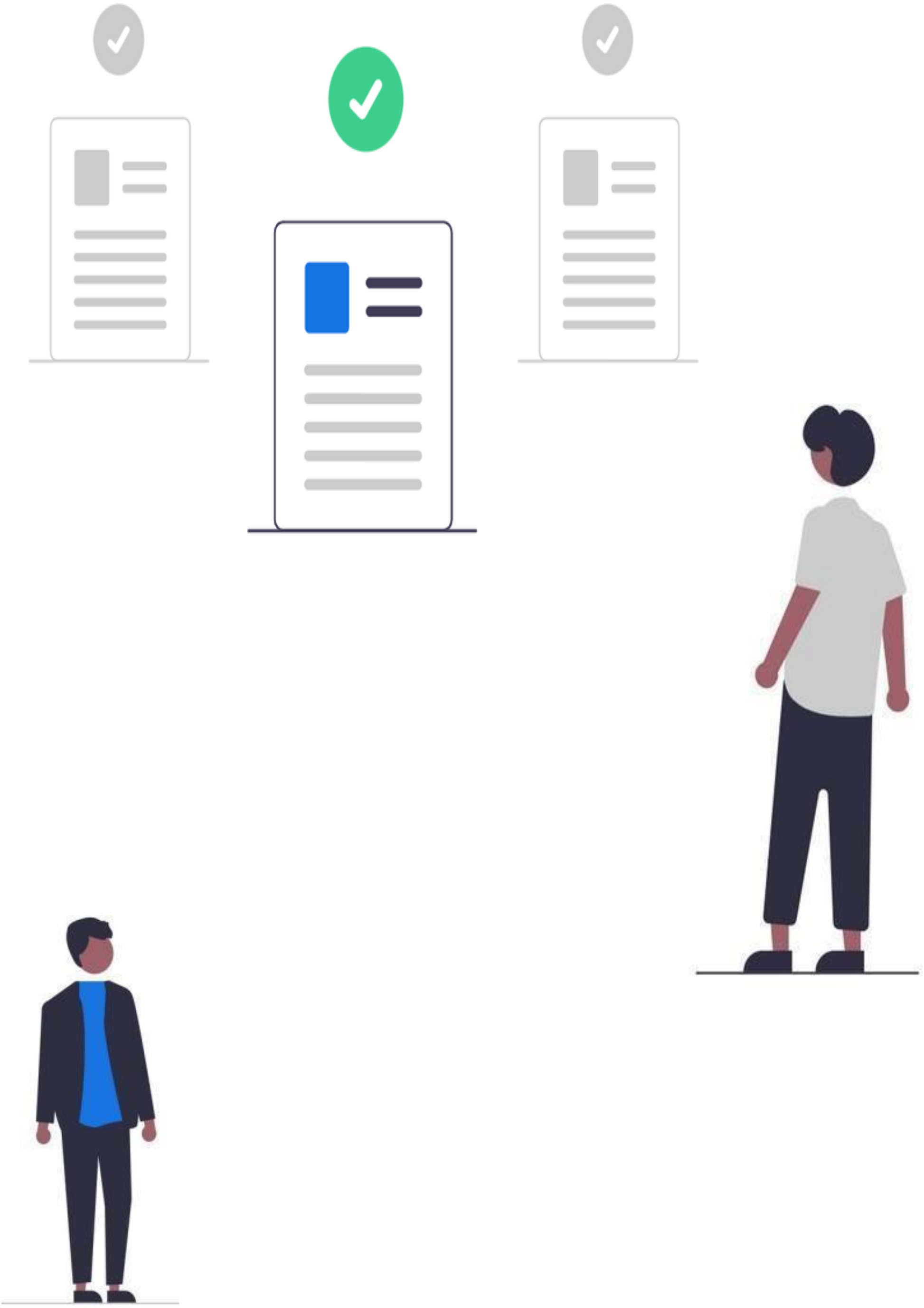
XPATH_QUICK GUIDE



1. XPath Basics
2. XPath Functions
3. XPath Axes

XPath Basic

XPath SyntaxSelecting Nodes

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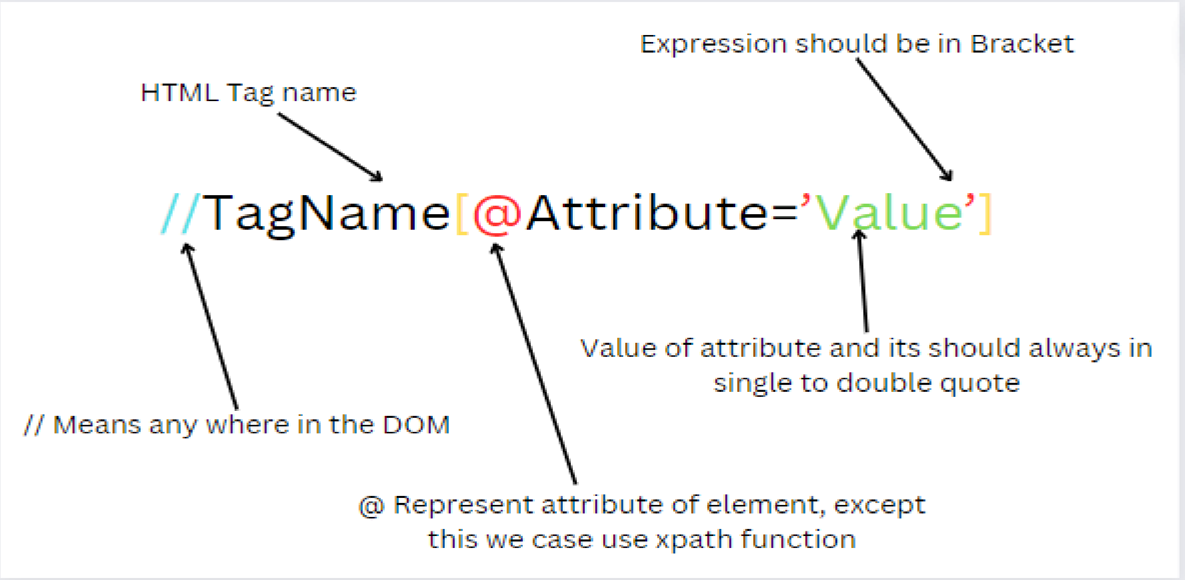
Nested locators

XPath Syntax


Expression should be in Bracket
HTML Tag name
//TagName[@Attribute='Value']
Value of attribute and its should always in single to double quote
// Means any where in the DOM
@ Represent attribute of element, except this we case use xpath function

Absolute and relative XPath

Absolute XPath

The path from root element to targeted element without missing any elements in between.

Absolute XPath starts form by using ‘/’ (single forward slash) and ‘[index]’ (square bracket with index).

/html/body/div[2]/div/div[1]/form/input[2]

Relative XPath

This XPath is specific to the target element. It uses expression to locate web element(s) in HTML documents.

It uses “//” (double forward slash) and “/” along with other symbols, functions, and axes names.

//*[@id="file-submit"]

Selecting Nodes

1	Node name	Selects all nodes with the name "node name"
2	/	Selects from the root node.
3	//	Select direct from given node
4	.	Selects the current node
5	..	Selects the parent of the current node
6	@	Selects attributes

Selecting Unknown Nodes

1	*	Matches any element node
2	@*	Matches attribute node

Selecting Several Paths

By using the | operator in an XPath expression we can select several paths.

Parents and Children

//Tag[@condition]/.. # Parent

//Tag[@condition]/Tag[condition] # Child

//Tag[@condition]/Tag[condition] # Search with in child)

Index Nested locators

//Tag[@condition][index] // nth child of its parent

(//Tag[@condition])[index] // nth locator of this locator

//Tag[tag[@condition]] // nested locator

//Tag[.//tag[@condition]] // nested locator

XPath Functions

contains()

starts-with()

position()

last()

count()

normalize-space()

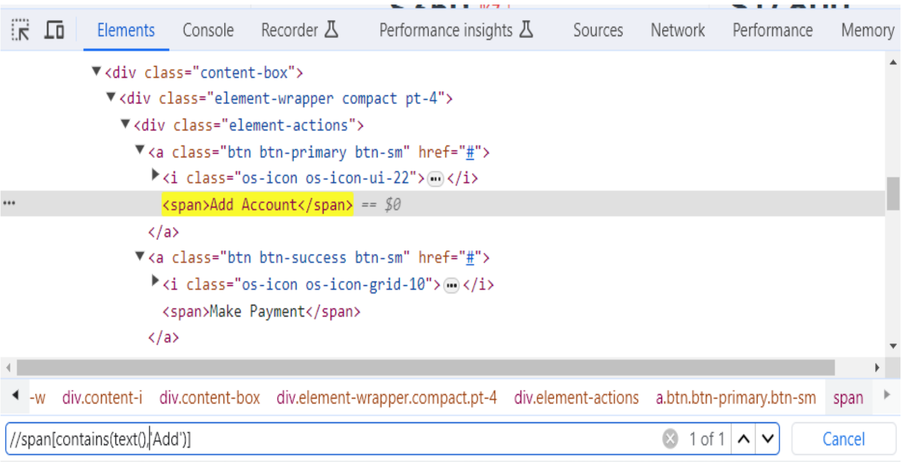
translate()

floor()

not()

string-length()

contains()

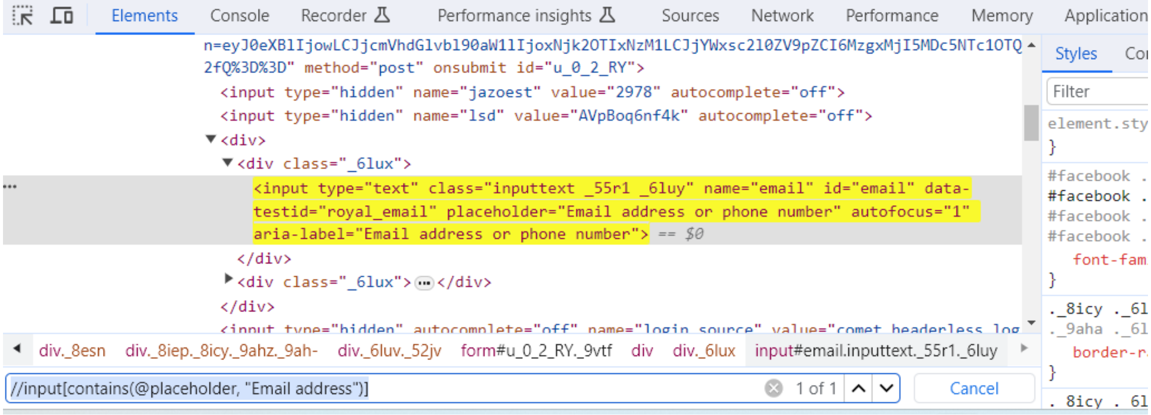


```
▼<div class="content-box">
  ▼<div class="element-wrapper compact pt-4">
    ▼<div class="element-actions">
      ▼<a class="btn btn-primary btn-sm" href="#">
        ▶<i class="os-icon os-icon-ui-22">…</i>
        <span>Add Account</span> == $0
      </a>
      ▼<a class="btn btn-success btn-sm" href="#">
        ▶<i class="os-icon os-icon-grid-10">…</i>
        <span>Make Payment</span>
      </a>
```

-w div.content-i div.content-box div.element-wrapper.compact.pt-4 div.element-actions a.btn.btn-primary.btn-sm span

//span[contains(text(),'Add')] 1 of 1 Cancel

//span[contains(text(),'Add')]



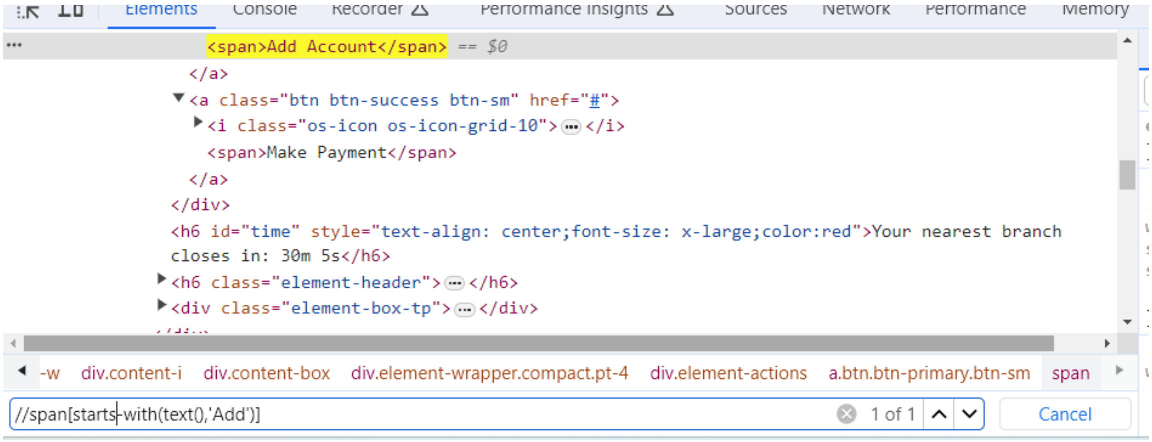
```
n=eyJ0eXBlIjowLCJjcmVhdGlvbl90aW1lIjoxNjk2OTIxNzM1LCJjYWxsc2l0ZV9pZCI6MzgxMjI5MDc5NTc1OTQ
2fQ%3D%3D" method="post" onsubmit id="u_0_2_RY">
  <input type="hidden" name="jazoest" value="2978" autocomplete="off">
  <input type="hidden" name="lsd" value="AVpBoq6nf4k" autocomplete="off">
  ▼<div>
    ▼<div class="_6lux">
        <input type="text" class="inputtext _55r1 _6luy" name="email" id="email" data-
        testid="royal_email" placeholder="Email address or phone number" autofocus="1"
        aria-label="Email address or phone number"> == $0
     </div>
    ▶<div class="_6lux">…</div>
  </div>
  <input type="hidden" autocomplete="off" name="login_source" value="comet_headerless_log
```

div._8esn div._8iep._8icy._9ahz._9ah- div._6luv._52jv form#u_0_2_RY._9vtf div div._6lux input#email.inputtext._55r1._6luy

//input[contains(@placeholder, "Email address")] 1 of 1 Cancel

//input[contains(@placeholder, "Email address")]

starts-with()

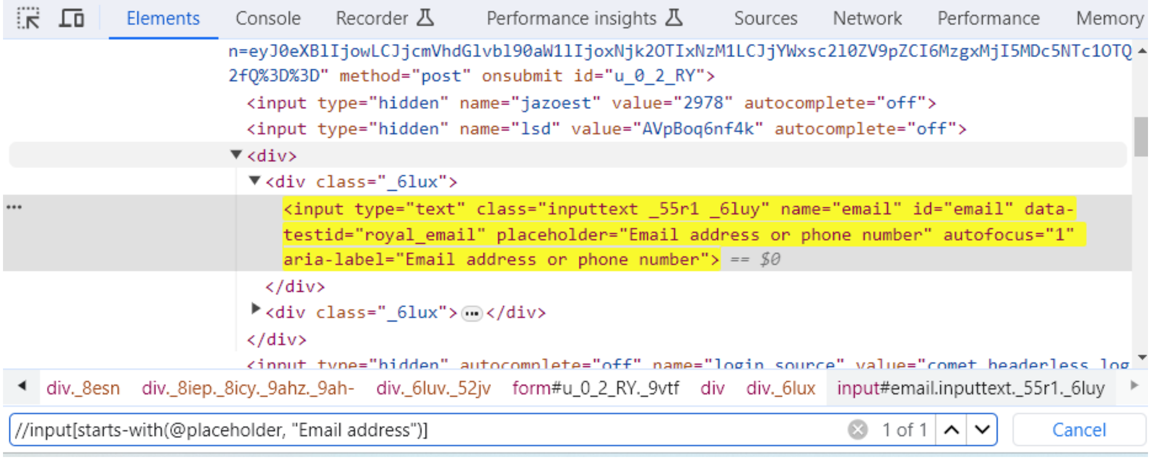


```
          <span>Add Account</span> == $0
        </a>
      ▼<a class="btn btn-success btn-sm" href="#">
        ▶<i class="os-icon os-icon-grid-10">…</i>
          <span>Make Payment</span>
        </a>
      </div>
      <h6 id="time" style="text-align: center;font-size: x-large;color:red">Your nearest branch
      closes in: 30m 5s</h6>
    ▶<h6 class="element-header">…</h6>
    ▶<div class="element-box-tp">…</div>
```

-w div.content-i div.content-box div.element-wrapper.compact.pt-4 div.element-actions a.btn.btn-primary.btn-sm span

//span[starts-with(text(),'Add')] 1 of 1 Cancel

//span[starts-with(text(),'Add')]



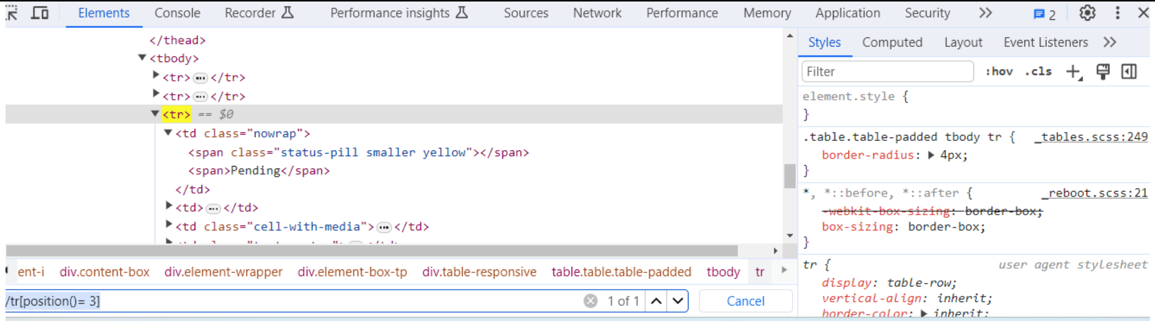
```
n=eyJ0eXBlIjowLCJjcmVhdGlvbl90aW1lIjoxNjk2OTIxNzM1LCJjYWxsc2l0ZV9pZCI6MzgxMjI5MDc5NTc1OTQ
2fQ%3D%3D" method="post" onsubmit id="u_0_2_RY">
  <input type="hidden" name="jazoest" value="2978" autocomplete="off">
  <input type="hidden" name="lsd" value="AVpBoq6nf4k" autocomplete="off">
  ▼<div>
    ▼<div class="_6lux">
        <input type="text" class="inputtext _55r1 _6luy" name="email" id="email" data-
        testid="royal_email" placeholder="Email address or phone number" autofocus="1"
        aria-label="Email address or phone number"> == $0
     </div>
    ▶<div class="_6lux">…</div>
  </div>
  <input type="hidden" autocomplete="off" name="login_source" value="comet_headerless_log
```

div._8esn div._8iep._8icy._9ahz._9ah- div._6luv._52jv form#u_0_2_RY._9vtf div div._6lux input#email.inputtext._55r1._6luy

//input[starts-with(@placeholder, "Email address")] 1 of 1 Cancel

//input[starts-with(@placeholder, "Email address")]

position()



```
</thead>
▼<tbody>
  ▶<tr>⋯</tr>
  ▶<tr>⋯</tr>
  ▼<tr> == $0
    ▼<td class="nowrap">
        <span class="status-pill smaller yellow"></span>
        <span>Pending</span>
      </td>
    ▶<td>⋯</td>
    ▶<td class="cell-with-media">⋯</td>
```

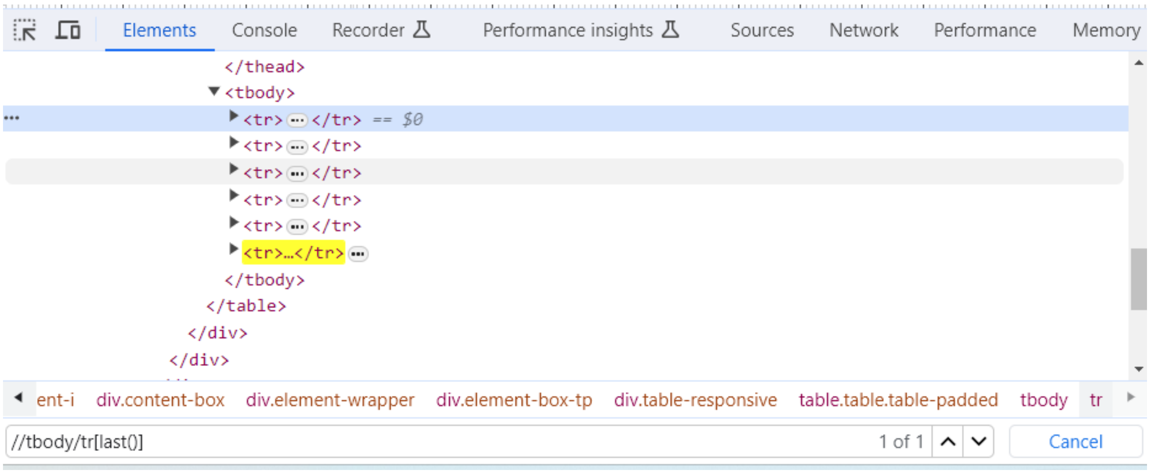
ent-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr

/tr[position()= 3]

```
element.style {
}
.table.table-padded tbody tr {      _tables.scss:249
  border-radius: ▶ 4px;
}
*, *::before, *::after {            _reboot.scss:21
  ~~-webkit-box-sizing: border-box;~~
  box-sizing: border-box;
}
tr {                        user agent stylesheet
  display: table-row;
  vertical-align: inherit;
  border-color: ▶ inherit;
```

//tr[position()= 3]

last()



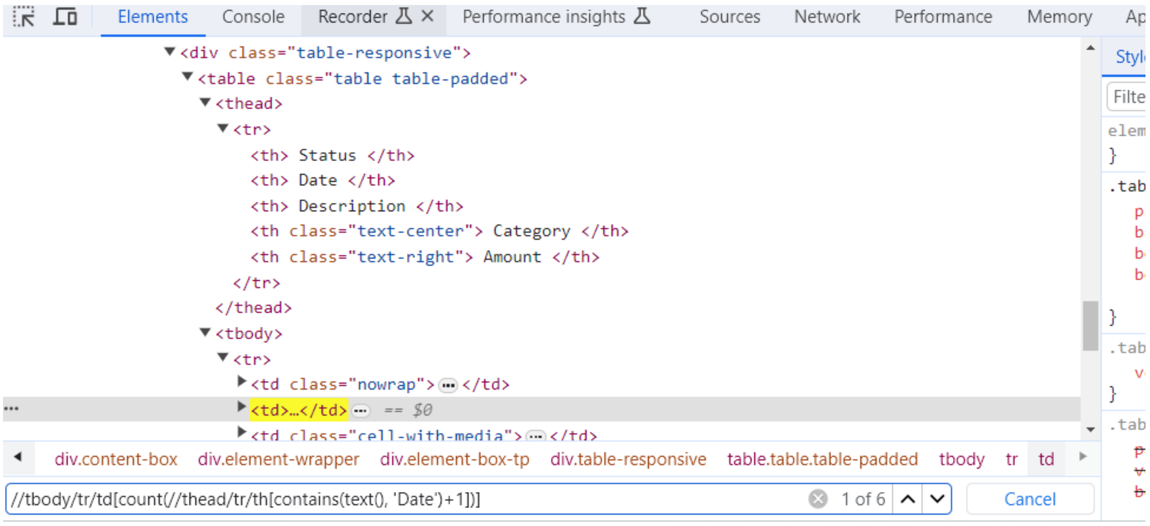
```
</thead>
▼<tbody>
  ▶<tr>⋯</tr> == $0
  ▶<tr>⋯</tr>
  ▶<tr>⋯</tr>
  ▶<tr>⋯</tr>
  ▶<tr>⋯</tr>
  ▶<tr>…</tr>⋯
</tbody>
</table>
</div>
</div>
```

ent-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr

//tbody/tr[last()]

//tbody/tr[last()]

count()



```
▼<div class="table-responsive">
  ▼<table class="table table-padded">
    ▼<thead>
      ▼<tr>
          <th> Status </th>
          <th> Date </th>
          <th> Description </th>
          <th class="text-center"> Category </th>
          <th class="text-right"> Amount </th>
        </tr>
      </thead>
    ▼<tbody>
      ▼<tr>
        ▶<td class="nowrap">⋯</td>
        ▶<td>…</td>⋯ == $0
        ▶<td class="cell-with-media">⋯</td>
```

div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr td

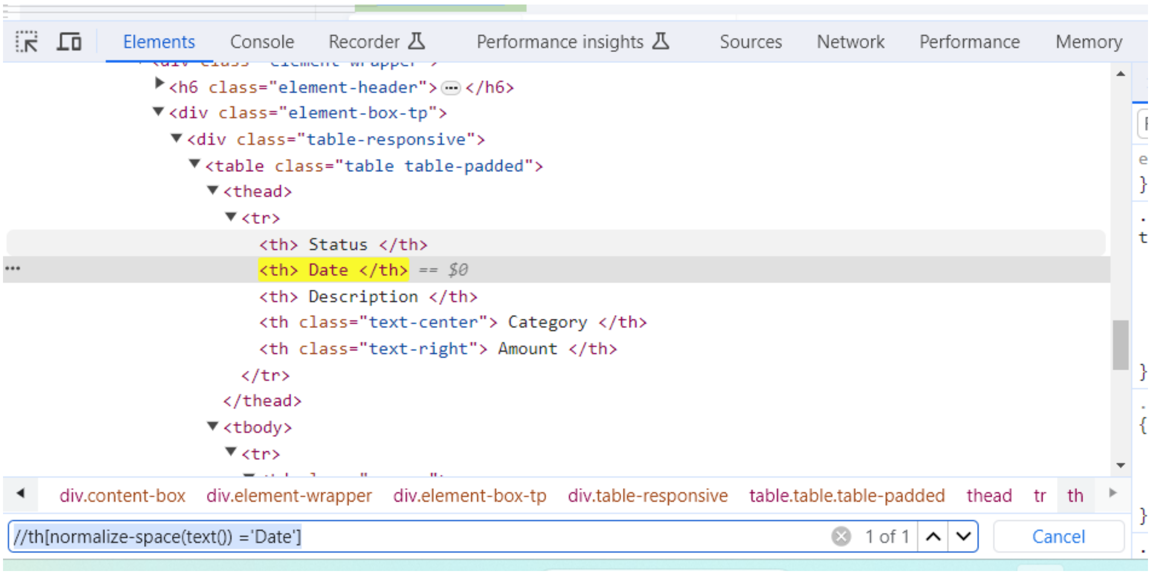
//tbody/tr/td[count(//thead/tr/th[contains(text(), 'Date')]+1)]

//tbody/tr/td[count(//thead/tr/th[contains(text(), 'Date')+1])]

normalize-space()

If an element has spaces in its text or in the value of any attribute, then to create an XPath for such an element we have to use the normalize-space function. It removes all the trailing and leading spaces from the string. It also removes every new tab or line existing within the string.

//th[normalize-space(text()) ='Date']

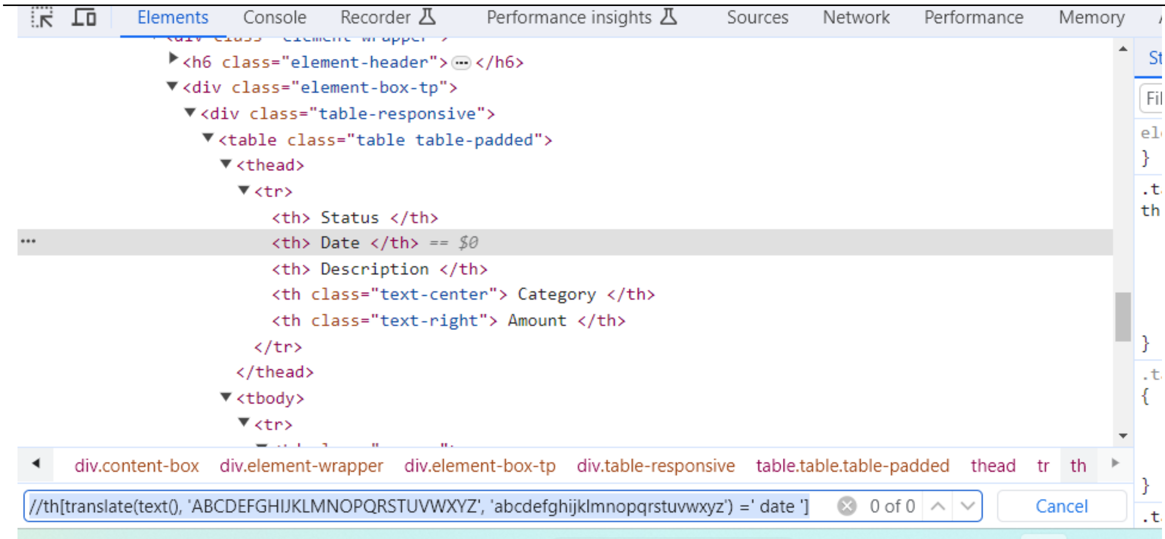


```
  ▶<h6 class="element-header">⋯</h6>
  ▼<div class="element-box-tp">
    ▼<div class="table-responsive">
      ▼<table class="table table-padded">
        ▼<thead>
          ▼<tr>
              <th> Status </th>
              <th> Date </th> == $0
              <th> Description </th>
              <th class="text-center"> Category </th>
              <th class="text-right"> Amount </th>
            </tr>
          </thead>
        ▼<tbody>
          ▼<tr>
```

//th[normalize-space(text()) ='Date']

translate()

//th[translate(text(), 'ABCDEFGHIJKLMNOPQRSTUVWXYZ', 'abcdefghijklmnopqrstuvwxyz') =' date ']



```
▶<h6 class="element-header">⋯</h6>
▼<div class="element-box-tp">
  ▼<div class="table-responsive">
    ▼<table class="table table-padded">
      ▼<thead>
        ▼<tr>
            <th> Status </th>
            <th> Date </th> == $0
            <th> Description </th>
            <th class="text-center"> Category </th>
            <th class="text-right"> Amount </th>
          </tr>
        </thead>
      ▼<tbody>
        ▼<tr>
```

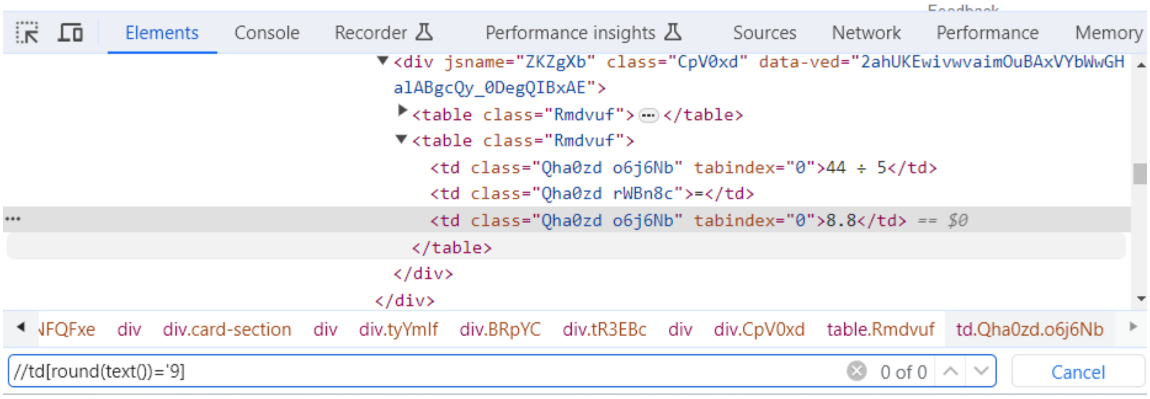
div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded thead tr th

//th[translate(text(), 'ABCDEFGHIJKLMNOPQRSTUVWXYZ', 'abcdefghijklmnopqrstuvwxyz') =' date '] 0 of 0 Cancel

//th[normalize-space(translate(text(), 'ABCDEFGHIJKLMNOPQRSTUVWXYZ', 'abcdefghijklmnopqrstuvwxyz')) ='date']

round()

//td[round(text())='9']



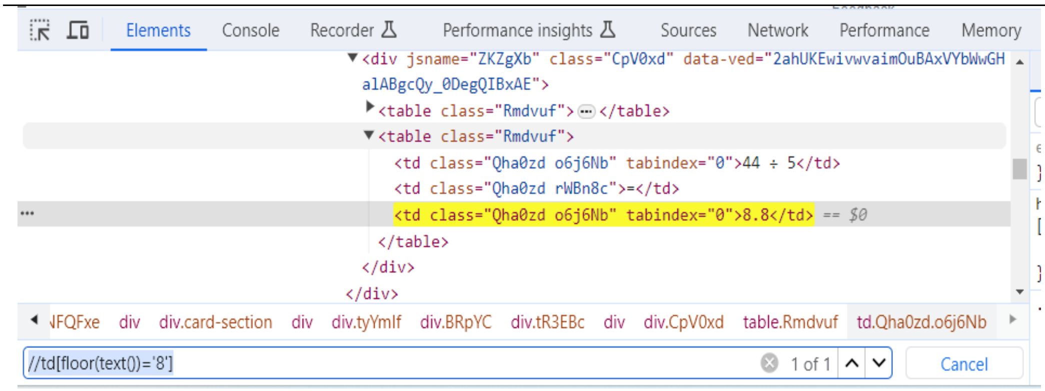
```
▼<div jsname="ZKZgXb" class="CpV0xd" data-ved="2ahUKEwivwvaimOuBAxVYbWwGH
 alABgcQy_0DegQIBxAE">
  ▶<table class="Rmdvuf">⋯</table>
  ▼<table class="Rmdvuf">
      <td class="Qha0zd o6j6Nb" tabindex="0">44 ÷ 5</td>
      <td class="Qha0zd rWBn8c">=</td>
      <td class="Qha0zd o6j6Nb" tabindex="0">8.8</td> == $0
    </table>
  </div>
</div>
```

NFQFxe div div.card-section div div.tyYmlf div.BRpYC div.tR3EBc div div.CpV0xd table.Rmdvuf td.Qha0zd.o6j6Nb

//td[round(text())='9'] 0 of 0 Cancel

floor()

//td[floor(text())='8']

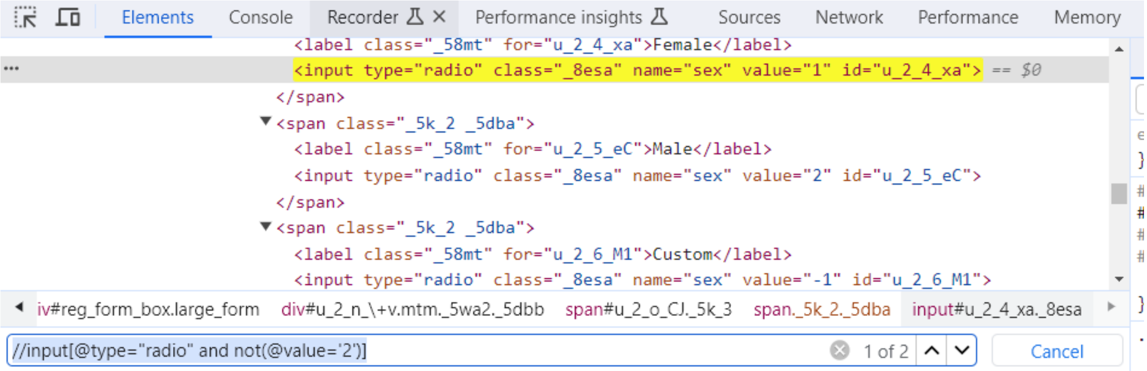


```
▼<div jsname="ZKZgXb" class="CpV0xd" data-ved="2ahUKEwivwvaimOuBAxVYbWwGH
alABgcQy_0DegQIBxAE">
  ▶<table class="Rmdvuf">…</table>
  ▼<table class="Rmdvuf">
      <td class="Qha0zd o6j6Nb" tabindex="0">44 ÷ 5</td>
      <td class="Qha0zd rWBn8c">=</td>
      <td class="Qha0zd o6j6Nb" tabindex="0">8.8</td> == $0
    </table>
  </div>
</div>
```

NFQFxe div div.card-section div div.tyYmlf div.BRpYC div.tR3EBc div div.CpV0xd table.Rmdvuf td.Qha0zd.o6j6Nb

```
//td[floor(text())='8']                1 of 1
```

not()   //input[@type="radio" and not(@value='2’)]



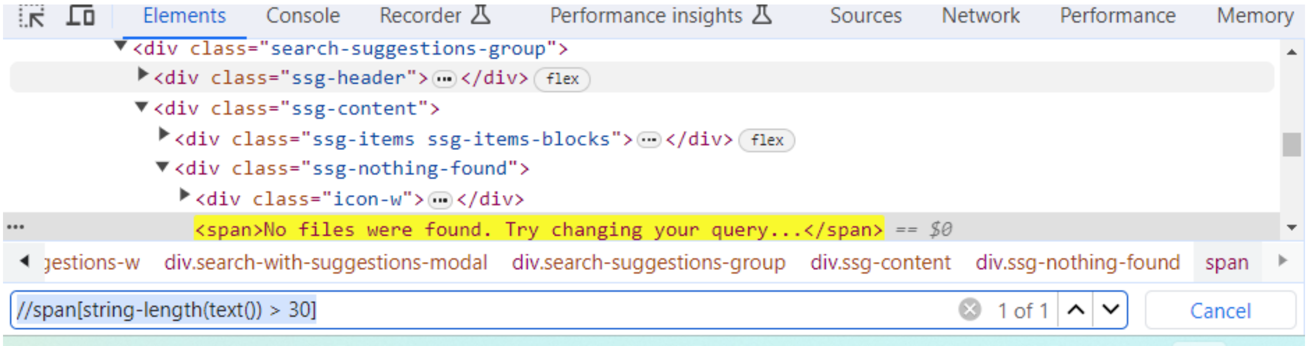
```
    <label class="_58mt" for="u_2_4_xa">Female</label>
    <input type="radio" class="_8esa" name="sex" value="1" id="u_2_4_xa"> == $0
  </span>
▼<span class="_5k_2 _5dba">
    <label class="_58mt" for="u_2_5_eC">Male</label>
    <input type="radio" class="_8esa" name="sex" value="2" id="u_2_5_eC">
  </span>
▼<span class="_5k_2 _5dba">
    <label class="_58mt" for="u_2_6_M1">Custom</label>
    <input type="radio" class="_8esa" name="sex" value="-1" id="u_2_6_M1">
```

iv#reg_form_box.large_form div#u_2_n_\+v.mtm._5wa2._5dbb span#u_2_o_CJ._5k_3 span._5k_2._5dba input#u_2_4_xa._8esa

```
//input[@type="radio" and not(@value='2')]                1 of 2
```

string-length()

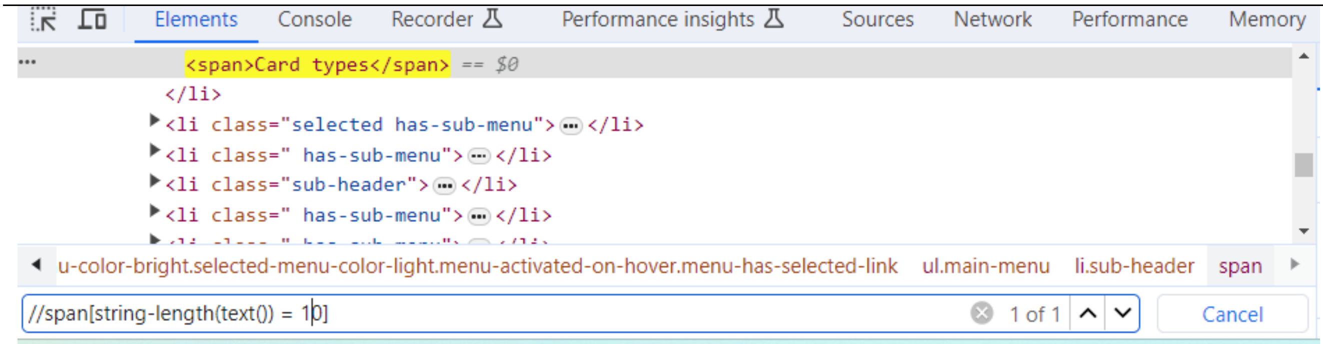
//span[string-length(text()) = 10]
//span[string-length(text()) > 30]
//span[string-length(text()) < 4]



```
▼<div class="search-suggestions-group">
  ▶<div class="ssg-header">…</div> flex
  ▼<div class="ssg-content">
    ▶<div class="ssg-items ssg-items-blocks">…</div> flex
    ▼<div class="ssg-nothing-found">
      ▶<div class="icon-w">…</div>
        <span>No files were found. Try changing your query...</span> == $0
```

gestions-w div.search-with-suggestions-modal div.search-suggestions-group div.ssg-content div.ssg-nothing-found span

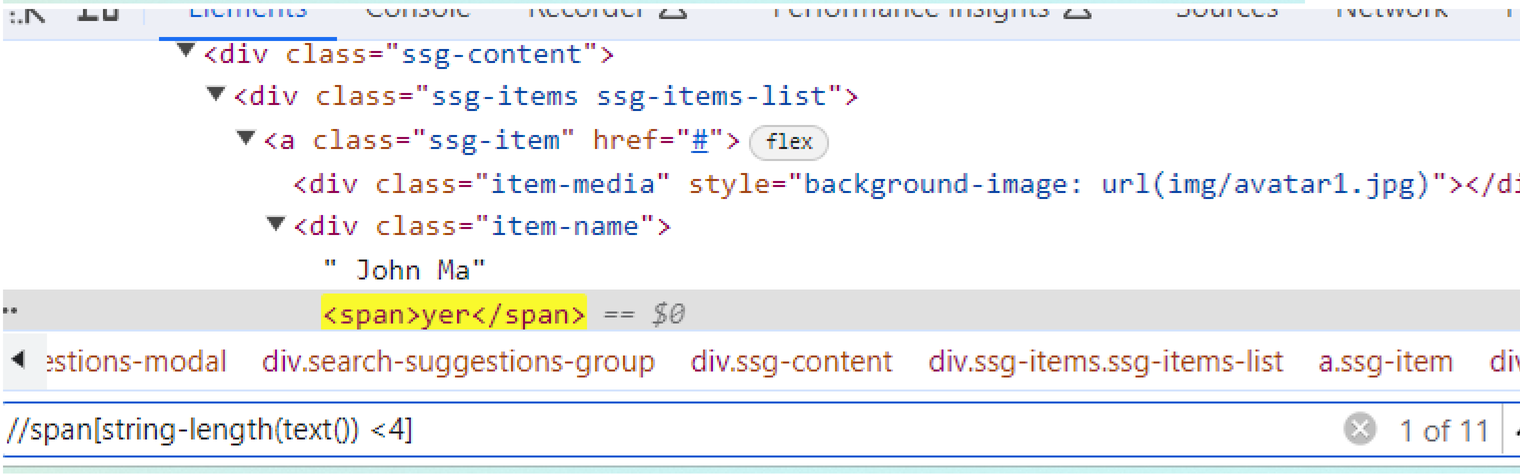
```
//span[string-length(text()) > 30]                1 of 1
```



```
            <span>Card types</span> == $0
          </li>
        ▶<li class="selected has-sub-menu">…</li>
        ▶<li class=" has-sub-menu">…</li>
        ▶<li class="sub-header">…</li>
        ▶<li class=" has-sub-menu">…</li>
```

u-color-bright.selected-menu-color-light.menu-activated-on-hover.menu-has-selected-link   ul.main-menu   li.sub-header   span

```
//span[string-length(text()) = 10]        1 of 1
```



```
▼<div class="ssg-content">
  ▼<div class="ssg-items ssg-items-list">
    ▼<a class="ssg-item" href="#"> flex
       <div class="item-media" style="background-image: url(img/avatar1.jpg)"></di
      ▼<div class="item-name">
          " John Ma"
          <span>yer</span> == $0
```

estions-modal   div.search-suggestions-group   div.ssg-content   div.ssg-items.ssg-items-list   a.ssg-item   di

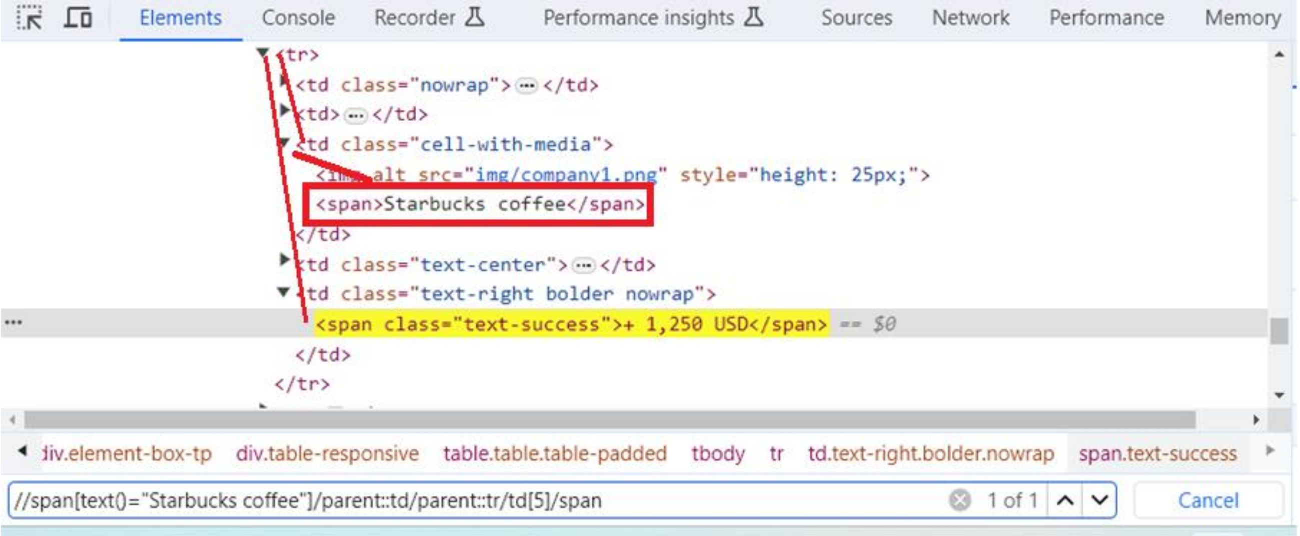
```
//span[string-length(text()) <4]        1 of 11
```

XPath Axes

- ➢ parent
- ➢ child
- ➢ ancestor
- ➢ ancestor-or-self
- ➢ descendent
- ➢ descendent-or-self
- ➢ following
- ➢ following-sibling
- ➢ preceding
- ➢ preceding-sibling

parent

//span[text()="Starbucks coffee"]/parent::td/parent::tr/td[5]/span



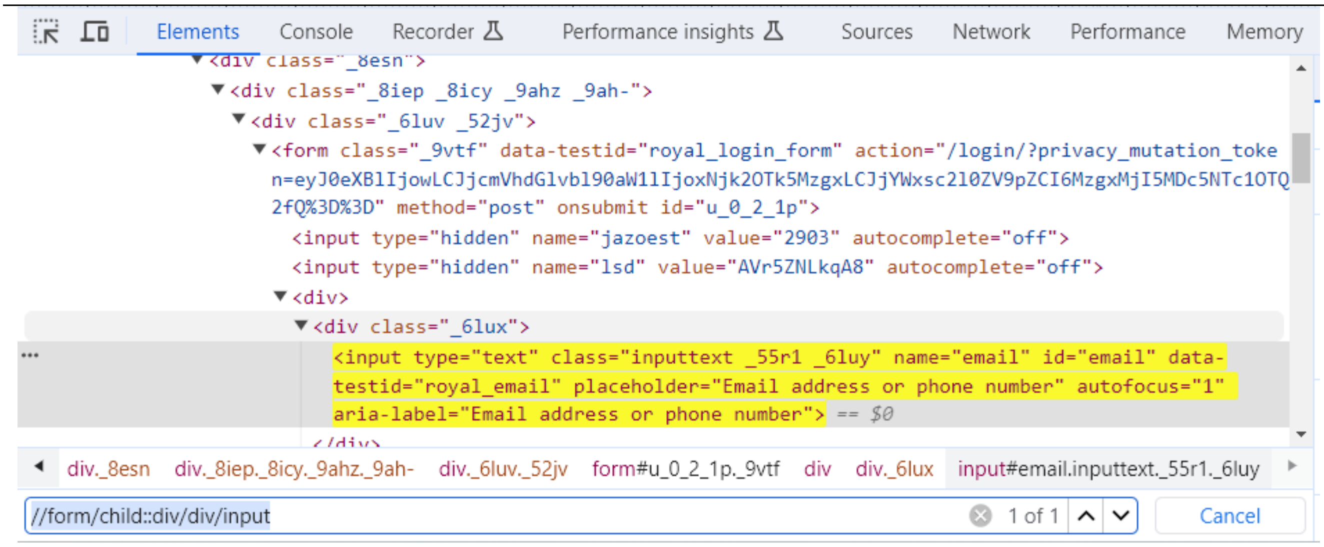
```
▼<tr>
  ▶<td class="nowrap">⋯</td>
  ▶<td>⋯</td>
  ▼<td class="cell-with-media">
     <img alt src="img/company1.png" style="height: 25px;">
     <span>Starbucks coffee</span>
   </td>
  ▶<td class="text-center">⋯</td>
  ▼<td class="text-right bolder nowrap">
     <span class="text-success">+ 1,250 USD</span> == $0
   </td>
 </tr>
```

div.element-box-tp div.table-responsive table.table.table-padded tbody tr td.text-right.bolder.nowrap span.text-success

//span[text()="Starbucks coffee"]/parent::td/parent::tr/td[5]/span   1 of 1   Cancel

child

//form/child::div/div/input



```
▼<div class="_8esn">
  ▼<div class="_8iep _8icy _9ahz _9ah-">
    ▼<div class="_6luv _52jv">
      ▼<form class="_9vtf" data-testid="royal_login_form" action="/login/?privacy_mutation_toke
       n=eyJ0eXBlIjowLCJjcmVhdGlvbl90aW1lIjoxNjk2OTk5MzgxLCJjYWxsc2l0ZV9pZCI6MzgxMjI5MDc5NTc1OTQ
       2fQ%3D%3D" method="post" onsubmit id="u_0_2_1p">
         <input type="hidden" name="jazoest" value="2903" autocomplete="off">
         <input type="hidden" name="lsd" value="AVr5ZNLkqA8" autocomplete="off">
       ▼<div>
         ▼<div class="_6lux">
...          <input type="text" class="inputtext _55r1 _6luy" name="email" id="email" data-
             testid="royal_email" placeholder="Email address or phone number" autofocus="1"
             aria-label="Email address or phone number"> == $0
           </div>
```

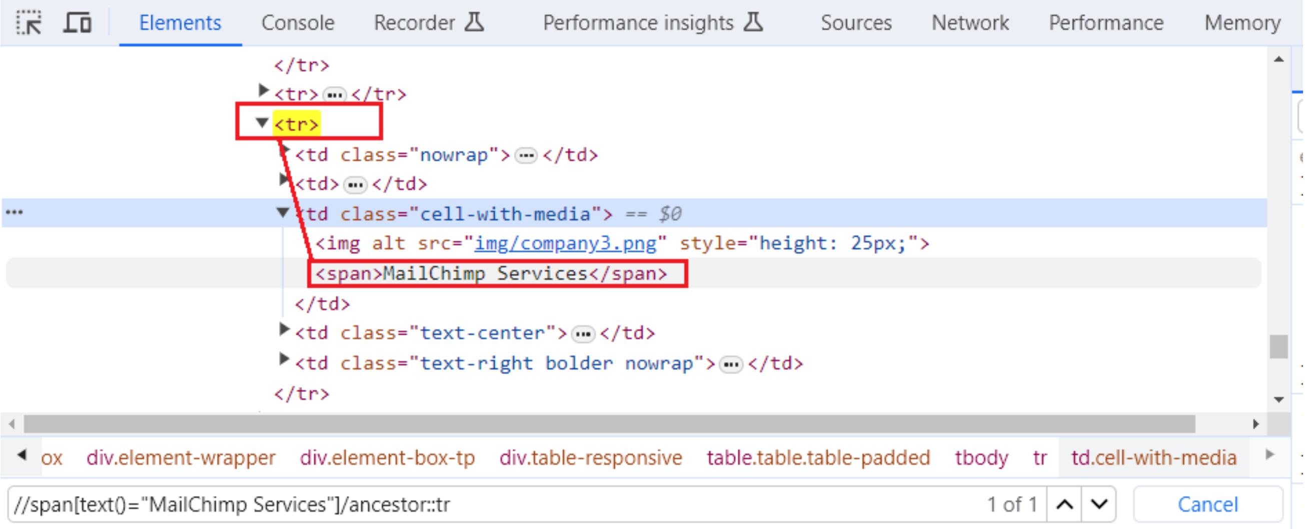
div._8esn   div._8iep._8icy._9ahz._9ah-   div._6luv._52jv   form#u_0_2_1p._9vtf   div   div._6lux   input#email.inputtext._55r1._6luy

//form/child::div/div/input   1 of 1   Cancel

Ancestor Used to find the ancestor of a specific member at the specified layer

//span[text()="MailChimp Services"]/ancestor::table

//span[text()="MailChimp Services"]/ancestor::tr
used to find the ancestor of a specific member at the specified layer



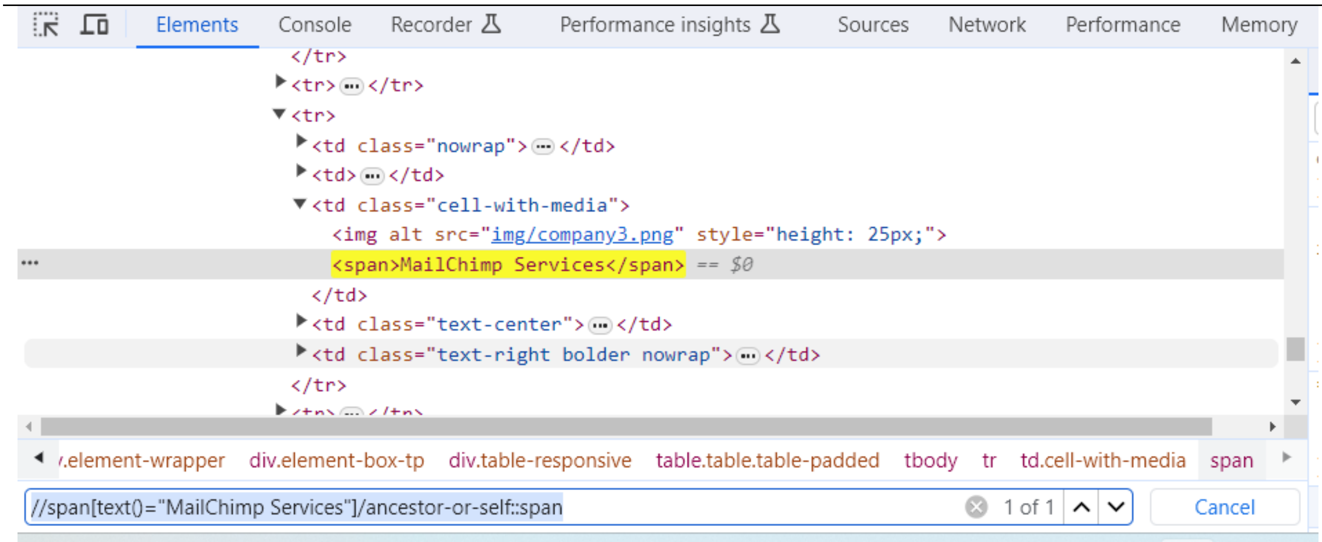
```
     </tr>
    ▶<tr>…</tr>
    ▼<tr>
      ▶<td class="nowrap">…</td>
      ▶<td>…</td>
...   ▼<td class="cell-with-media"> == $0
         <img alt src="img/company3.png" style="height: 25px;">
         <span>MailChimp Services</span>
       </td>
      ▶<td class="text-center">…</td>
      ▶<td class="text-right bolder nowrap">…</td>
     </tr>
```

ox   div.element-wrapper   div.element-box-tp   div.table-responsive   table.table.table-padded   tbody   tr   td.cell-with-media

//span[text()="MailChimp Services"]/ancestor::tr   1 of 1   Cancel

ancestor-or-self

//span[text()="MailChimp Services"]/ancestor-or-self::span
//span[text()="MailChimp Services"]/ancestor-or-self::td



```
</tr>
▶<tr>…</tr>
▼<tr>
  ▶<td class="nowrap">…</td>
  ▶<td>…</td>
  ▼<td class="cell-with-media">
     <img alt src="img/company3.png" style="height: 25px;">
     <span>MailChimp Services</span> == $0
  </td>
  ▶<td class="text-center">…</td>
  ▶<td class="text-right bolder nowrap">…</td>
</tr>
```

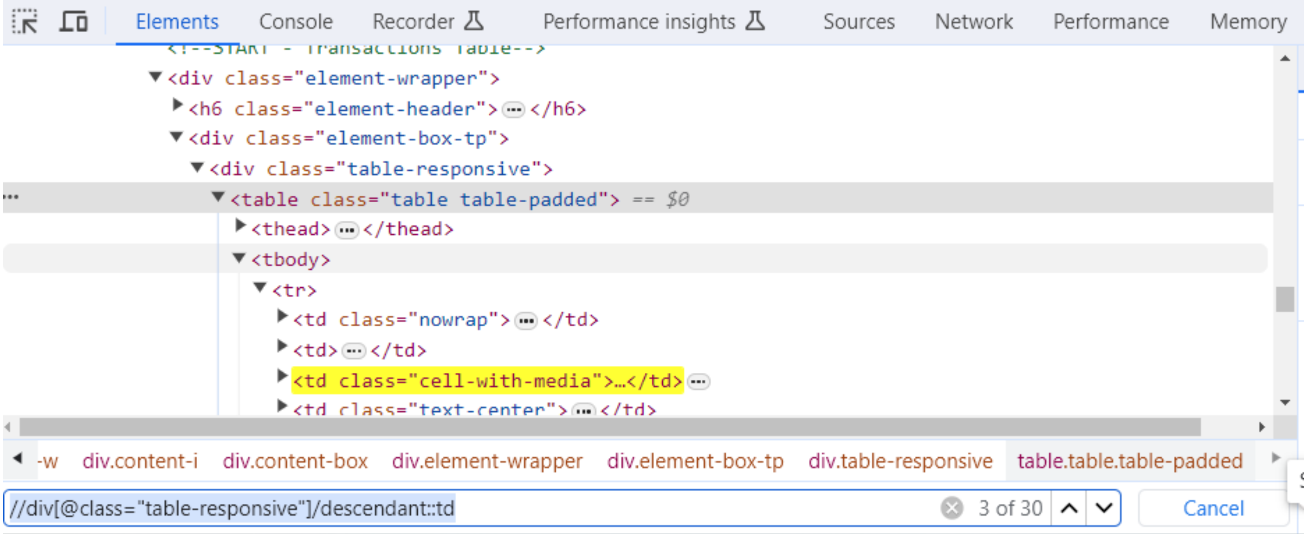
.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr td.cell-with-media span

//span[text()="MailChimp Services"]/ancestor-or-self::span 1 of 1 Cancel

Descendent

This function will return the descendant element of the particular element

//div[@class="table-responsive"]/descendant::tr
//div[@class="table-responsive"]/descendant::td



```
<!--START - Transactions Table-->
▼<div class="element-wrapper">
  ▶<h6 class="element-header">…</h6>
  ▼<div class="element-box-tp">
    ▼<div class="table-responsive">
      ▼<table class="table table-padded"> == $0
        ▶<thead>…</thead>
        ▼<tbody>
          ▼<tr>
            ▶<td class="nowrap">…</td>
            ▶<td>…</td>
            ▶<td class="cell-with-media">…</td>
            ▶<td class="text-center">…</td>
```

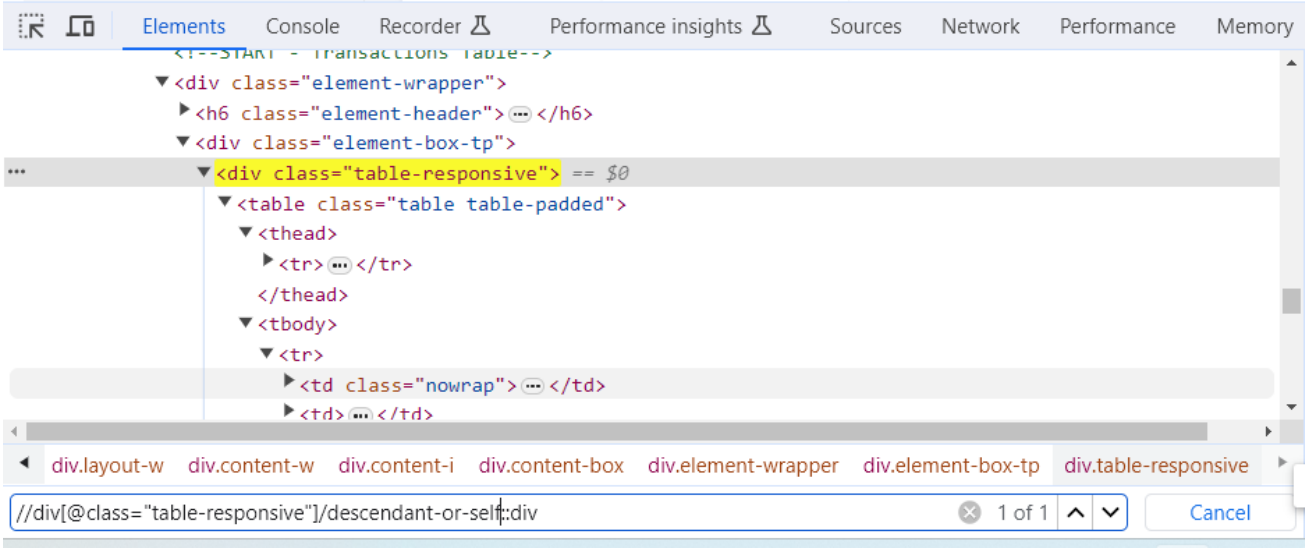
-w div.content-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded

//div[@class="table-responsive"]/descendant::td 3 of 30 Cancel

descendent-or-self

//div[@class="table-responsive"]/descendant-or-self::div

//div[@class="table-responsive"]/descendant-or-self::td



```
<!--START - Transactions Table-->
▼<div class="element-wrapper">
  ▶<h6 class="element-header">…</h6>
  ▼<div class="element-box-tp">
    ▼<div class="table-responsive"> == $0
      ▼<table class="table table-padded">
        ▼<thead>
          ▶<tr>…</tr>
         </thead>
        ▼<tbody>
          ▼<tr>
            ▶<td class="nowrap">…</td>
            ▶<td>…</td>
```

div.layout-w div.content-w div.content-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive

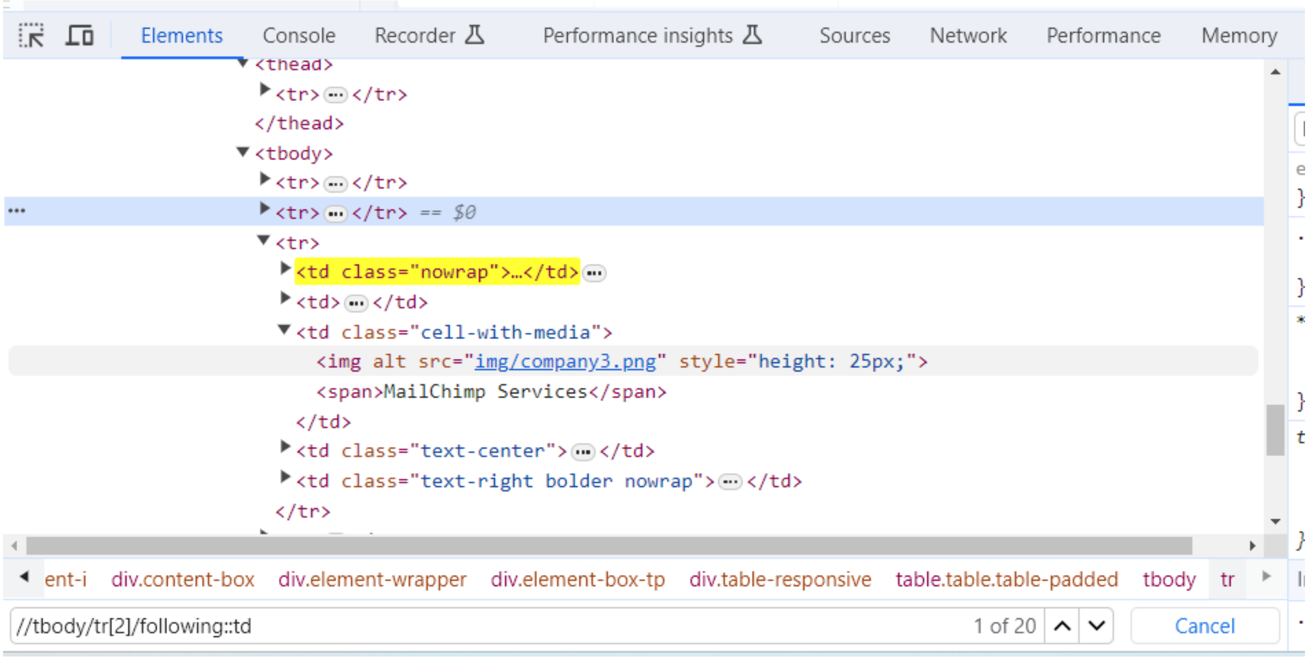
//div[@class="table-responsive"]/descendant-or-self::div 1 of 1 Cancel

following

This function will return the immediate element of the particular component

//tbody/tr[2]/following::tr

//tbody/tr[2]/following::td



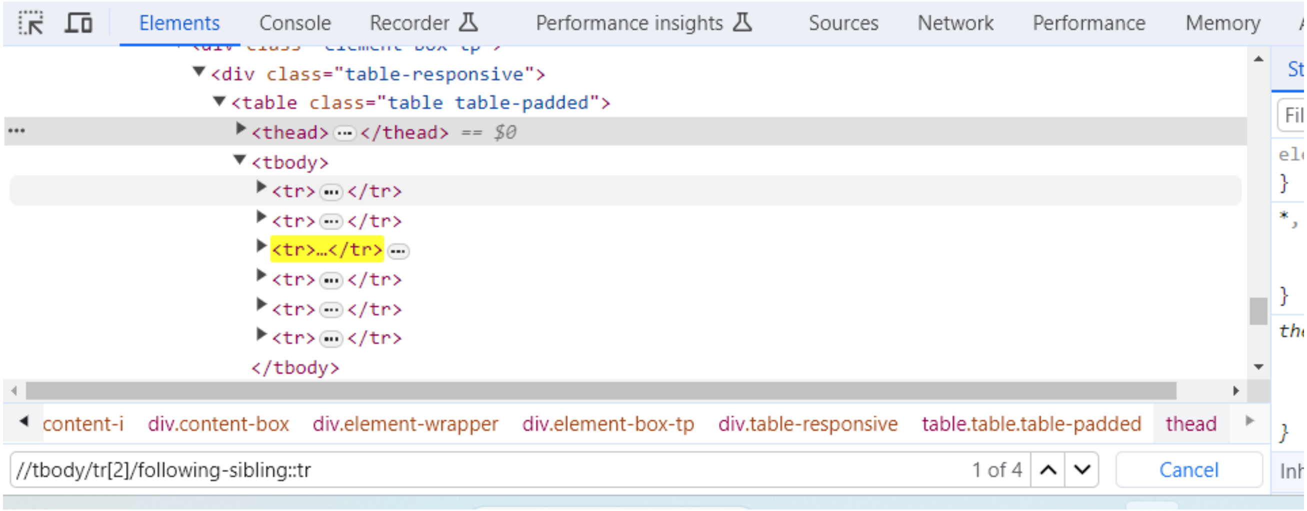
```
▼<thead>
  ▶<tr>…</tr>
 </thead>
▼<tbody>
  ▶<tr>…</tr>
  ▶<tr>…</tr> == $0
  ▼<tr>
    ▶<td class="nowrap">…</td>…
    ▶<td>…</td>
    ▼<td class="cell-with-media">
       <img alt src="img/company3.png" style="height: 25px;">
       <span>MailChimp Services</span>
     </td>
    ▶<td class="text-center">…</td>
    ▶<td class="text-right bolder nowrap">…</td>
   </tr>
```

ent-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr

//tbody/tr[2]/following::td 1 of 20 Cancel

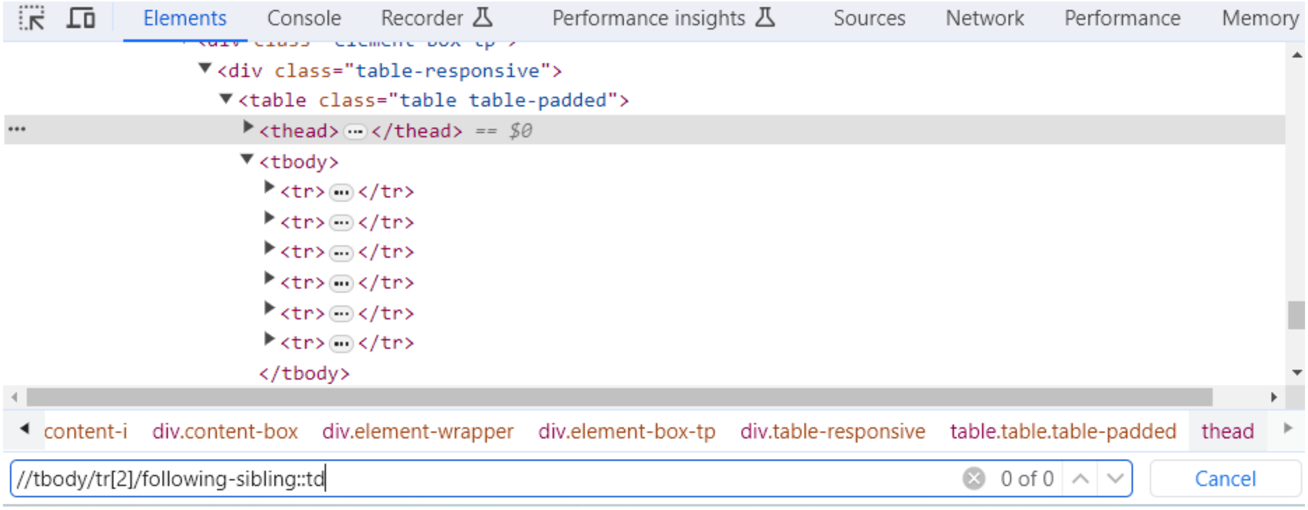
following-sibling

//tbody/tr[2]/following-sibling::tr



```
▼<div class="table-responsive">
  ▼<table class="table table-padded">
    ▶<thead> ··· </thead> == $0
    ▼<tbody>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
      ▶<tr>…</tr> ···
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
     </tbody>
```

//tbody/tr[2]/following-sibling::tr 1 of 4 Cancel

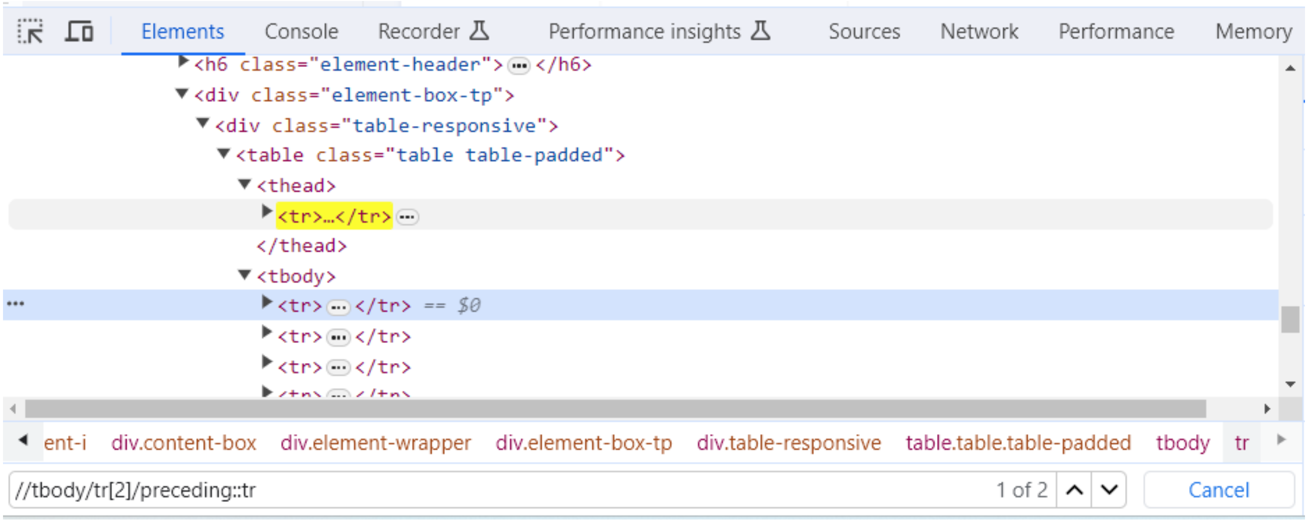


```
▼<div class="table-responsive">
  ▼<table class="table table-padded">
    ▶<thead> ··· </thead> == $0
    ▼<tbody>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
      ▶<tr> ··· </tr>
     </tbody>
```

//tbody/tr[2]/following-sibling::td 0 of 0 Cancel

Preceding

This function will return the preceding element of the particular element

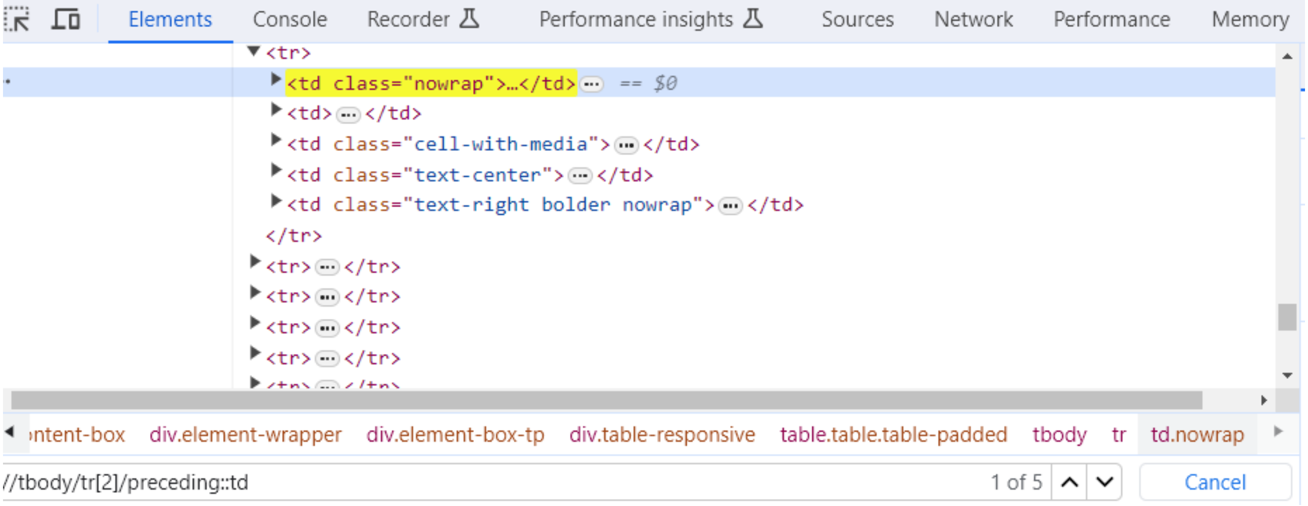


```
▸<h6 class="element-header">…</h6>
▾<div class="element-box-tp">
  ▾<div class="table-responsive">
    ▾<table class="table table-padded">
      ▾<thead>
        ▸<tr>…</tr>
       </thead>
      ▾<tbody>
        ▸<tr>…</tr> == $0
        ▸<tr>…</tr>
        ▸<tr>…</tr>
```

Elements
Console
Recorder
Performance insights
Sources
Network
Performance
Memory
ent-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr
1 of 2
Cancel

//tbody/tr[2]/preceding::tr

//tbody/tr[2]/preceding::tr



```
▾<tr>
  ▸<td class="nowrap">…</td> == $0
  ▸<td>…</td>
  ▸<td class="cell-with-media">…</td>
  ▸<td class="text-center">…</td>
  ▸<td class="text-right bolder nowrap">…</td>
 </tr>
▸<tr>…</tr>
▸<tr>…</tr>
▸<tr>…</tr>
▸<tr>…</tr>
```

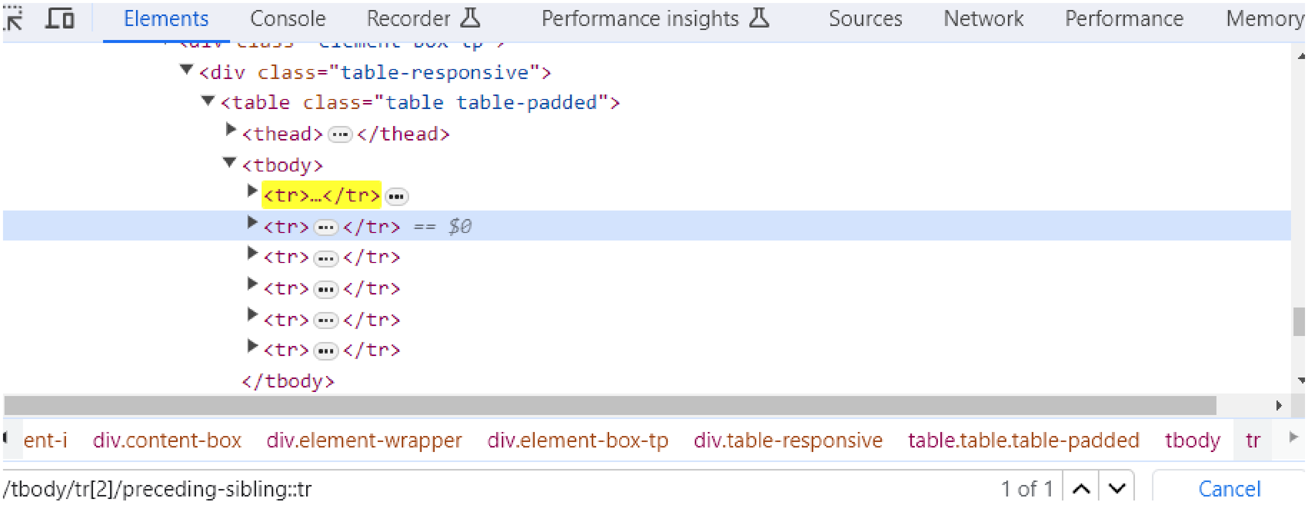
Elements
Console
Recorder
Performance insights
Sources
Network
Performance
Memory
ntent-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr td.nowrap
1 of 5
Cancel

//tbody/tr[2]/preceding::td

//tbody/tr[2]/preceding::td

preceding-sibling

//tbody/tr[2]/preceding-sibling::tr
//tbody/tr[2]/preceding-sibling::td



```
▼<div class="table-responsive">
  ▼<table class="table table-padded">
    ▶<thead> ⋯ </thead>
    ▼<tbody>
      ▶<tr>…</tr> ⋯
      ▶<tr> ⋯ </tr> == $0
      ▶<tr> ⋯ </tr>
      ▶<tr> ⋯ </tr>
      ▶<tr> ⋯ </tr>
      ▶<tr> ⋯ </tr>
     </tbody>
```

ent-i div.content-box div.element-wrapper div.element-box-tp div.table-responsive table.table.table-padded tbody tr

/tbody/tr[2]/preceding-sibling::tr   1 of 1