```
In [3]:
         import requests
         from bs4 import BeautifulSoup as bs
 In [8]:
          r = requests.get("https://keithgalli.github.io/web-scraping/example.html")
         soup = bs(r.content)
         print(soup.prettify())
         <html>
          <head>
           <title>
           HTML Example
           </title>
          </head>
          <body>
           <div align="middle">
            <h1>
            HTML Webpage
            </h1>
            >
            Link to more interesting example:
             <a href="https://keithgalli.github.io/web-scraping/webpage.html">
             keithgalli.github.io/web-scraping/webpage.html
             </a>
            </div>
           <h2>
           A Header
           </h2>
           >
           <i>>
             Some italicized text
           </i>
           <h2>
           Another header
           </h2>
           Some bold text
            </b>
          </body>
         </html>
 In [9]:
         first header = soup.find('h2')
         first header
Out[9]: <h2>A Header</h2>
In [10]:
         headers = soup.find all('h2')
         headers
         [<h2>A Header</h2>, <h2>Another header</h2>]
Out[10]:
In [11]:
         list header = soup.find(['h1','h2'])
         list header
Out[11]: <h1>HTML Webpage</h1>
```

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```
list_header2 = soup.find_all(['h1','h2'])
 In [12]:
           list header2
 Out[12]: [<h1>HTML Webpage</h1>, <h2>A Header</h2>, <h2>Another header</h2>]
 In [13]:
            paragraph = soup.find all('p', attrs={'id':'paragraph-id'})
           paragraph
 Out[13]: [<b>Some bold text</b>]
 In [14]:
           body = soup.find('body')
           body
 Out[14]: <body>
           <div align="middle">
           <h1>HTML Webpage</h1>
           Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/we">https://keithgalli.github.io/web-scraping/we</a>
           bpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
           </div>
           <h2>A Header</h2>
           <i>Some italicized text</i>
           <h2>Another header</h2>
           <b>Some bold text</b>
           </body>
 In [15]:
           div = body.find('div')
           div
 Out[15]: <div align="middle">
           <h1>HTML Webpage</h1>
           Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/we"
           bpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
           </div>
 In [16]:
           dive header = div.find('h1')
           dive header
 Out[16]: <h1>HTML Webpage</h1>
 In [17]:
           print(soup.prettify())
           <html>
            <head>
             <title>
             HTML Example
             </title>
            </head>
            <body>
             <div align="middle">
              <h1>
              HTML Webpage
              </h1>
              >
               Link to more interesting example:
               <a href="https://keithgalli.github.io/web-scraping/webpage.html">
                keithgalli.github.io/web-scraping/webpage.html
               </a>
              </div>
             <h2>
Loading [MathJax]/extensions/Safe.js
```

```
</h2>
            >
             <i>>
              Some italicized text
            <h2>
            Another header
            </h2>
            <b>
              Some bold text
             </b>
            </body>
          </html>
 In [19]:
           soup.find_all('p',string = (some))#or else u can do this
 Out[19]: []
 In [20]:
           import re
           para = soup.find all('p', string = re.compile('some'))
           para
 Out[20]: []
 In [21]:
           header3 = soup.find all('h2', string = re.compile('(h|H)eader'))
           header3
 Out[21]: [<h2>A Header</h2>, <h2>Another header</h2>]
 In [22]:
           c = soup.select('p')
         [Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/w"
 Out[22]:
          ebpage.html">keithgalli.github.io/web-scraping/webpage.html</a>,
           <i>Some italicized text</i>,
           <b>Some bold text</b>]
 In [23]:
           i = soup.select('div p')#only print paragraph inside div
          [Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/w"
 Out[23]:
          ebpage.html">keithgalli.github.io/web-scraping/webpage.html</a>]
 In [24]:
          soup body
           paragraph2 =soup.select('h2 ~p')#p that are directly after h2
           paragraph2
          [<i>Some italicized text</i>,
 Out[24]:
           <b>Some bold text</b>]
 In [25]:
           bold text = soup.select('p#paragraph-id b')
           bold text
Loading [MathJax]/extensions/Safe.js
```

```
Out[25]: [<b>Some bold text</b>]
 In [26]:
           soup.select('title')
          [<title>HTML Example</title>]
 Out[26]:
 In [27]:
            para2 = soup.select('body > p')#body followed by a direct p element (p-paragraph)
           print(para2)
           [<i>Some italicized text</i>, <b>Some bold text</b>]
 In [30]:
           for paragraph in para2:
              print(para2.find('i'))
           AttributeError
                                                     Traceback (most recent call last)
           <ipython-input-30-b3bafedc2f8c> in <module>
                 1 for paragraph in para2:
                      print(para2.find('i'))
           ---> 2
           c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\bs4\element.py in
           getattr (self, key)
                           __getattr__(self, key):
"""Raise a helpful exception to explain a common code fix."""
              2171
                      def
              2172
           -> 2173
                           raise AttributeError(
                               "ResultSet object has no attribute '%s'. You're probably treating a li
              2174
           st of elements like a single element. Did you call find_all() when you meant to call find
           ()?" % key
              2175
           AttributeError: ResultSet object has no attribute 'find'. You're probably treating a list
           of elements like a single element. Did you call find all() when you meant to call find()?
 In [31]:
           soup.select("[align=middle]")
 Out[31]: [<div align="middle">
            <h1>HTML Webpage</h1>
            Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/w">
           ebpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
            </div>]
 In [32]:
           h3 = soup.find('h2')
           h3.string
          'A Header'
 Out[32]:
 In [33]:
           print(div.prettify())
           <div align="middle">
            <h1>
            HTML Webpage
            </h1>
            >
             Link to more interesting example:
             <a href="https://keithgalli.github.io/web-scraping/webpage.html">
             keithgalli.github.io/web-scraping/webpage.html
             </a>
            </div>
Loading [Math]ax]/extensions/Safe.js
```

```
In [34]:
            print(div.string)
           None
 In [35]:
            print(div.get text())# if multiple element use get text
           HTML Webpage
           Link to more interesting example: keithgalli.github.io/web-scraping/webpage.html
 In [36]:
            #getting specific property from the element
            link = soup.find('a')
            link
 Out[36]: <a href="https://keithgalli.github.io/web-scraping/webpage.html">keithgalli.github.io/web-
           scraping/webpage.html</a>
 In [37]:
            link['href']
           'https://keithgalli.github.io/web-scraping/webpage.html'
 Out[37]:
 In [39]:
            paragraphs = soup.select('p#paragraph-id')
            paragraphs[0]['id']
           'paragraph-id'
 Out[39]:
 In [40]:
            paragraphs
           [<b>Some bold text</b>]
 Out[40]:
 In [42]:
            paragraphs[0]
           <b>Some bold text</b>
 Out[42]:
 In [43]:
            # code navigation
            soup.body
 Out[43]: <body>
           <div align="middle">
           <h1>HTML Webpage</h1>
           Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/we">https://keithgalli.github.io/web-scraping/we</a>
           bpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
           </div>
           <h2>A Header</h2>
           <i>Some italicized text</i>
           <h2>Another header</h2>
           <b>Some bold text</b>
           </body>
 In [44]:
            soup.body.div
 Out[44]: <div align="middle">
           <h1>HTML Webpage</h1>
           Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/we">https://keithgalli.github.io/web-scraping/we</a>
           bpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
Loading [MathJax]/extensions/Safe.js
```

```
In [45]:
           soup.body.div.h1
          <h1>HTML Webpage</h1>
 Out[45]:
 In [46]:
           soup.body.div.hl.string
          'HTML Webpage'
 Out[46]:
 In [47]:
           ## know the terms : paraents, siblings, child
           # in here the BODY is the parent of div and div is the child of the body
           # and the elements of the same level are sibling for example:body and the narrow down div
           print(soup.body.prettify())
          <body>
           <div align="middle">
             HTML Webpage
            </h1>
            >
             Link to more interesting example:
             <a href="https://keithgalli.github.io/web-scraping/webpage.html">
              keithgalli.github.io/web-scraping/webpage.html
             </a>
            </div>
           < h2 >
            A Header
           </h2>
           >
            <i>>
             Some italicized text
            </i>
           <h2>
            Another header
           </h2>
           <b>
             Some bold text
            </b>
           </body>
 In [48]:
           soup.body.find('div').find next siblings()
          [<h2>A Header</h2>,
 Out[48]:
           <i>Some italicized text</i>,
           <h2>Another header</h2>,
           <b>Some bold text</b>]
 In [49]:
           soup.body.find('h2').find_previous_siblings()
 Out[49]: [<div align="middle">
           <h1>HTML Webpage</h1>
           Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/w">
          ebpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
           </div>]
 In [50]:
           soup.find('h1').find_parent()
Loading [MathJax]/extensions/Safe.js
```

```
Out[50]: <div align="middle">
          <h1>HTML Webpage</h1>
          Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/we">https://keithgalli.github.io/web-scraping/we</a>
          bpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
          </div>
In [51]:
          soup.find('div').find parent()
Out[51]: <body>
          <div align="middle">
          <h1>HTML Webpage</h1>
          Link to more interesting example: <a href="https://keithgalli.github.io/web-scraping/we">https://keithgalli.github.io/web-scraping/we</a>
          bpage.html">keithgalli.github.io/web-scraping/webpage.html</a>
          </div>
          <h2>A Header</h2>
          <i>Some italicized text</i>
          <h2>Another header</h2>
          <b>Some bold text</b>
          </body>
In [52]:
          # excercise 1
          ## task1
          ## find all links
           r2=requests.get('https://keithgalli.github.io/web-scraping/webpage.html')
          soup1 = bs(r2.content)
          print(soup1.prettify())
          <head>
           <title>
            Keith Galli's Page
           </title>
           <style>
            table {
              border-collapse: collapse;
            }
            th {
              padding:5px;
            td {
              border: 1px solid #ddd;
              padding: 5px;
            }
            tr:nth-child(even) {
              background-color: #f2f2f2;
            th {
              padding-top: 12px;
              padding-bottom: 12px;
              text-align: left;
              background-color: #add8e6;
              color: black;
            .block {
            width: 100px;
            /*float: left;*/
              display: inline-block;
              zoom: 1;
            }
            .column {
            float: left;
            height: 200px;
            /*width: 33.33%;*/
            padding: 5px;
```

```
content: "";
   clear: both;
   display: table;
 }
</style>
</head>
<body>
<h1>
 Welcome to my page!
<img src="./images/selfie1.jpg" width="300px"/>
<h2>
 About me
</h2>
>
 Hi, my name is Keith and I am a YouTuber who focuses on content related to programming,
data science, and machine learning!
>
 Here is a link to my channel:
 <a href="https://www.youtube.com/kgmit">
  youtube.com/kgmit
 </a>
>
 I grew up in the great state of New Hampshire here in the USA. From an early age I alway
s loved math. Around my senior year of high school, my brother first introduced me to prog
ramming. I found it a creative way to apply the same type of logical thinking skills that
I enjoyed with math. This influenced me to study computer science in college and ultimatel
y create a YouTube channel to share some things that I have learned along the way.
< h3 >
 Hobbies
</h3>
>
 Believe it or not, I don't code 24/7. I love doing all sorts of active things. I like to
play ice hockey & table tennis as well as run, hike, skateboard, and snowboard. In add
ition to sports, I am a board game enthusiast. The two that I've been playing the most rec
ently are
 <i>>
  Settlers of Catan
 </i>
 and
 <i>>
  Othello
 </i>
<h3>
 Fun Facts
</h3>
Owned my dream car in high school
  <a href="#footer">
   <sup>
    1
   </sup>
  </a>
 <
  Middle name is Ronald
 Never had been on a plane until college
 <
  Dunkin Donuts coffee is better than Starbucks
```

```
A favorite book series of mine is
  <i>>
   Ender's Game
  </i>
 <
  Current video game of choice is
  <i>>
   Rocket League
  </i>
 <
  The band that I've seen the most times live is the
   Zac Brown Band
  </i>
 <h2>
 Social Media
I encourage you to check out my content on all social media platforms
<br/>
class="social instagram">
  <b>
   Instagram:
  </b>
  <a href="https://www.instagram.com/keithgalli/">
   https://www.instagram.com/keithgalli/
  </a>
 class="social twitter">
  <b>
   Twitter:
  <a href="https://twitter.com/keithgalli">
   https://twitter.com/keithgalli
  </a>
 class="social linkedin">
  <h>>
   LinkedIn:
  <a href="https://www.linkedin.com/in/keithgalli/">
   https://www.linkedin.com/in/keithgalli/
  </a>
 class="social tiktok">
  <b>
   TikTok:
  </b>
  <a href="https://www.tiktok.com/@keithgalli">
   https://www.tiktok.com/@keithgalli
  </a>
 <h2>
 Photos
</h2>
Here are a few photos from a trip to italy I took last year
<div class="row">
 <div class="column">
  <img alt="Lake Como" src="images/italy/lake como.jpg" style="height:100%"/>
 </div>
 <div class="column">
  <img alt="Pontevecchio, Florence" src="images/italy/pontevecchio.jpg" style="height:10"</pre>
0%"/>
 </div>
```

```
<img alt="Riomaggiore, Cinque de Terre" src="images/italy/riomaggiore.jpg" style="heigh
t:100%"/>
</div>
</div>
<div>
</div>
<h2>
Table
</h2>
My MIT hockey stats :)
<br/>br/>
<thead>
S
Team
League
GP
Α
TP
PTM
+/-
P<sub>0</sub>ST
GP
G
ΤP
PIM
+/-
</thead>
```

```
<img src="images/flag.png"/>
  </i>
  <span class="txt-blue">
   <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2014-201</pre>
5?tab=stats">
   MIT (Mass. Inst. of Tech.)
   </a>
  </span>
  <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015">
  </a>
  17
  20
  <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015">
  </a>
  2015 - 16
  <i>>
   <img src="images/flag.png"/>
  <span class="txt-blue">
   <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2015-201</pre>
6?tab=stats">
   MIT (Mass. Inst. of Tech.)
   </a>
  </span>
```

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```
<a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016">
  ACHA II
  </a>
 1
 2
 2
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016">
  </a>
 2016-17
 <i>>
  <img src="images/flag.png"/>
  </i>
  <span class="txt-blue">
  <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2016-201</pre>
7?tab=stats">
  MIT (Mass. Inst. of Tech.)
  </a>
  </span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2016-2017">
  ACHA II
  </a>
 12
 5
```

```
10
8
2017-18
Did not play
<a href="https://www.eliteprospects.com/stats">
</a>
<a href="https://www.eliteprospects.com/stats">
</a>
```

```
2018-19
  <i>>
   <img src="images/flag.png"/>
  <span class="txt-blue">
   <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2018-201</pre>
9?tab=stats">
   MIT (Mass. Inst. of Tech.)
   </a>
  </span>
  <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019">
  </a>
  15
  8
  <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019">
  <h2>
Mystery Message Challenge!
</h2>
>
 If you scrape the links below grabbing the <p&gt; tag with id="secret-word", you'll d
iscover a secret message :)
<div width="50%">
 <div align="left" class="block">
```

```
<a href="challenge/file_1.html">
     File 1
    </a>
   <
    <a href="challenge/file 2.html">
    File 2
    </a>
   <
    <a href="challenge/file 3.html">
     File 3
    </a>
   <
    <a href="challenge/file 4.html">
     File 4
    </a>
   <
    <a href="challenge/file_5.html">
    File 5
    </a>
   </div>
 <div align="center" class="block">
  ul>
   <
    <a href="challenge/file 6.html">
     File 6
    </a>
   <
    <a href="challenge/file 7.html">
    File 7
    </a>
   <
    <a href="challenge/file_8.html">
    File 8
    </a>
   <a href="challenge/file_9.html">
     File 9
    </a>
   <
    <a href="challenge/file_10.html">
     File 10
    </a>
   </div>
</div>
<h2>
 Footnotes
</h2>
1. This was actually a minivan that I named Debora. Maybe not my dream car, but I loved
her nonetheless.
</body>
```

```
<a href="#footer"><sup>1</sup></a>,
Out[53]:
          <a href="https://www.instagram.com/keithgalli/">https://www.instagram.com/keithgalli/</a</pre>
          <a href="https://twitter.com/keithgalli">https://twitter.com/keithgalli</a>,
          <a href="https://www.linkedin.com/in/keithgalli/">https://www.linkedin.com/in/keithgalli/
          <a href="https://www.tiktok.com/@keithgalli">https://www.tiktok.com/@keithgalli</a>,
          <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2014-2015?tab</pre>
         =stats"> MIT (Mass. Inst. of Tech.) </a>,
          <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015"> ACHA II </a>,
          <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015"> </a>,
          <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2015-2016?tab</pre>
         =stats"> MIT (Mass. Inst. of Tech.) </a>,
          <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016"> ACHA II </a>,
          <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016"> </a>,
          <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2016-2017?tab</pre>
         =stats"> MIT (Mass. Inst. of Tech.) </a>,
          <a href="https://www.eliteprospects.com/league/acha-ii/stats/2016-2017"> ACHA II </a>,
          <a href="https://www.eliteprospects.com/stats"> </a>,
          <a href="https://www.eliteprospects.com/stats"> </a>,
          <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2018-2019?tab</pre>
         =stats"> MIT (Mass. Inst. of Tech.) </a>,
          <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019"> ACHA III </a>,
          <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019"> </a>,
          <a href="challenge/file_1.html">File 1</a>,
          <a href="challenge/file 2.html">File 2</a>,
          <a href="challenge/file 3.html">File 3</a>,
          <a href="challenge/file 4.html">File 4</a>,
          <a href="challenge/file 5.html">File 5</a>,
          <a href="challenge/file 6.html">File 6</a>,
          <a href="challenge/file 7.html">File 7</a>,
          <a href="challenge/file_8.html">File 8</a>,
          <a href="challenge/file 9.html">File 9</a>,
          <a href="challenge/file 10.html">File 10</a>]
In [54]:
         links=soup1.select('ul.socials a')
         print(links)
         [<a href="https://www.instagram.com/keithgalli/">https://www.instagram.com/keithgalli/</a</pre>
         >, <a href="https://twitter.com/keithgalli">https://twitter.com/keithgalli</a>, <a href="h
         ttps://www.linkedin.com/in/keithgalli/">https://www.linkedin.com/in/keithgalli/</a>, <a hr
         ef="https://www.tiktok.com/@keithgalli">https://www.tiktok.com/@keithgalli</a>]
In [55]:
         actual_links =[link['href'] for link in links]
         actual links
Out[55]: ['https://www.instagram.com/keithgalli/',
          'https://twitter.com/keithgalli'
          'https://www.linkedin.com/in/keithgalli/',
          'https://www.tiktok.com/@keithgalli']
In [56]:
          ulist = soup1.find("ul", attrs = {"class":"socials"})
         print(ulist)
         <b>Instagram: </b><a href="https://www.instagram.com/keithgal")</pre>
         li/">https://www.instagram.com/keithgalli/</a>
         <b>Twitter: </b><a href="https://twitter.com/keithgalli">http
         s://twitter.com/keithgalli</a>
         <b>LinkedIn: </b><a href="https://www.linkedin.com/in/keithgal">
         li/">https://www.linkedin.com/in/keithgalli/</a>
         <b>TikTok: </b><a href="https://www.tiktok.com/@keithgalli">http
         s://www.tiktok.com/@keithgalli</a>
```

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```
print(links)
         [<a href="https://www.instagram.com/keithgalli/">https://www.instagram.com/keithgalli/</a</pre>
         >, <a href="https://twitter.com/keithgalli">https://twitter.com/keithgalli</a>, <a href="h
         ttps://www.linkedin.com/in/keithgalli/">https://www.linkedin.com/in/keithgalli/</a>, <a hr
         ef="https://www.tiktok.com/@keithgalli">https://www.tiktok.com/@keithgalli</a>]
 In [58]:
          actual links =[link['href'] for link in links]
         actual links
 Out[58]: ['https://www.instagram.com/keithgalli/',
          'https://twitter.com/keithgalli'
          'https://www.linkedin.com/in/keithgalli/',
          'https://www.tiktok.com/@keithgalli']
 In [60]:
         links = soup1.select("li.social a")
         print(links)
         [<a href="https://www.instagram.com/keithgalli/">https://www.instagram.com/keithgalli/</a</pre>
         >, <a href="https://twitter.com/keithgalli">https://twitter.com/keithgalli</a>, <a href="h
         ttps://www.linkedin.com/in/keithgalli/">https://www.linkedin.com/in/keithgalli/</a>, <a hr
         ef="https://www.tiktok.com/@keithgalli">https://www.tiktok.com/@keithgalli</a>]
 In [61]:
         actual links =[link['href'] for link in links]
         actual links
         ['https://www.instagram.com/keithgalli/',
 Out[61]:
          'https://twitter.com/keithgalli',
          'https://www.linkedin.com/in/keithgalli/',
          'https://www.tiktok.com/@keithgalli']
 In [62]:
         # scrape table
         soup1.select('tbody')
 Out[62]: [
          2014-15
                      <i><imq src="images/flag.png"/></i>
          <span class="txt-blue">
          <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2014-2015?tab</pre>
         =stats"> MIT (Mass. Inst. of Tech.) </a>
          </span>
           <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-201"///
</pre>
         5"> ACHA II </a> 
          17
          3
          9
          12
          20
           | 
          <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015"> </a>
          Loading [MathJax]/extensions/Safe.js Peason a">
```

```
2015-16
      <i><imq src="images/flag.png"/></i>
<span class="txt-blue">
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2015-2016?tab</pre>
=stats"> MIT (Mass. Inst. of Tech.) </a>
</span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-201</pre>
6"> ACHA II </a> 
9
1
1
2
2
 | 
<a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016"> </a>
2016-17
      <i><img src="images/flag.png"/></i>
<span class="txt-blue">
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2016-2017?tab</pre>
=stats"> MIT (Mass. Inst. of Tech.) </a>
</span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2016-201</pre>
7"> ACHA II </a> 
12
5
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10
8
0
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```

```
2017-18
         Did not play
          <a href="https://www.eliteprospects.com/stats"> </a> 
     | 
    <a href="https://www.eliteprospects.com/stats"> </a>
    2018-19
         <i><img src="images/flag.png"/></i>
    <span class="txt-blue">
    <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2018-2019?tab</pre>
   =stats"> MIT (Mass. Inst. of Tech.) </a>
    </span>
     <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-20</pre>
   19"> ACHA III </a> 
    8
    5
    10
    15
    8
     | 
    <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019"> </a>
    Loading [MathJax]/extensions/Safe.js season tp">
```

```
1
In [63]:
      soup1.select('table td')
Out[63]: [
                2014-15
             ,
      <i><imq src="images/flag.png"/></i>
      <span class="txt-blue">
      <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2014-2015?tab</pre>
     =stats"> MIT (Mass. Inst. of Tech.) </a>
      </span>
      ,
       <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-201</pre>
     5"> ACHA II </a> ,
      17,
      3,
      9,
      12,
      20,
      ,
       | ,
      <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015"> </a>
      ,
      ,
      ,
      ,
      ,
      .
      ,
      2015-16
             .
      <i><imq src="images/flag.png"/></i>
      <span class="txt-blue">
      <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2015-2016?tab</pre>
     =stats"> MIT (Mass. Inst. of Tech.) </a>
      </span>
      ,
       <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-201</pre>
     6"> ACHA II </a> ,
      9,
      1,
      1,
      2,
      2,
      ,
       | ,
      <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016"> </a>
      .
      .
Loading [MathJax]/extensions/Safe.js season g">
```

```
,
    ,
    ,
    ,
    2016-17
         .
    <i><imq src="images/flag.png"/></i>
    <span class="txt-blue">
    <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2016-2017?tab</pre>
   =stats"> MIT (Mass. Inst. of Tech.) </a>
    </span>
    ,
     <a href="https://www.eliteprospects.com/league/acha-ii/stats/2016-201</pre>
    7"> ACHA II </a> ,
    12,
    5,
    5,
    10,
    8,
    0,
     | ,
    ,
    .
    ,
    .
    ,
    ,
    ,
    2017-18
         ,
    Did not play
         ,
     <a href="https://www.eliteprospects.com/stats"> </a> 
    ,
    ,
    ,
    ,
    ,
    ,
     | ,
    <a href="https://www.eliteprospects.com/stats"> </a>
    .
    ,
    ,
    ,
    .
    ,
Loading [MathJax]/extensions/Safe.js season pm">
```

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,
   2018-19
       ,
   <i><img src="images/flag.png"/></i>
   <span class="txt-blue">
   <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2018-2019?tab</pre>
  =stats"> MIT (Mass. Inst. of Tech.) </a>
   </span>
   ,
    <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-20</pre>
  19"> ACHA III </a> ,
   8,
   5,
   10,
   15,
   8,
   ,
    | ,
   <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019"> </a>
   ,
   .
   ,
   ,
   ,
   ,
   1
In [72]:
   import pandas as pd
   table =soup1.select('table.hockey-stats')[0]
   print(table)
  <thead>
  S
  Team
  League
  GP
  G
  A
  TP
  PIM
  +/-

  POST
  GP
  G
  A
  TP
  PIM
  +/-
  </thead>
  2014-15
```

```
<i><img src="images/flag.png"/></i>
<span class="txt-blue">
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2014-2015?tab=</pre>
stats"> MIT (Mass. Inst. of Tech.) </a>
</span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-201</pre>
5"> ACHA II </a> 
17
3
9
12
20
 | 
<a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015"> </a>
2015-16
      <i><img src="images/flag.png"/></i></i>
<span class="txt-blue">
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2015-2016?tab=</pre>
stats"> MIT (Mass. Inst. of Tech.) </a>
</span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-201</pre>
6"> ACHA II </a> 
9
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1
2
2
 | 
<a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016"> </a>
2016-17
```

```
<i><img src="images/flag.png"/></i></i>
<span class="txt-blue">
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2016-2017?tab=</pre>
stats"> MIT (Mass. Inst. of Tech.) </a>
</span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2016-201</pre>
7"> ACHA II </a> 
12
5
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10
8
0
 | 
2017 - 18
    Did not play
     <a href="https://www.eliteprospects.com/stats"> </a> 
 | 
<a href="https://www.eliteprospects.com/stats"> </a>
2018-19
    <i><img src="images/flag.png"/></i>
```

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```
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2018-2019?tab=</pre>
     stats"> MIT (Mass. Inst. of Tech.) </a>
     </span>
      <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-201</pre>
     9"> ACHA III </a> 
     8
     5
     10
     15
     8
      | 
     <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019"> </a>
     In [73]:
      columns = table.find('thead').find all('th')
      print(columns)
     [S, Team, <th
     class="league" data-sort="league">League, GP</t
     h>, G, A</th
     >, TP, 
     PIM, +/-,  , <t
     h class="postseason">POST, GP,
     G, 
     ="playoffs-a">A, TP, <th class
     ="postseason pim" data-sort="playoffs-pim">PIM, <th class="postseason pm" data-sort
     ="playoffs-pm">+/-]
In [74]:
      column names = [c.string for c in columns]
      print(column names)
      ['S', 'Team', 'League', 'GP', 'G', 'A', 'TP', 'PIM', '+/-', '\xa0', 'POST', 'GP', 'G',
      'A', 'TP', 'PIM', '+/-']
In [76]:
      table rows = table.find('tbody').find all('tr')
      table rows
Out[76]: [
      2014-15
             <i><img src="images/flag.png"/></i>
      <span class="txt-blue">
      <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2014-2015?tab</pre>
     =stats"> MIT (Mass. Inst. of Tech.) </a>
      </span>
      Loading [MathJax]/extensions/Safe.js
```

```
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-201
     5"> ACHA II </a> 
     17
     3
     9
     12
     20
      | 
     <a href="https://www.eliteprospects.com/league/acha-ii/stats/2014-2015"> </a>
     ,
     2015-16
           <i><imq src="images/flag.png"/></i>
     <span class="txt-blue">
     <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2015-2016?tab</pre>
    =stats"> MIT (Mass. Inst. of Tech.) </a>
     </span>
      <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-201</pre>
    6"> ACHA II </a> 
     9
     1
     1
     2
     2
      | 
     <a href="https://www.eliteprospects.com/league/acha-ii/stats/2015-2016"> </a>
     ,
     2016-17
           <i><img src="images/flag.png"/></i>
     <span class="txt-blue">
     <a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2016-2017?tab</pre>
Loading [MathJax]/extensions/Safe.js $5. Inst. of Tech.) </a>
```

```
</span>
 <a href="https://www.eliteprospects.com/league/acha-ii/stats/2016-201</pre>
7"> ACHA II </a> 
12
5
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 | 
,
2017-18
     Did not play
      <a href="https://www.eliteprospects.com/stats"> </a> 
 | 
<a href="https://www.eliteprospects.com/stats"> </a>
,
2018-19
     <i><img src="images/flag.png"/></i>
<span class="txt-blue">
<a href="https://www.eliteprospects.com/team/10263/mit-mass.-inst.-of-tech./2018-2019?tab</pre>
=stats"> MIT (Mass. Inst. of Tech.) </a>
</span>
 <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-20</pre>
```

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```
8
          5
          10
          15
          8
           | 
          <a href="https://www.eliteprospects.com/league/acha-iii/stats/2018-2019"> </a>
          ]
 In [80]:
         l =[]
         for tr in table rows:
             td =tr.find all('td')
             row =[str(tr.get text()).strip() for tr in td]
             l.append(row)
             print(l[0])
                   'MIT (Mass. Inst. of Tech.)', 'ACHA II', '17', '3', '9', '12', '20', '', '|',
         ['2014-15'
                   'MIT (Mass. Inst. of Tech.)', 'ACHA II', '17', '3', '9', '12', '20', '', '|',
                   '', '', '', '']
         ['2014-15',
                   'MIT (Mass. Inst. of Tech.)', 'ACHA II', '17', '3', '9', '12', '20', '', '|',
           '', '<sup>i</sup>, '', '']
          2014-15'
                   'MIT (Mass. Inst. of Tech.)', 'ACHA II', '17', '3', '9', '12', '20', '', '|',
           , 11, 11
                   '', '<sup>i</sup>, '', '']
         ['2014-15',
                   'MIT (Mass. Inst. of Tech.)', 'ACHA II', '17', '3', '9', '12', '20', '', '|',
          , '', ''
 In [93]:
         df = pd.DataFrame((0,1),columns=column names)
         df
                                            Traceback (most recent call last)
         ValueError
         c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\pandas\core\intern
         als\managers.py in create_block_manager_from_blocks(blocks, axes)
                             blocks = [
           1674
         -> 1675
                                make block(
           1676
                                   values=blocks[0], placement=slice(0, len(axes[0])), ndim=2
         c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\pandas\core\intern
         als\blocks.py in make block(values, placement, klass, ndim, dtype)
           2731
         -> 2732
                   return klass(values, ndim=ndim, placement=placement)
           2733
         c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\pandas\core\intern
                       init (self, values, placement, ndim)
         als\blocks.py in
                      if self. validate ndim and self.ndim and len(self.mgr locs) != len(self.va
            141
         lues):
         --> 142
                          raise ValueError(
            143
                             f"Wrong number of items passed {len(self.values)}, "
Loading [MathJax]/extensions/Safe.js number of items passed 1, placement implies 17
```

```
During handling of the above exception, another exception occurred:
                                          Traceback (most recent call last)
ValueError
<ipython-input-93-9402710deda4> in <module>
---> 1 df = pd.DataFrame((0,1),columns=column names)
     2 df
c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\pandas\core\frame.
      init (self, data, index, columns, dtype, copy)
                            mgr = arrays_to_mgr(arrays, columns, index, columns, dtype=dty
    582
pe)
    583
--> 584
                            mgr = init ndarray(data, index, columns, dtype=dtype, copy=cop
y)
    585
                    else:
                        mgr = init dict({}, index, columns, dtype=dtype)
    586
c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\pandas\core\intern
als\construction.py in init ndarray(values, index, columns, dtype, copy)
                block values = [values]
    237
--> 238
            return create block manager from blocks(block values, [columns, index])
    239
    240
c:\users\andre\appdata\local\programs\python\python39\lib\site-packages\pandas\core\intern
als\managers.py in create block manager from blocks(blocks, axes)
                blocks = [getattr(b, "values", b) for b in blocks]
   1685
   1686
                tot items = sum(b.shape[0] for b in blocks)
-> 1687
                raise construction error(tot items, blocks[0].shape[1:], axes, e)
   1688
   1689
ValueError: Shape of passed values is (2, 1), indices imply (2, 17)
```

In []: