

Program Code: J620-002-4:2020

Program Name: FRONT-END SOFTWARE DEVELOPMENT

Title: Introduction of BeautifulSoup - Part 2

Name:		
IC Number:		
Date :		
Introduction :		
Conclusion :		

P13 - Introduction of BeautifulSoup - Part 2

BeautifulSoup is a library for **parsing HTML and XML documents**.

Requests with BeautifulSoup (a parsing library) are the best package tools for small and quick web scraping.

https://www.crummy.com/software/BeautifulSoup/ (https://www.crummy.com/software/BeautifulSoup/)

https://www.crummy.com/software/BeautifulSoup/bs4/doc/ (https://www.crummy.com/software/BeautifulSoup/bs4/doc/)

Installation

pip3 install bs4

conda install -c anaconda beautifulsoup4

Methods

Find All

Find

In [1]:

```
from bs4 import BeautifulSoup
import requests
```

In [17]:

```
#page = requests.get("https://www.ebay.com.my/sch/Car-Truck-Parts/6030/i.html?_from=R40&
page = requests.get("https://www.ebay.com.my/sch/Car-Truck-Parts/6030/i.html?_from=R40&_
page.status_code
```

Out[17]:

200

In [18]:

```
page.content
```

Out[18]:

b'<!DOCTYPE html><!--[if IE 9]><html class="ie9" lang="en"><![endif]--> <!--[if gt IE 9]><!--><html lang="en"><!--<![endif]--><!--M#s0-2--><nos cript class=x-page-config></noscript><!--M/--><head><meta http-equiv=X-</pre> UA-Compatible content=IE=edge><script>"use strict";if(window.Performanc eObserver&&performance&&performance.mark&&performance.getEntriesByName) {window.SRP=window.SRP||{};var paintObserver=new window.PerformanceObse rver((function(e){var r=e.getEntries();if(r.sort((function(e,r){return e.startTime-r.startTime})),r&&!(r.length<2)){var n=r[1].startTime;windo w.SRP.TTI_TIMER={lastInteractiveWindow:n}; var t=new window.PerformanceO bserver((function(e){for(var r=e.getEntries(),i=0,a=r.length;i<a;i++)r</pre> [i].startTime-n>=5e3&&(window.SRP.TTI_TIMER.timeToInteract=n,t.disconne ct()),n=r[i].startTime+r[i].duration,window.SRP.TTI_TIMER.lastInteracti veWindow=n}));t.observe({entryTypes:["longtask"]}),paintObserver.discon nect()}}));paintObserver.observe({entryTypes:["paint"]})};</script><met</pre> a name="description" content="Find Proton from a vast selection of Car & Truck Parts & Accessories. Get great deals on eBay!" /><title</pre> >Proton in Car & Truck Parts & Accessories | eBay</title><meta name="referrer" content="unsafe-url" /><meta name="v kev" content="cdch

```
In [19]:
```

```
soup = BeautifulSoup(page.content, 'html.parser')
Out[19]:
<!DOCTYPE html>
<!--[if IE 9]><html class="ie9" lang="en"><![endif]--><!--[if gt IE 9]>
<!--><html lang="en"><!--<![endif]--><!--M#s0-2--><noscript class="x-pa"
ge-config"></noscript><!--M/--><head><meta content="IE=edge" http-equiv</pre>
="X-UA-Compatible"/><script>"use strict";if(window.PerformanceObserver&
&performance&&performance.mark&&performance.getEntriesByName){window.SR
P=window.SRP||{};var paintObserver=new window.PerformanceObserver((func
tion(e){var r=e.getEntries();if(r.sort((function(e,r){return e.startTim
e-r.startTime})),r&&!(r.length<2)){var n=r[1].startTime;window.SRP.TTI_
TIMER={lastInteractiveWindow:n};var t=new window.PerformanceObserver((f
unction(e){for(var r=e.getEntries(),i=0,a=r.length;i<a;i++)r[i].startTi</pre>
me-n>=5e3&&(window.SRP.TTI_TIMER.timeToInteract=n,t.disconnect()),n=r
[i].startTime+r[i].duration,window.SRP.TTI_TIMER.lastInteractiveWindow=
n}));t.observe({entryTypes:["longtask"]}),paintObserver.disconnect
()}}));paintObserver.observe({entryTypes:["paint"]})};</script><meta co
ntent="Find Proton from a vast selection of Car & amp; Truck Parts & amp;
Accessories. Get great deals on eBay!" name="description"><title>Proton
in Car &amn: Truck Parts &amn: Accessories | eBav</title><meta content
```

Observe that the downloaded page

In [21]:

```
print(soup.prettify())
<!DOCTYPE html>
<!--[if IE 9]><html class="ie9" lang="en"><![endif]-->
<!--[if gt IE 9]><!-->
<html lang="en">
<!--<![endif]-->
<!--M#s0-2-->
 <noscript class="x-page-config">
 </noscript>
 <!--M/-->
 <head>
  <meta content="IE=edge" http-equiv="X-UA-Compatible"/>
  <script>
   "use strict";if(window.PerformanceObserver&&performance&&performanc
e.mark&&performance.getEntriesByName){window.SRP=window.SRP||{}};var pai
ntObserver=new window.PerformanceObserver((function(e){var r=e.getEntri
es();if(r.sort((function(e,r){return e.startTime-r.startTime})),r&&!(r.
length<2)){var n=r[1].startTime;window.SRP.TTI TIMER={lastInteractiveWi</pre>
ndow:n};var t=new window.PerformanceObserver((function(e){for(var r=e.g
etEntries(),i=0,a=r.length;i<a;i++)r[i].startTime-n>=5e3&&(window.SRP.T
```

Observe that the HTML doc is now a human readable document

```
In [22]:
```

```
list(soup.children)
Out[22]:
['html',
 '[if IE 9]><html class="ie9" lang="en"><![endif]',
 '[if gt IE 9]><!',
 <html lang="en"><!--<![endif]--><!--M#s0-2--><noscript class="x-page-c</pre>
onfig"></noscript><!--M/--><head><meta content="IE=edge" http-equiv="X-
UA-Compatible"/><script>"use strict";if(window.PerformanceObserver&&per
formance&&performance.mark&&performance.getEntriesByName){window.SRP=wi
ndow.SRP||{};var paintObserver=new window.PerformanceObserver((function
(e){var r=e.getEntries();if(r.sort((function(e,r){return e.startTime-r.
startTime})),r&&!(r.length<2)){var n=r[1].startTime;window.SRP.TTI_TIME
R={lastInteractiveWindow:n};var t=new window.PerformanceObserver((funct
ion(e){for(var r=e.getEntries(),i=0,a=r.length;i<a;i++)r[i].startTime-n</pre>
>=5e3&&(window.SRP.TTI_TIMER.timeToInteract=n,t.disconnect()),n=r[i].st
artTime+r[i].duration,window.SRP.TTI_TIMER.lastInteractiveWindow=n}));
t.observe({entryTypes:["longtask"]}),paintObserver.disconnect()}}));pai
ntObserver.observe({entryTypes:["paint"]})};</script><meta content="Fin</pre>
d Proton from a vast selection of Car & Truck Parts & Accessori
es. Get great deals on eBav!" name="description"><title>Proton in Car &
```

Now go back to Ebay Page and observe the listing for repeatable items

Observe the listed items and corresponding HTML tags

We want to grab all the product listed on the page

In [23]:

```
soup_list = soup.findAll("li", attrs={"class":"s-item s-item__pl-on-bottom"})
soup_list
```

Out[23]:

```
[
-viewport='{"trackableId":"01GDF2P4GS7EBZ8M2AWN707B"}' id=""><div class</pre>
="s-item wrapper clearfix"><!--F#f 0--><div class="s-item image-secti
on"><div class="s-item__image"><a _sp="" aria-hidden="true" data-carous
\verb|el-tab| index="-1"| data-interactions='[{"actionKind":"NAVSRC","interactions="continuous continuous contin
n":"wwFVrK2vRE0lhQY0MREUzME5KNVY2VE1XNkJEMTUAAAg3NDAwDE5BV1NSQwA="}]' d
ata-s-u4q4440='{"eventFamily":"LST", "eventAction": "ACTN", "actionKin
d":"NAVSRC", "actionKinds":["NAVSRC"], "operationId":"", "flushImmediatel
y":false,"eventProperty":{"trackableId":"01GDF2P4GS7EBZ8M2AWN707B","int
eraction": "wwFVrK2vRE01hQY0MREUzME5KNVY2VE1XNkJEMTUAAAg3NDAwDE5BV1NSQwA
="}}' href="https://ebay.com/itm/123456?hash=item28caef0a3a:g:E3kAAOSwl
GJiMikD&amdata=enc%3AAQAHAAAAsJoWXGf0hxNZspTmhb8%2FTJCCurAWCHuXJ2Xi
3S9cwXL6BX04zSEiVaDMCvsUbApftgXEAHGJU1ZGugZ0%2FnW1U7Gb6vgoL%2BmXlqCbLkw
oZfF3AUAK8YvJ5B4%2BnhFA7ID4dxpYs4jjExEnN5SR2g1mQe7QtLkmGt%2FZ%2FbH2W62c
XPuKbf550ExbnBPO2QJyZTXYCuw5KVkMdFMDuoB4p3FwJKcSPzez5kyQyVjyiIq6PB2q%7C
tkp%3ABlBMULq7kqyXYA" tabindex="-1" target="_blank"><div class="s-item_
_image-wrapper image-treatment"><img alt="Shop on eBay" fetchpriority
="high" loading="eager" onerror="window.SRP.metrics.incrementCounter('i
```

In [32]:

for items in range(len(soup_list)):
 print(items)

```
61
62
63
64
```

In [28]:

```
#show only 1
soup_list = soup.find("li", attrs={"class":"s-item s-item__pl-on-bottom"})
soup_list
```

Out[28]:

wport='{"trackableId":"01GDF2P4GS7EBZ8M2AWN707B"}' id=""><div class="s-ite m_wrapper clearfix"><!--F#f_0--><div class="s-item__image-section"><div c</pre> lass="s-item__image"><a _sp="" aria-hidden="true" data-carousel-tabindex</pre> ="-1" data-interactions='[{"actionKind":"NAVSRC","interaction":"wwFVrK2vRE 01hQY0MREUzME5KNVY2VE1XNkJEMTUAAAg3NDAwDE5BV1NSQwA="}]' data-s-u4q4440 ='{"eventFamily":"LST","eventAction":"ACTN","actionKind":"NAVSRC","actionK inds":["NAVSRC"],"operationId":"","flushImmediately":false,"eventPropert y":{"trackableId":"01GDF2P4GS7EBZ8M2AWN707B","interaction":"wwFVrK2vRE0lhQ Y0MREUzME5KNVY2VE1XNkJEMTUAAAg3NDAwDE5BV1NSQwA="}}' href="https://ebay.co m/itm/123456?hash=item28caef0a3a:g:E3kAAOSwlGJiMikD&amdata=enc%3AAQAHA AAAsJoWXGf0hxNZspTmhb8%2FTJCCurAWCHuXJ2Xi3S9cwXL6BX04zSEiVaDMCvsUbApftgXEA HGJU1ZGugZ0%2FnW1U7Gb6vgoL%2BmX1qCbLkwoZfF3AUAK8YvJ5B4%2BnhFA7ID4dxpYs4jjE xEnN5SR2g1mQe7QtLkmGt%2FZ%2FbH2W62cXPuKbf550ExbnBP02QJyZTXYCuw5KVkMdFMDuoB 4p3FwJKcSPzez5kyQyVjyiIq6PB2q%7Ctkp%3AB1BMULq7kqyXYA" tabindex="-1" target ="_blank"><div class="s-item__image-wrapper image-treatment"></div></div></div></div></div><idiv class="s-item__info clearfix"><a sp=""</pre> class="s-item__link" data-interactions='[{"actionKind":"NAVSRC","interacti on":"wwFVrK2vRE01hQY0MREUzME5KNVY2VE1XNkJEMTUAAAg3NDAwDE5BV1NSQwA="}]' dat a-s-u4q4440='{"eventFamily":"LST", "eventAction": "ACTN", "actionKind": "NAVSR C", "actionKinds":["NAVSRC"], "operationId":"", "flushImmediately":false, "eve ntProperty":{"trackableId":"01GDF2P4GS7EBZ8M2AWN707B","interaction":"wwFVr K2vRE0lhQY0MREUzME5KNVY2VE1XNkJEMTUAAAg3NDAwDE5BVlNSQwA="}}' href="http s://ebay.com/itm/123456?hash=item28caef0a3a:g:E3kAAOSwlGJiMikD&amdata= enc%3AAQAHAAAAsJoWXGf0hxNZspTmhb8%2FTJCCurAWCHuXJ2Xi3S9cwXL6BX04zSEiVaDMCv sUbApftgXEAHGJU1ZGugZ0%2FnW1U7Gb6vgoL%2BmXlqCbLkwoZfF3AUAK8YvJ5B4%2BnhFA7I D4dxpYs4jjExEnN5SR2g1mQe7QtLkmGt%2FZ%2FbH2W62cXPuKbf550ExbnBP02QJyZTXYCuw5 KVkMdFMDuoB4p3FwJKcSPzez5kyQyVjyiIq6PB2q%7Ctkp%3AB1BMULq7kqyXYA" tabindex ="-1" target=" blank"><div class="s-item title"><!--F#f_0-->Shop on eBay<!--F/--></div>Opens in a new window or tab<div class="s-item__subtitle"> <!--F#f_0-->Brand New<!--F/--></div><d iv class="s-item__details clearfix"><div class="s-item__detail s-item__det</pre> ail--primary"><!--F#f_0--><!--F#f_0-->\$20.00<! --F/--><!--F/--></div><div class="s-item detail s-item detail--pr imary"><!--</pre> F#f 0-->or Best Offer<!--F/--></div><div class="s-item detail s-it em__detail--primary"> <div aria-labelledby="s-u4q4440" class="s-u4q4 440_s-zkr3679" role="text"><wbr/>Sponsored </div></div></div></div><!--F/--></div>

In [30]:

```
# FindAll but get the Nth item from the Match
soup_list = soup.findAll("li", attrs={"class":"s-item s-item__pl-on-bottom"})[1]
soup_list
```

Out[30]:

```
wport='{"trackableId":"01H4D63AFY2DD6JRDDQDZT0NAT"}' id="item54d3c37da6"><</pre>
div class="s-item_wrapper clearfix"><!--F#f_0--><div class="s-item_image"><!--F#f_0--><div class="s-ite
-section"><div class="s-item__image"><a _sp="p2351460.m1686.17400" aria-hi
dden="true" data-carousel-tabindex="-1" data-interactions='[{"actionKin
d": "NAVSRC", "interaction": "wwFVrK2vRE0lhQQ0MDFINEQ2M0FLRldIM1lSV0gwTjVTV0U
3TVM0MDFINEQ2M0FGWTJERDZKUkREUURaVDBOQVQAAAg3NDAwDE5BV1NSQwA="}]' data-s-u
4q4440='{"eventFamily":"LST", "eventAction": "ACTN", "actionKind": "NAVSRC", "a
ctionKinds":["NAVSRC"], "operationId":"2351460", "flushImmediately":false, "e
ventProperty":{"$1":"512428231348299"}}' href="https://www.ebay.com.my/it
m/364330057126?hash=item54d3c37da6:g:XMkAAOSwGD5koEyF&amdata=enc%3AAQA
IAAAA4NJJj31EbzzWmNbd%2BzBhMvIqqwe3ehxTlTeUIDJ%2FvFYsB960MDliHFW%2BhtbbeNw
NpWo5ksXvb1EWmqa4opNsGs5ZAfMmybloGpUXBkZJwGCy1v%2BRZvdLNrlUKmMD6XbWFnt50WO
ZGUe4wMPfYaZoxOxhBXW9m7V%2FGZq2XnZ0NGOE9Cw75goAajd3YM6fZF0J7ej81y0hlpL%2BX
mYNbX%2BSKWfOmiVMBwpXAqHODLyHK5Srak0EKJA1duP%2Fg6SBdX3XKNTgQwHSNbWzK9o%2B3
21AV990Sz4Kx4j8d%2F0N3zzEi7zA%7Ctkp%3ABk9SR4SojaajYg" tabindex="-1" target
="_blank"><div class="s-item__image-wrapper image-treatment"><img alt="Pro
ton Saga Mitsuboshi CPK865 Original Fan Belt Brand New" fetchpriority="hig
h" loading="eager" onerror="window.SRP.metrics.incrementCounter('imageLoad
Error');" onload="SITE_SPEED.ATF_TIMER.measure(this); if (performance &am
p;& performance.mark) { performance.mark("first-meaningful-paint&
quot;); };if(this.width === 80 && this.height === 80) {window.SRP.
metrics.incrementCounter('imageEmptyError');}" src="https://i.ebayimg.com/
thumbs/images/g/XMkAAOSwGD5koEyF/s-1300.jpg"/></div></a></div><!--M#s0-53-
16-6-3-3[0]-10-1-14--><span class="s-item__watchheart on-image s-item wat
chheart--watch"><a _sp="" aria-label="watch Proton Saga Mitsuboshi CPK865
Original Fan Belt Brand New" class="s-item__watchheart-click" data-s-u4q44
40='{"eventFamily":"LST","eventAction":"ACTN","actionKind":"NAVSRC","actio
nKinds":["NAVSRC"], "operationId": "2351460", "flushImmediately":false, "event
Property":{"trackableId":"01H4D63AFY2DD6JRDDQDZT0NAT","clickaction":"WATC
H", "amdata": "amclksrc=A2W", "adctrl": "AD CTRL ATW ADD", "enc": "AQAIAAAA4NJJi
31EbzzWmNbd+zBhMvIqqwe3ehxTlTeUIDJ/vFYsB960MDliHFW+htbbeNwNpWo5ksXvb1EWmqa
4opNsGs5ZAfMmybloGpUXBkZJwGCy1v+RZvdLNrlUKmMD6XbWFnt50W0ZGUe4wMPfYaZox0xhB
XW9m7V/GZq2XnZ0NGOE9Cw75goAajd3YM6fZF0J7ej81y0hlpL+XmYNbX+SKWfOmiVMBwpXAqH
ODLyHK5Srak0EKJA1duP/g6SBdX3XKNTgQwHSNbWzK9o+321AV99OSz4Kx4j8d/0N3zzEi7z
A", "moduledtl": "p2351460.m4114.18480", "sid": "p2351460.m4114.18480"}}' href
="https://www.ebay.com.my/myb/WatchListAdd?item=364330057126&pt=null&a
mp;srt=01000800000050166b24d14ae2cfdfdfac218cac7b33a1df0ab1dc1fdabcabb4301
fffa03a19aea6565c6ace0b64c7eeb61d92cdf4dbd189aa2c00c8158e4d3e07ceb7de26977
bd784c18bf3bd3f7bbcb25f0bf3c17741&ru=https%3A%2F%2Fwww.ebay.com.my%2Fs
ch%2FCar-Truck-Parts%2F6030%2Fi.html%3F_from%3DR40%26_nkw%3DProton%26rt%3D
nc%26 pppn%3Dr1%26 fsrp%3D1"><span class="s-item watchheart-icon"><!--M#s
0-53-16-6-3-3[0]-10-1-14-8-1-10-1-0--><svg aria-hidden="true" class="icon
icon--save-24" focusable="false"><defs data-marko-key="@defs s0-53-16-6-3-
3[0]-10-1-14-8-1-10-1-0"><symbol id="icon-save-24" viewbox="0 0 24 24"><pa
th clip-rule="evenodd" d="M12 4.467c-.76-.817-1.488-1.395-2.213-1.785C8.79
8 2.15 7.877 2 7 2 3.153 2 1 5.079 1 8.21c0 2.193 1.262 3.873 2.27 4.94818
8.526a.996.996 0 0 0 1.46 013.998-4.261v-.00114.001-4.264C21.738 12.083 23
10.403 23 8.21 23 5.079 20.847 2 17 2c-.878 0-1.798.15-2.787.682-.725.39-
1.452.968-2.213 1.785Zm-.792 2.144c-.943-1.177-1.716-1.816-2.37-2.168C8.20
2 4.1 7.622 4 7 4 4.484 4 3 5.942 3 8.21c0 1.408.816 2.606 1.73 3.58L12 1
9.53817.27-7.75C20.184 10.815 21 9.617 21 8.21 21 5.942 19.516 4 17 4c-.62
2 0-1.201.1-1.838.443-.654.352-1.427.991-2.37 2.168a1.015 1.015 0 0 1-.38
1.301 1.002 1.002 0 0 1-1.203-.301Z" fill-rule="evenodd"></path></symbol>
</defs><use xlink:href="#icon-save-24"></use></svg><!--M/--><!--M#s0-53-16
-6-3-3[0]-10-1-14-8-1-10-2-0--><svg aria-hidden="true" class="icon icon--s
ave-filled-24" focusable="false"><defs data-marko-key="@defs s0-53-16-6-3-
24"><path d="M7 2C3.153 2 1 5.079 1 8.21c0 2.193 1.262 3.873 2.27 4.94818
8.526a1 1 0 0 0 1.46 018-8.526C21.737 12.083 23 10.403 23 8.21 23 5.079 2
0.847 2 17 2c-.878 0-1.798.15-2.787.682-.725.39-1.452.968-2.213 1.785-.76
```

_itemLocation"><!--F#f_0-->from Malaysia<!--F/--></div><div class ="s-item__detail s-item__detail--primary"> <div aria-labelledby="s-z kr3679" class="s-zkr3679_s-u4q4440" role="text">< wbr/>Sponsored</div>

</div></div>

In [37]:

```
soup_list = soup.findAll("li", attrs={"class":"s-item s-item__pl-on-bottom"})
for items in range(len(soup_list)):
    print(soup_list[items].find("div", attrs={"class":"s-item__title"}).text)
```

Shop on eBay

Proton Saga Mitsuboshi CPK865 Original Fan Belt Brand New

4D68 For MITSUBISHI GALANT OR PROTON PERSONA 400 Engine Rebuild Kits Auto Engine

Tail Lamp Proton Perdana V6 RH

New ListingProton Satria Phase 1 94-05 Drivers Manual Door Mirror

New ListingProton Satria 94-05 Passenger Electric Window Regulator

5PK865 GATES V-Ribbed Belt for BMW,BYD,FERRARI,MITSUBISHI,PROTON,TOYOTA,ZH ONGHUA

New Listing1 987 949 536 ENGINE TIMING BELT CAM BELT BOSCH NEW OE REPLACEM ENT

CT841 CONTITECH TIMING BELT (Mitsubishi, Proton 1.6 92-) NEW O.E SPEC! New ListingBOSCH ZAHNRIEMEN STEUERRIEMEN 1 987 948 832 P FÜR PROTON SATRI A,PERSONA 400

New ListingENGINE TIMING BELT CAM BELT CONTITECH CT738 A FOR PROTON PERSON A 400,WIRA

New ListingENGINE TIMING BELT CAM BELT CONTITECH CT821 P FOR PROTON PERSON A 400 1.8L 85KW

Keilrippenriemen MAPCO 261675 für AUDI CITROËN FIAT FORD PEUGEOT PROTON RE NAULT

Timing Belt fits PROTON SATRIA 1.6 96 to 00 4G92 Contitech MD176386 Quality New

New Genuine DAYCO Timing Belt Camshaft For Proton Persona Satria Wira #945

DAYCO TIMING BELT KIT for PROTON SUPRIMA 01/2014-on 1.6 4cyl TMPFI TURBO C R IAFM

BOSCH ZAHNRIEMEN STEUERRIEMEN 1 987 949 518 P FÜR PROTON SAVVY 1.2 1.2L 55 KW

New DAYCO Timing Belt Kit For Proton M21 KTBA120

GATES K014PK928 V-Ribbed Belt Set for DACIA, NISSAN, PROTON, RENAULT

Courroie Dentée AE TB380 Compatible Avec Dayco KTB380 - Mitsubishi/Proton GATES Timing Belt/Water Pump Kit for Proton Savvy 1.2 Oct 2005 to Oct 2012 Timing Belt fits PROTON 1.5 1.5 88 to 91 QH MD113564 Genuine Quality Guara nteed

GATES Timing Belt Kit To Suit Proton Persona 316 GLXi Petrol

Dayco Timing Belt T1353 fits MITSUBISHI/ PROTON 94904

ZAHNRIEMEN STEUERRIEMEN BOSCH 1 987 949 064 P NEU OE QUALITÄT

New V-Ribbed Belt for ROVER PROTON MG LAND ROVER:200 Coupe,400 Tourer, CDU 2160

Brand New DAYCO Timing Belt to fit Proton Wira 2005-2009

Brand New DAYCO Timing Belt to fit Proton Wira 1996-2000

Timing Belt fits PROTON COMPACT C9 1.6 97 to 00 4G92 QH MD176386 Quality N ew

HI-FLOW THERMOSTAT TT281-180 SUIT LEXUS MITSUBISHI NISSAN PROTON TOYOTA New ListingENGINE TIMING BELT CAM BELT BOSCH 1 987 948 825 P FOR MITSUBISH I GALANT V,L 400

New ListingProton Satria Phase 1 94-05 Digital Display Clock

Correa Dentada AE TB379 Compatible Con Dayco KTB379 - Mitsubishi/Proton New DAYCO Timing Belt For Proton Satria 94494

1x Meyle 0500040763 Keilrippenriemen für MITSUBISHI NISSAN ROVER SUZUKI PR OTON

NEW V RIBBED BELT SET FOR RENAULT DACIA NISSAN PROTON KANGOO RAPID FC0 1 G ATES

Genuine GATES Drive Belt for Mitsubishi Galant 4G37 1.8 Litre (11/1988-10/1992)

V-RIBBED FAN BELT FOR PROTON SATRIA 5PK1113 OEM QUALITY

BOSCH ZAHNRIEMEN STEUERRIEMEN 1 987 949 064 P FÜR HYUNDAI PONY EXCEL, PONY ZAHNRIEMEN STEUERRIEMEN DAYCO 94195 I FÜR KIA JOICE 2.0 2L 102KW, 88KW

ZAHNRIEMEN STEUERRIEMEN CONTITECH CT738 P FÜR PROTON PERSONA 400, WIRA 1.3

L,1.5L
Balance Shaft Belt fits MITSUBISHI LANCER 1.8 2.0 2.0D 89 to 08 QH MD19229

```
5 New
```

1x Meyle 0500040763 V-Ribbed for Mitsubishi Nissan Rover Suzuki Proton ZAHNRIEMEN STEUERRIEMEN GATES 5550XS P FÜR PROTON IMPIAN 1.8 1.8L 93KW GATES Drive Belt Kit for Proton Savvy 1149cc 1.2 October 2005 to October 2012

New ListingProton Satria 94-05 Drivers Electric Window Regulator TIMING BELT FOR PROTON SATRIA 50092 PREMIUM QUALITY

Timing Belt fits MITSUBISHI GALANT Mk5 1.8 92 to 96 QH MD176387 MD186376 Q uality

VRIBBED BELT FOR PROTON PERSONA/400/Hatchback/300 WIRA/Sedan/Aeroback SATR TA

ENGINE TIMING BELT CAM BELT CONTITECH CT1008 A FOR PROTON IMPIAN 1.6 1.6L 76KW

New ListingPROTON GEN-2 MK1 2004-2014 STEERING PUMP 1.6 PETROL

Proton Jumbuck Persona Gti Satria Engine Mount Slotted Insert Set Upgrade 4G93

New ListingExhaust Front / Down Pipe + Fitting Kit fits PROTON WIRA 1.5 Fr ont 94 to 97 4G15

New ListingIGNITION DISTRIBUTOR CAP BLUE PRINT ADC414217 P FOR PROTON WIR A,PERSONA 400

New ListingPROTON GEN-2 MK1 2004-2014 WIPER LINKAGE PW 851713 Timing Belt fits CHEVROLET MATIZ M2 1.0 2005 on QH D96610029 96610029 Qual

ZAHNRIEMEN STEUERRIEMEN DAYCO 94216 I NEU OE QUALITÄT
GOODYEA TIMING BELT FOR HYUNDAI MITSUBISHI PROTON F1038H 94216 CT738
KEILRIPPENRIEMEN FÜR FIAT MITSUBISHI PROTON GATES 5PK1083
TIMING BELT FOR PROTON WIRA 50117 PREMIUM QUALITY
Distributor New Proton Persona Wira T2T58272 MD328420
Brand New DAYCO Timing Belt to fit Proton S16 2009-2022
ENGINE TIMING BELT CAM BELT GATES 5283XS P NEW OE REPLACEMENT
5 SPARCO - RACING SPORT MUDFLAPS

1000B334 FULL GASKET KIT MITSUBISHI 4B11/12 FOR LANCER OUTLANDER 2.0 LTR

In [77]:

```
soup_list = soup.findAll("li", attrs={"class":"s-item s-item__pl-on-bottom"})
for items in range(1, len(soup_list)):
    print(soup_list[items].find("div", attrs={"class":"s-item__title"}).text)
    print(soup_list[items].find("span", attrs={"class":"s-item__price"}).text)
    print()
```

Proton Saga Mitsuboshi CPK865 Original Fan Belt Brand New

4D68 For MITSUBISHI GALANT OR PROTON PERSONA 400 Engine Rebuild Kits Au to Engine RM 410.74

Tail Lamp Proton Perdana V6 RH RM 250.00

New ListingProton Satria Phase 1 94-05 Drivers Manual Door Mirror RM 177.72

New ListingProton Satria 94-05 Passenger Electric Window Regulator RM 201.76

5PK865 GATES V-Ribbed Belt for BMW,BYD,FERRARI,MITSUBISHI,PROTON,TOYOT A,ZHONGHUA RM 203.89

```
In [78]:
```

Cheapest Item is: RM 18.0

In [51]:

```
import re
input_value="RM 1,000.00"

result = re.sub(r"RM ","",input_value)
print(result)
```

1,000.00

In [52]:

```
import re
input_value="RM 1,000.00"

result = re.sub(r'[^0-9]', '', input_value)

print(result)
```

100000

In [64]:

```
import re
input_value="RM 1,000.00"

result = re.sub(r'[^0-9.]', '', input_value)

print(result)
```

```
In [65]:
# Exercise
# Find the Cheapest Item
# Use regex to remove the RM Suffix
import re
soup_list = soup.findAll("li", attrs={"class":"sresult lvresult clearfix li shic"})
cheapest = []
for items in range(len(soup list)):
    cheapest.append(float(re.sub(r"[^0-9.]","",soup_list[items].find("span", attrs={"cla
print(cheapest)
print("The Cheapest is: ", min(cheapest))
[108.0, 1912.2, 2291.3, 2874.54, 829.04, 2395.45, 624.9, 2353.79, 624.9]
The Cheapest is: 108.0
In [66]:
cheapest = [1,2,3,4,5]
min(cheapest)
Out[66]:
In [67]:
soup_list = soup.findAll("li", attrs={"class":"sresult lvresult clearfix li"})
for items in range(len(soup_list)):
    print(soup_list[items].find("h3", attrs={"class":"lvtitle"}).text)
PROTON PERSONA IGNITION/DOOR/BOOT KEY SET
AVS Racing Cam Gear Timing Belt 4G93 4G93T GSR Proton GTI Dohc
Racing Camshaft 270/260 Cam Gear 4G91 4G92 4G93 4G93T Proton GTI
Power Steering Pump For Proton Saga S16 Persona Gen 2 CamPro 1.3 1.6 (PW81
1427)
Power Enterprise Racing Timing Proton Jumbuck 4G13 4G15 12V 1991-1996
```

```
In [76]:
```

```
soup_list = soup.findAll("li", attrs={"class":"sresult lvresult clearfix li"})

for items in range(len(soup_list)):
    print(soup_list[items].find("h3", attrs={"class":"lvtitle"}).text)
    print(soup_list[items].find("span", attrs={"class":"bold"}).text)
    print()
```

Exercise

Store the results obtained into a Dataframe and save it as CSV file

In [2]:

```
# 1) Column 1 is "Product Name" 2) Column 2 is "Product Price"
import csv
import requests
from bs4 import BeautifulSoup
html = requests.get("https://www.ebay.com.my/sch/Car-Truck-Parts/6030/i.html?_from=R40&_
bsObj = BeautifulSoup(html.content, 'html.parser')
soup_list = bsObj.findAll("li", attrs={"class": "s-item s-item__pl-on-bottom"})
csvFile = open("proton.csv", 'w', encoding='utf8', newline='')
writer = csv.writer(csvFile)
writer.writerow(["Product Name", "Product Price"])
try:
    for item in soup_list:
        product_name = item.find("div", attrs={"class": "s-item__title"}).text
        product_price = item.find("span", attrs={"class": "s-item__price"}).text
        writer.writerow([product_name, product_price])
finally:
    csvFile.close()
```

In []: