Use of API's to extract zillow data from the webhttps://www.zillow.com/howto/api/APIOverview.html - (Needs a Zillow account)

```
In [1]: import xml.etree.cElementTree as ET
```

```
In [12]:  import requests
          import pandas as pd
          from lxml import html
          from lxml import etree
          import pandas as pd
          import numpy as np


          #Remember to insert own Zillow ID
          r = requests.get('http://www.zillow.com/webservice/GetRegionChildre
          n.htm?zws-id=<"Insert_Zillow_ID">&state=wa&city=seattle&childtype=n
          eighborhood')

          r.content
```

Out[12]: b'<?xml version="1.0" encoding="utf-8"?><RegionChildren:regionchildren xsi:schemaLocation="http://www.zillow.com/static/xsd/RegionChildren.xsd https://www.zillowstatic.com/vstatic/80d5e73/static/xsd/RegionChildren.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:RegionChildren="http://www.zillow.com/static/xsd/RegionChildren.xsd"><request><state>wa</state><city>seattle</city><childtype>neighborhood</childtype></request><message><text>Request successfully processed</text><code>0</code></message><response><region><id>16037</id><latitude>47.614848</latitude><longitude>-122.33607</longitude></region><subregiontype>neighborhood</subregiontype><list><count>102</count><region><id>250206</id><name>Capitol Hill</name><zindex currency="USD">415600</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Capitol-Hill/r_250206/</url><latitude>47.62622</latitude><longitude>-122.315979</longitude></region><region><id>272001</id><name>University District</name><zindex currency="USD">514200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/University-District/r_272001/</url><latitude>47.66073</latitude><longitude>-122.305045</longitude></region><region><id>271990</id><name>Magnolia</name><zindex currency="USD">662000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Magnolia/r_271990/</url><latitude>47.650943</latitude><longitude>-122.409136</longitude></region><region><id>250788</id><name>Greenwood</name><zindex currency="USD">421400</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Greenwood/r_250788/</url><latitude>47.694211</latitude><longitude>-122.355289</longitude></region><region><id>252248</id><name>Wallingford</name><zindex currency="USD">608500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Wallingford/r_252248/</url><latitude>47.658763</latitude><longitude>-122.334464</longitude></region><region><id>250692</id><name>Fremont</name><zindex currency="USD">505400</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Fremont/r_250692/</url><latitude>47.656187</latitude><longitude>-122.352184</longitude></region><region><id>250050</id><name>Beacon Hill</name><zindex currency="USD">361900</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Beacon-Hill/r_250050/</url><latitude>47.556114</latitude><longitude>-122.302828</longitude></region><region><id>344019</id><name>Admiral</name><zindex currency="USD">530100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Admiral/r_344019/</url><latitude>47.581622</latitude><longitude>-122.387362</longitude></region><region><id>271932</id><name>North Beacon Hill</name><zindex currency="USD">400900</zindex><url>http://www.zillow.com/local-info/WA-Seattle/North-Beacon-Hill/r_271932/</url><latitude>47.578054</latitude><longitude>-122.308873</longitude></region><region><id>271869</id><name>First Hill</name><zindex currency="USD">296000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/First-Hill/r_271869/</url><latitude>47.60819</latitude><longitude>-122.323829</longitude></region><region><id>251709</id><name>Ravenna</name><zindex currency="USD">573300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Ravenna/r_251709/</url><latitude>47.675777</latitude><longitude>-122.301115</longitude></region><region><id>344000</id><name>Maple Leaf</name><zindex currency="USD">468500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Maple-Leaf/r_344000/</ur

l><latitude>47.695035</latitude><longitude>-122.316628</longitude></region><region><id>271921</id><name>Minor</name><zindex currency="USD">450500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Minor/r_271921/</url><latitude>47.609068</latitude><longitude>-122.309629</longitude></region><region><id>271942</id><name>North Queen Anne</name><zindex currency="USD">658000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/North-Queen-Anne/r_271942/</url><latitude>47.649291</latitude><longitude>-122.36301</longitude></region><region><id>271808</id><name>Belltown</name><zindex currency="USD">376700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Belltown/r_271808/</url><latitude>47.614592</latitude><longitude>-122.348464</longitude></region><region><id>271961</id><name>Phinney Ridge</name><zindex currency="USD">586600</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Phinney-Ridge/r_271961/</url><latitude>47.672704</latitude><longitude>-122.355277</longitude></region><region><id>250017</id><name>Ballard</name><zindex currency="USD">397200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Ballard/r_250017/</url><latitude>47.668328</latitude><longitude>-122.387233</longitude></region><region><id>250780</id><name>Green Lake</name><zindex currency="USD">573500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Green-Lake/r_250780/</url><latitude>47.679959</latitude><longitude>-122.333709</longitude></region><region><id>271814</id><name>Bitter Lake</name><zindex currency="USD">363500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Bitter-Lake/r_271814/</url><latitude>47.719625</latitude><longitude>-122.35012</longitude></region><region><id>250801</id><name>Haller Lake</name><zindex currency="USD">368700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Haller-Lake/r_250801/</url><latitude>47.719604</latitude><longitude>-122.334753</longitude></region><region><id>271839</id><name>Columbia City</name><zindex currency="USD">379000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Columbia-City/r_271839/</url><latitude>47.5648</latitude><longitude>-122.286003</longitude></region><region><id>271819</id><name>Broadview</name><zindex currency="USD">518100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Broadview/r_271819/</url><latitude>47.719649</latitude><longitude>-122.368864</longitude></region><region><id>344008</id><name>West Woodland</name><zindex currency="USD">485800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/West-Woodland/r_344008/</url><latitude>47.666069</latitude><longitude>-122.368621</longitude></region><region><id>271957</id><name>Olympic Hills</name><zindex currency="USD">365200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Olympic-Hills/r_271957/</url><latitude>47.726604</latitude><longitude>-122.302454</longitude></region><region><id>250146</id><name>Brighton</name><zindex currency="USD">324700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Brighton/r_250146/</url><latitude>47.538786</latitude><longitude>-122.275961</longitude></region><region><id>271856</id><name>East Queen Anne</name><zindex currency="USD">667300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/East-Queen-Anne/r_271856/</url><latitude>47.637701</latitude><longitude>-122.350191</longitude></region><region><id>251170</id><name>Loyal Heights</name><zindex currency="USD">522500</zi

ndex><url>http://www.zillow.com/local-info/WA-Seattle/Loyal-Heights/r_251170/</url><latitude>47.683235</latitude><longitude>-122.384852</longitude></region><region><id>344033</id><name>High Point</name><zindex currency="USD">322800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/High-Point/r_344033/</url><latitude>47.543744</latitude><longitude>-122.368502</longitude></region><region><id>271987</id><name>South Lake Union</name><url>http://www.zillow.com/local-info/WA-Seattle/South-Lake-Union/r_271987/</url><latitude>47.62908</latitude><longitude>-122.33685</longitude></region><region><region><id>344029</id><name>Highland Park</name><zindex currency="USD">287200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Highland-Park/r_344029/</url><latitude>47.527126</latitude><longitude>-122.341404</longitude></region><region><id>344001</id><name>Wedgwood</name><zindex currency="USD">523700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Wedgwood/r_344001/</url><latitude>47.690136</latitude><longitude>-122.293779</longitude></region><region><id>271849</id><name>Downtown</name><zindex currency="USD">563000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Downtown/r_271849/</url><latitude>47.607346</latitude><longitude>-122.335089</longitude></region><region><id>343999</id><name>North College Park</name><zindex currency="USD">388200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/North-College-Park/r_343999/</url><latitude>47.699483</latitude><longitude>-122.336865</longitude></region><region><id>272018</id><name>West Queen Anne</name><zindex currency="USD">703100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/West-Queen-Anne/r_272018/</url><latitude>47.633342</latitude><longitude>-122.366405</longitude></region><region><id>344020</id><name>Genesee</name><zindex currency="USD">458300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Genesee/r_344020/</url><latitude>47.564809</latitude><longitude>-122.38585</longitude></region><region><id>344022</id><name>Gatewood</name><zindex currency="USD">446800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Gatewood/r_344022/</url><latitude>47.537448</latitude><longitude>-122.387812</longitude></region><region><id>250478</id><name>Dunlap</name><zindex currency="USD">277100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Dunlap/r_250478/</url><latitude>47.525357</latitude><longitude>-122.270274</longitude></region><region><id>344031</id><name>South Delridge</name><zindex currency="USD">268000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/South-Delridge/r_344031/</url><latitude>47.52674</latitude><longitude>-122.361155</longitude></region><region><id>343997</id><name>Alki</name><zindex currency="USD">568600</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Alki/r_343997/</url><latitude>47.576915</latitude><longitude>-122.401607</longitude></region><region><id>343993</id><name>Pinehurst</name><zindex currency="USD">365100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Pinehurst/r_343993/</url><latitude>47.723129</latitude><longitude>-122.320343</longitude></region><region><id>271906</id><name>Lower Queen Anne</name><zindex currency="USD">449200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Lower-Queen-Anne/r_271906/</url><latitude>47.628861</latitude><longitude>-122.354041</longitude></region><region><id>271831</id><name>Ce

dar Park</name><zindex currency="USD">432200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Cedar-Park/r_271831/</url><latitude>47.724628</latitude><longitude>-122.287479</longitude></region><region><id>344010</id><name>Uptown</name><zindex currency="USD">314200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Uptown/r_344010/</url><latitude>47.622282</latitude><longitude>-122.354226</longitude></region><region><id>344021</id><name>Fairmount Park</name><zindex currency="USD">424900</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Fairmount-Park/r_344021/</url><latitude>47.558159</latitude><longitude>-122.378924</longitude></region><region><id>344028</id><name>Mt. Baker</name><zindex currency="USD">665200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Mt.-Baker/r_344028/</url><latitude>47.577408</latitude><longitude>-122.288815</longitude></region><region><id>252336</id><name>Whittier Heights</name><zindex currency="USD">524800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Whittier-Heights/r_252336/</url><latitude>47.683314</latitude><longitude>-122.371424</longitude></region><region><id>272005</id><name>Victory Heights</name><zindex currency="USD">422200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Victory-Heights/r_272005/</url><latitude>47.709842</latitude><longitude>-122.303948</longitude></region><region><id>251704</id><name>Rainier Beach</name><zindex currency="USD">296000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Rainier-Beach/r_251704/</url><latitude>47.511649</latitude><longitude>-122.257974</longitude></region><region><id>252056</id><name>Sunset Hill</name><zindex currency="USD">612800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Sunset-Hill/r_252056/</url><latitude>47.682099</latitude><longitude>-122.402466</longitude></region><region><id>344003</id><name>Bryant</name><zindex currency="USD">569300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Bryant/r_344003/</url><latitude>47.672037</latitude><longitude>-122.286168</longitude></region><region><id>271913</id><name>Matthews Beach</name><zindex currency="USD">556700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Matthews-Beach/r_271913/</url><latitude>47.703815</latitude><longitude>-122.279031</longitude></region><region><id>344030</id><name>Roxhill</name><zindex currency="USD">324300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Roxhill/r_344030/</url><latitude>47.527392</latitude><longitude>-122.370661</longitude></region><region><id>343994</id><name>South Beacon Hill</name><zindex currency="USD">319100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/South-Beacon-Hill/r_343994/</url><latitude>47.524379</latitude><longitude>-122.289554</longitude></region><region><id>344024</id><name>Arbor Heights</name><zindex currency="USD">385500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Arbor-Heights/r_344024/</url><latitude>47.506711</latitude><longitude>-122.381062</longitude></region><region><id>344009</id><name>North Beach</name><zindex currency="USD">635800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/North-Beach/r_344009/</url><latitude>47.700841</latitude><longitude>-122.381738</longitude></region><region><id>250150</id><name>Broadway</name><url>http://www.zillow.com/local-info/WA-Seattle/Broadway/r_250150/</url><latitude>47.62622</latitude><longitude>-122.321

452</longitude></region><region><id>250939</id><name>Interbay</name><url>http://www.zillow.com/local-info/WA-Seattle/Interbay/r_250939/</url><latitude>47.64247</latitude><longitude>-122.379722</longitude></region><region><id>344023</id><name>Fauntleroy</name><zindex currency="USD">535900</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Fauntleroy/r_344023/</url><latitude>47.52047</latitude><longitude>-122.389647</longitude></region><region><id>344002</id><name>Roosevelt</name><zindex currency="USD">532800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Roosevelt/r_344002/</url><latitude>47.680657</latitude><longitude>-122.313832</longitude></region><region><id>271901</id><name>Leschi</name><zindex currency="USD">624600</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Leschi/r_271901/</url><latitude>47.599748</latitude><longitude>-122.290462</longitude></region><region><id>56654</id><name>Seaview</name><zindex currency="USD">470700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Seaview/r_56654/</url><latitude>47.550758</latitude><longitude>-122.396108</longitude></region><region><id>344012</id><name>Madison Valley</name><zindex currency="USD">571800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Madison-Valley/r_344012/</url><latitude>47.626805</latitude><longitude>-122.294018</longitude></region><region><id>343998</id><name>Northgate</name><zindex currency="USD">234300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Northgate/r_343998/</url><latitude>47.707712</latitude><longitude>-122.321105</longitude></region><region><id>250889</id><name>Holly Park</name><zindex currency="USD">305500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Holly-Park/r_250889/</url><latitude>47.53795</latitude><longitude>-122.288786</longitude></region><region><id>251187</id><name>Madrona</name><zindex currency="USD">695800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Madrona/r_251187/</url><latitude>47.61269</latitude><longitude>-122.288998</longitude></region><region><id>251100</id><name>Laurelhurst</name><zindex currency="USD">1070400</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Laurelhurst/r_251100/</url><latitude>47.658207</latitude><longitude>-122.278598</longitude></region><region><id>344014</id><name>Mann</name><zindex currency="USD">468300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Mann/r_344014/</url><latitude>47.610285</latitude><longitude>-122.299434</longitude></region><region><id>250383</id><name>Crown Hill</name><zindex currency="USD">422100</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Crown-Hill/r_250383/</url><latitude>47.697866</latitude><longitude>-122.374616</longitude></region><region><id>343996</id><name>View Ridge</name><zindex currency="USD">656000</zindex><url>http://www.zillow.com/local-info/WA-Seattle/View-Ridge/r_343996/</url><latitude>47.683937</latitude><longitude>-122.27431</longitude></region><region><id>272022</id><name>Westlake</name><zindex currency="USD">406900</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Westlake/r_272022/</url><latitude>47.636611</latitude><longitude>-122.342938</longitude></region><region><id>344025</id><name>Hillman City</name><zindex currency="USD">344500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Hillman-City/r_344025/</url><latitude>47.549944</latitude><longitude>-122.28101

9</longitude></region><region><id>344032</id><name>North Delridge</name><zindex currency="USD">325500</zindex><url>http://www.zillow.com/local-info/WA-Seattle/North-Delridge/r_344032/</url><latitude>47.562584</latitude><longitude>-122.363922</longitude></region><region><id>344027</id><name>Rainier View</name><zindex currency="USD">243200</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Rainier-View/r_344027/</url><latitude>47.500983</latitude><longitude>-122.256076</longitude></region><region><id>344015</id><name>Judkins Park</name><zindex currency="USD">388900</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Judkins-Park/r_344015/</url><latitude>47.596023</latitude><longitude>-122.301549</longitude></region><region><id>271857</id><name>Eastlake</name><zindex currency="USD">428400</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Eastlake/r_271857/</url><latitude>47.643806</latitude><longitude>-122.326777</longitude></region><region><id>271915</id><name>Meadowbrook</name><zindex currency="USD">439700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Meadowbrook/r_271915/</url><latitude>47.7065</latitude><longitude>-122.298032</longitude></region><region><id>271923</id><name>Montlake</name><zindex currency="USD">829800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Montlake/r_271923/</url><latitude>47.64087</latitude><longitude>-122.308456</longitude></region><region><id>251971</id><name>South Park</name><zindex currency="USD">253300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/South-Park/r_251971/</url><latitude>47.52986</latitude><longitude>-122.321972</longitude></region><region><id>343995</id><name>Denny Triangle</name><zindex currency="USD">474400</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Denny-Triangle/r_343995/</url><latitude>47.615618</latitude><longitude>-122.337897</longitude></region><region><id>344034</id><name>Riverview</name><zindex currency="USD">325300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Riverview/r_344034/</url><latitude>47.546367</latitude><longitude>-122.35274</longitude></region><region><id>271893</id><name>International District</name><url>http://www.zillow.com/local-info/WA-Seattle/International-District/r_271893/</url><latitude>47.596945</latitude><longitude>-122.324714</longitude></region><region><id>271900</id><name>Lawton Park</name><url>http://www.zillow.com/local-info/WA-Seattle/Lawton-Park/r_271900/</url><latitude>47.659379</latitude><longitude>-122.409136</longitude></region><region><id>251076</id><name>Lakewood</name><zindex currency="USD">493700</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Lakewood/r_251076/</url><latitude>47.562223</latitude><longitude>-122.269429</longitude></region><region><id>271892</id><name>Industrial District</name><url>http://www.zillow.com/local-info/WA-Seattle/Industrial-District/r_271892/</url><latitude>47.566784</latitude><longitude>-122.35063</longitude></region><region><id>271815</id><name>Briarcliff</name><url>http://www.zillow.com/local-info/WA-Seattle/Briarcliff/r_271815/</url><latitude>47.642578</latitude><longitude>-122.408081</longitude></region><region><id>251186</id><name>Madison Park</name><zindex currency="USD">988600</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Madison-Park/r_251186/</url><latitude>47.632468</latitude><longitude>-122.284761</longitude></region><region><id>271977</i

d><name>Seward Park</name><zindex currency="USD">590400</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Seward-Park/r_271977/</url><latitude>47.547011</latitude><longitude>-122.259808</longitude></region><region><id>344018</id><name>Waterfront</name><url>http://www.zillow.com/local-info/WA-Seattle/Waterfront/r_344018/</url><latitude>47.605507</latitude><longitude>-122.34804</longitude></region><region><id>250714</id><name>Georgetown</name><url>http://www.zillow.com/local-info/WA-Seattle/Georgetown/r_250714/</url><latitude>47.540345</latitude><longitude>-122.316845</longitude></region><region><id>250149</id><name>Broadmoor</name><url>http://www.zillow.com/local-info/WA-Seattle/Broadmoor/r_250149/</url><latitude>47.637395</latitude><longitude>-122.290642</longitude></region><region><id>344004</id><name>Hawthorne Hills</name><zindex currency="USD">704300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Hawthorne-Hills/r_344004/</url><latitude>47.671893</latitude><longitude>-122.271548</longitude></region><region><id>272026</id><name>Windermere</name><zindex currency="USD">967300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Windermere/r_272026/</url><latitude>47.670199</latitude><longitude>-122.262975</longitude></region><region><id>344017</id><name>Little Saigon</name><url>http://www.zillow.com/local-info/WA-Seattle/Little-Saigon/r_344017/</url><latitude>47.595204</latitude><longitude>-122.314853</longitude></region><region><id>271964</id><name>Portage Bay</name><zindex currency="USD">778300</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Portage-Bay/r_271964/</url><latitude>47.647441</latitude><longitude>-122.318551</longitude></region><region><id>271804</id><name>Atlantic</name><url>http://www.zillow.com/local-info/WA-Seattle/Atlantic/r_271804/</url><latitude>47.583337</latitude><longitude>-122.301715</longitude></region><region><id>252396</id><name>Yesler Terrace</name><url>http://www.zillow.com/local-info/WA-Seattle/Yesler-Terrace/r_252396/</url><latitude>47.602124</latitude><longitude>-122.320733</longitude></region><region><id>344007</id><name>Woodland</name><url>http://www.zillow.com/local-info/WA-Seattle/Woodland/r_344007/</url><latitude>47.670466</latitude><longitude>-122.347197</longitude></region><region><id>344016</id><name>Jackson Place</name><zindex currency="USD">375800</zindex><url>http://www.zillow.com/local-info/WA-Seattle/Jackson-Place/r_344016/</url><latitude>47.594793</latitude><longitude>-122.3102</longitude></region><region><id>271886</id><name>Harbor Island</name><url>http://www.zillow.com/local-info/WA-Seattle/Harbor-Island/r_271886/</url><latitude>47.579899</latitude><longitude>-122.352042</longitude></region><region><id>271975</id><name>Sand Point</name><url>http://www.zillow.com/local-info/WA-Seattle/Sand-Point/r_271975/</url><latitude>47.681855</latitude><longitude>-122.25644</longitude></region><region><id>344011</id><name>Denny - Blaine</name><url>http://www.zillow.com/local-info/WA-Seattle/Denny----Blaine/r_344011/</url><latitude>47.617122</latitude><longitude>-122.284957</longitude></region><region><id>271963</id><name>Pioneer Square</name><url>http://www.zillow.com/local-info/WA-Seattle/Pioneer-Square/r_271963/</url><latitude>47.597829</latitude><longitude>-122.332927</longitude></region></list></response></RegionChildren:regionchildren><!-- H:045 T:369ms S:12579 R:Tue May 14 1

```
5:46:18 PDT 2019  B:5.0.60174.9-hotfix_2019-05-07.cc22a32~hotfix-
platform-for-2019-05-07.4dbc25d -->'
```

In [13]:
```python
import requests
import xml.etree.ElementTree as ET

response= requests.get('http://www.zillow.com/webservice/GetRegionC
hildren.htm?zws-id=X1-ZWz18afrvp9tzf_6cyom&state=wa&city=seattle&ch
ildtype=neighborhood')
tree = ET.fromstring(response.content)

#x = ET.parse(tree)
```

In [14]:
```python
#Trying to use pretty print
# import lxml.etree as etree

# x = etree.parse(response.content)
# print(etree.tostring(x, pretty_print=True))
```

```
In [15]:  #Display content with 'request.get'
          roc = requests.get('http://www.zillow.com/webservice/GetRegionChild
          ren.htm?zws-id=<"Insert_Zillow_ID">&state=ny&city=rochester&childty
          pe=neighborhood')
          print(type(roc.content))
          print(roc.content)
```

<class 'bytes'>

b'<?xml version="1.0" encoding="utf-8"?><RegionChildren:regionchildren xsi:schemaLocation="http://www.zillow.com/static/xsd/RegionChildren.xsd https://www.zillowstatic.com/vstatic/80d5e73/static/xsd/RegionChildren.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:RegionChildren="http://www.zillow.com/static/xsd/RegionChildren.xsd"><request><state>ny</state><city>rochester</city><childtype>neighborhood</childtype></request><message><text>Request successfully processed</text><code>0</code></message><response><region><id>13550</id><latitude>43.185453</latitude><longitude>-77.617135</longitude></region><subregiontype>neighborhood</subregiontype><list><count>36</count><region><id>343902</id><name>19th Ward</name><zindex currency="USD">62500</zindex><url>http://www.zillow.com/local-info/NY-Rochester/19th-Ward/r_343902/</url><latitude>43.136721</latitude><longitude>-77.652121</longitude></region><region><id>343877</id><name>Maplewood</name><zindex currency="USD">62700</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Maplewood/r_343877/</url><latitude>43.198648</latitude><longitude>-77.660833</longitude></region><region><id>343880</id><name>Lyell-Otis</name><zindex currency="USD">48600</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Lyell--Otis/r_343880/</url><latitude>43.172293</latitude><longitude>-77.65859</longitude></region><region><id>343881</id><name>Beechwood</name><zindex currency="USD">50400</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Beechwood/r_343881/</url><latitude>43.162424</latitude><longitude>-77.572334</longitude></region><region><id>343882</id><name>Culver-Winton</name><zindex currency="USD">90900</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Culver--Winton/r_343882/</url><latitude>43.159159</latitude><longitude>-77.556772</longitude></region><region><id>343910</id><name>Edgerton</name><zindex currency="USD">40400</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Edgerton/r_343910/</url><latitude>43.172816</latitude><longitude>-77.634774</longitude></region><region><id>193771</id><name>Charlotte</name><zindex currency="USD">86000</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Charlotte/r_193771/</url><latitude>43.236641</latitude><longitude>-77.621504</longitude></region><region><id>343908</id><name>Park Avenue</name><zindex currency="USD">223000</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Park-Avenue/r_343908/</url><latitude>43.147289</latitude><longitude>-77.576488</longitude></region><region><id>343905</id><name>Upper Falls</name><zindex currency="USD">39900</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Upper-Falls/r_343905/</url><latitude>43.168088</latitude><longitude>-77.610396</longitude></region><region><id>343907</id><name>East Avenue</name><url>http://www.zillow.com/local-info/NY-Rochester/East-Avenue/r_343907/</url><latitude>43.152456</latitude><longitude>-77.576345</longitude></region><region><id>343879</id><name>Highland</name><zindex currency="USD">134300</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Highland/r_343879/</url><latitude>43.120154</latitude><longitude>-77.61558</longitude></region><region><id>343886</id><name>Northland-Lyceum</name><zindex currency="USD">66700</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Northland--Lyceu

m/r_343886/</url><latitude>43.199522</latitude><longitude>-77.565576</longitude></region><region><id>343904</id><name>N. Marketview Heights</name><zindex currency="USD">39900</zindex><url>http://www.zillow.com/local-info/NY-Rochester/N.-Marketview-Heights/r_343904/</url><latitude>43.170794</latitude><longitude>-77.586258</longitude></region><region><id>343884</id><name>Genesee - Jefferson</name><zindex currency="USD">44800</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Genesee----Jefferson/r_343884/</url><latitude>43.138833</latitude><longitude>-77.631007</longitude></region><region><region><id>343888</id><name>Central Business District</name><url>http://www.zillow.com/local-info/NY-Rochester/Central-Business-District/r_343888/</url><latitude>43.156638</latitude><longitude>-77.607915</longitude></region><region><id>343911</id><name>Strong</name><url>http://www.zillow.com/local-info/NY-Rochester/Strong/r_343911/</url><latitude>43.132409</latitude><longitude>-77.619949</longitude></region><region><id>343894</id><name>Ellwanger-Barry</name><zindex currency="USD">117500</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Ellwanger--Barry/r_343894/</url><latitude>43.136337</latitude><longitude>-77.600833</longitude></region><region><id>343891</id><name>Homestead Heights</name><zindex currency="USD">65200</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Homestead-Heights/r_343891/</url><latitude>43.173718</latitude><longitude>-77.567794</longitude></region><region><id>343912</id><name>South Wedge</name><zindex currency="USD">93500</zindex><url>http://www.zillow.com/local-info/NY-Rochester/South-Wedge/r_343912/</url><latitude>43.144733</latitude><longitude>-77.605988</longitude></region><region><region><id>343883</id><name>Plymouth - Exchange</name><zindex currency="USD">48400</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Plymouth----Exchange/r_343883/</url><latitude>43.138836</latitude><longitude>-77.625217</longitude></region><region><id>343906</id><name>S. Marketview Heights</name><url>http://www.zillow.com/local-info/NY-Rochester/S.-Marketview-Heights/r_343906/</url><latitude>43.167475</latitude><longitude>-77.59184</longitude></region><region><region><id>343900</id><name>Dutchtown</name><zindex currency="USD">37400</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Dutchtown/r_343900/</url><latitude>43.157309</latitude><longitude>-77.646364</longitude></region><region><id>343892</id><name>Browncroft</name><zindex currency="USD">130300</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Browncroft/r_343892/</url><latitude>43.157218</latitude><longitude>-77.544257</longitude></region><region><id>343878</id><name>Pearl-Meigs-Monroe</name><url>http://www.zillow.com/local-info/NY-Rochester/Pearl--Meigs--Monroe/r_343878/</url><latitude>43.147698</latitude><longitude>-77.596483</longitude></region><region><id>343899</id><name>Charles House Area Council</name><zindex currency="USD">36500</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Charles-House-Area-Council/r_343899/</url><latitude>43.158105</latitude><longitude>-77.631789</longitude></region><region><id>343896</id><name>Mayor\'s Heights</name><url>http://www.zillow.com/local-info/NY-Rochester/Mayor\'s-Heights/r_343896/</url><latitude>43.150162</latitude><longitude>-77.628004</longitude></region><region><region><id>343901</id><name>United Neighbors Together</name><zindex

currency="USD">51000</zindex><url>http://www.zillow.com/local-inf
o/NY-Rochester/United-Neighbors-Together/r_343901/</url><latitud
e>43.157023</latitude><longitude>-77.660903</longitude></region>
<region><id>343889</id><name>Corn Hill</name><url>http://www.zill
ow.com/local-info/NY-Rochester/Corn-Hill/r_343889/</url><latitud
e>43.148825</latitude><longitude>-77.615381</longitude></region>
<region><id>343893</id><name>Swillburg</name><zindex currency="US
D">90000</zindex><url>http://www.zillow.com/local-info/NY-Rochest
er/Swillburg/r_343893/</url><latitude>43.138548</latitude><longit
ude>-77.592158</longitude></region><region><id>343903</id><name>A
tlantic-University</name><url>http://www.zillow.com/local-info/N
Y-Rochester/Atlantic--University/r_343903/</url><latitude>43.1566
4</latitude><longitude>-77.582518</longitude></region><region><i
d>343885</id><name>Cobbs Hill</name><zindex currency="USD">18950
0</zindex><url>http://www.zillow.com/local-info/NY-Rochester/Cobb
s-Hill/r_343885/</url><latitude>43.141427</latitude><longitude>-7
7.562404</longitude></region><region><id>343898</id><name>Susan
B. Anthony</name><url>http://www.zillow.com/local-info/NY-Rochest
er/Susan-B.-Anthony/r_343898/</url><latitude>43.154784</latitude>
<longitude>-77.62453</longitude></region><region><id>343897</id>
<name>B.E.S.T</name><url>http://www.zillow.com/local-info/NY-Roch
ester/B.E.S.T/r_343897</url><latitude>43.15283</latitude><longitu
de>-77.633052</longitude></region><region><id>343909</id><name>Br
own Square</name><url>http://www.zillow.com/local-info/NY-Rochest
er/Brown-Square/r_343909/</url><latitude>43.160492</latitude><lon
gitude>-77.62369</longitude></region><region><id>343887</id><nam
e>Duran Eastman Park</name><url>http://www.zillow.com/local-inf
o/NY-Rochester/Duran-Eastman-Park/r_343887/</url><latitude>43.233
187</latitude><longitude>-77.567423</longitude></region><region>
<id>343895</id><name>Genesee Valley Park</name><url>http://www.zi
llow.com/local-info/NY-Rochester/Genesee-Valley-Park/r_343895/</u
rl><latitude>43.113635</latitude><longitude>-77.646395</longitud
e></region></list></response></RegionChildren:regionchildren><!--
H:035 T:125ms S:4423 R:Tue May 14 15:46:19 PDT 2019 B:5.0.601
74.9-hotfix_2019-05-07.cc22a32~hotfix-platform-for-2019-05-07.4db
c25d -->'

In [16]: #Create a dataframe from the data using Element Tree

```python
In [25]: tree = html.fromstring(roc.content)
         regions = tree.xpath('.//region')


         data = regions

         #Create list of dictionaries
         group_big = []

         for row_elements in data: # iterate over rows
             group = {'zip': 0,
                 'loc': '',
                 'price': 0,
                 'url': '',
                 'lat': 0,
                 'long': 0}

             #print(row_elements.text_content())
             #row = []
             for col_element in row_elements: # iterate over columns
                 #print(col_element)

                 if col_element.tag == 'id':
                     #print(col_element.tag)
                     group['zip']= col_element.text_content()

                 elif col_element.tag == 'name':
             #print(col_element.tag)
                     group['loc']= col_element.text_content()

                 elif col_element.tag == 'url':
                     group['url']= col_element.text_content()


                 elif col_element.tag == 'zindex':
                     #print(col_element.tag)
                     group['price est']= col_element.text_content()

                 elif col_element.tag == 'latitude':
                     #print(col_element.tag)
                     group['lat']= col_element.text_content()


                 elif col_element.tag == 'longitude':
                     #print(col_element.tag)
                     group['long']= col_element.text_content()




             group_big.append(group)
```

```
In [24]:  #Convert dictionary to dataframe
          df = pd.DataFrame(group_big)
          #Print first 5 lines of dataframe
          print(df.head)
```

```
<bound method NDFrame.head of             lat
loc         long  price price est  \
0   43.185453                                          -77.617135      0
NaN
1   43.136721                         19th Ward  -77.652121      0
62500
2   43.198648                        Maplewood  -77.660833      0
62700
3   43.172293                       Lyell-Otis   -77.65859      0
48600
4   43.162424                        Beechwood  -77.572334      0
50400
5   43.159159                    Culver-Winton  -77.556772      0
90900
6   43.172816                         Edgerton  -77.634774      0
40400
7   43.236641                        Charlotte  -77.621504      0
86000
8   43.147289                      Park Avenue  -77.576488      0    2
23000
9   43.168088                      Upper Falls  -77.610396      0
39900
10  43.152456                      East Avenue  -77.576345      0
NaN
11  43.120154                         Highland   -77.61558      0    1
34300
12  43.199522                 Northland-Lyceum  -77.565576      0
66700
13  43.170794          N. Marketview Heights  -77.586258      0
39900
14  43.138833           Genesee - Jefferson  -77.631007      0
44800
15  43.156638   Central Business District  -77.607915      0
NaN
16  43.132409                           Strong  -77.619949      0
NaN
17  43.136337                  Ellwanger-Barry  -77.600833      0    1
17500
18  43.173718               Homestead Heights  -77.567794      0
65200
19  43.144733                     South Wedge  -77.605988      0
93500
20  43.138836             Plymouth - Exchange  -77.625217      0
48400
21  43.167475          S. Marketview Heights   -77.59184      0
NaN
22  43.157309                        Dutchtown  -77.646364      0
37400
23  43.157218                       Browncroft  -77.544257      0    1
30300
24  43.147698             Pearl-Meigs-Monroe  -77.596483      0
NaN
25  43.158105   Charles House Area Council  -77.631789      0
```

```
       36500
26  43.150162            Mayor's Heights   -77.628004      0
NaN
27  43.157023  United Neighbors Together   -77.660903      0
51000
28  43.148825                  Corn Hill   -77.615381      0
NaN
29  43.138548                  Swillburg   -77.592158      0
90000
30   43.15664          Atlantic-University  -77.582518      0
NaN
31  43.141427                 Cobbs Hill   -77.562404      0    1
89500
32  43.154784           Susan B. Anthony    -77.62453      0
NaN
33   43.15283                     B.E.S.T   -77.633052      0
NaN
34  43.160492               Brown Square    -77.62369      0
NaN
35  43.233187          Duran Eastman Park   -77.567423      0
NaN
36  43.113635         Genesee Valley Park   -77.646395      0
NaN
```

```
                                                 url    zip
0                                                     13550
1   http://www.zillow.com/local-info/NY-Rochester/...  343902
2   http://www.zillow.com/local-info/NY-Rochester/...  343877
3   http://www.zillow.com/local-info/NY-Rochester/...  343880
4   http://www.zillow.com/local-info/NY-Rochester/...  343881
5   http://www.zillow.com/local-info/NY-Rochester/...  343882
6   http://www.zillow.com/local-info/NY-Rochester/...  343910
7   http://www.zillow.com/local-info/NY-Rochester/...  193771
8   http://www.zillow.com/local-info/NY-Rochester/...  343908
9   http://www.zillow.com/local-info/NY-Rochester/...  343905
10  http://www.zillow.com/local-info/NY-Rochester/...  343907
11  http://www.zillow.com/local-info/NY-Rochester/...  343879
12  http://www.zillow.com/local-info/NY-Rochester/...  343886
13  http://www.zillow.com/local-info/NY-Rochester/...  343904
14  http://www.zillow.com/local-info/NY-Rochester/...  343884
15  http://www.zillow.com/local-info/NY-Rochester/...  343888
16  http://www.zillow.com/local-info/NY-Rochester/...  343911
17  http://www.zillow.com/local-info/NY-Rochester/...  343894
18  http://www.zillow.com/local-info/NY-Rochester/...  343891
19  http://www.zillow.com/local-info/NY-Rochester/...  343912
20  http://www.zillow.com/local-info/NY-Rochester/...  343883
21  http://www.zillow.com/local-info/NY-Rochester/...  343906
22  http://www.zillow.com/local-info/NY-Rochester/...  343900
23  http://www.zillow.com/local-info/NY-Rochester/...  343892
24  http://www.zillow.com/local-info/NY-Rochester/...  343878
25  http://www.zillow.com/local-info/NY-Rochester/...  343899
26  http://www.zillow.com/local-info/NY-Rochester/...  343896
27  http://www.zillow.com/local-info/NY-Rochester/...  343901
```

```
28   http://www.zillow.com/local-info/NY-Rochester/...   343889
29   http://www.zillow.com/local-info/NY-Rochester/...   343893
30   http://www.zillow.com/local-info/NY-Rochester/...   343903
31   http://www.zillow.com/local-info/NY-Rochester/...   343885
32   http://www.zillow.com/local-info/NY-Rochester/...   343898
33   http://www.zillow.com/local-info/NY-Rochester/...   343897
34   http://www.zillow.com/local-info/NY-Rochester/...   343909
35   http://www.zillow.com/local-info/NY-Rochester/...   343887
36   http://www.zillow.com/local-info/NY-Rochester/...   343895  >
```

In [ ]:

```python
In [26]:  #Conversion to dataframe from list of dictionaries
          df = pd.concat([pd.Series(d) for d in group_big], axis=1).fillna('N
          an').T
          df
```

	lat	loc	long	price	price est	url	zip
0	43.185453		-77.617135	0	Nan		13550
1	43.136721	19th Ward	-77.652121	0	62500	http://www.zillow.com/local-info/NY-Rochester/...	343902
2	43.198648	Maplewood	-77.660833	0	62700	http://www.zillow.com/local-info/NY-Rochester/...	343877
3	43.172293	Lyell-Otis	-77.65859	0	48600	http://www.zillow.com/local-info/NY-Rochester/...	343880
4	43.162424	Beechwood	-77.572334	0	50400	http://www.zillow.com/local-info/NY-Rochester/...	343881
5	43.159159	Culver-Winton	-77.556772	0	90900	http://www.zillow.com/local-info/NY-Rochester/...	343882
6	43.172816	Edgerton	-77.634774	0	40400	http://www.zillow.com/local-info/NY-Rochester/...	343910
7	43.236641	Charlotte	-77.621504	0	86000	http://www.zillow.com/local-info/NY-Rochester/...	193771
8	43.147289	Park Avenue	-77.576488	0	223000	http://www.zillow.com/local-info/NY-Rochester/...	343908
9	43.168088	Upper Falls	-77.610396	0	39900	http://www.zillow.com/local-info/NY-Rochester/...	343905
10	43.152456	East Avenue	-77.576345	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343907
11	43.120154	Highland	-77.61558	0	134300	http://www.zillow.com/local-info/NY-Rochester/...	343879
12	43.199522	Northland-Lyceum	-77.565576	0	66700	http://www.zillow.com/local-info/NY-Rochester/...	343886
13	43.170794	N. Marketview Heights	-77.586258	0	39900	http://www.zillow.com/local-info/NY-Rochester/...	343904
14	43.138833	Genesee - Jefferson	-77.631007	0	44800	http://www.zillow.com/local-info/NY-Rochester/...	343884
15	43.156638	Central Business District	-77.607915	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343888
16	43.132409	Strong	-77.619949	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343911
17	43.136337	Ellwanger-Barry	-77.600833	0	117500	http://www.zillow.com/local-info/NY-Rochester/...	343894
18	43.173718	Homestead Heights	-77.567794	0	65200	http://www.zillow.com/local-info/NY-Rochester/...	343891
19	43.144733	South Wedge	-77.605988	0	93500	http://www.zillow.com/local-info/NY-Rochester/...	343912
20	43.138836	Plymouth - Exchange	-77.625217	0	48400	http://www.zillow.com/local-info/NY-Rochester/...	343883

21	43.167475	S. Marketview Heights	-77.59184	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343906
22	43.157309	Dutchtown	-77.646364	0	37400	http://www.zillow.com/local-info/NY-Rochester/...	343900
23	43.157218	Browncroft	-77.544257	0	130300	http://www.zillow.com/local-info/NY-Rochester/...	343892
24	43.147698	Pearl-Meigs-Monroe	-77.596483	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343878
25	43.158105	Charles House Area Council	-77.631789	0	36500	http://www.zillow.com/local-info/NY-Rochester/...	343899
26	43.150162	Mayor's Heights	-77.628004	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343896
27	43.157023	United Neighbors Together	-77.660903	0	51000	http://www.zillow.com/local-info/NY-Rochester/...	343901
28	43.148825	Corn Hill	-77.615381	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343889
29	43.138548	Swillburg	-77.592158	0	90000	http://www.zillow.com/local-info/NY-Rochester/...	343893
30	43.15664	Atlantic-University	-77.582518	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343903
31	43.141427	Cobbs Hill	-77.562404	0	189500	http://www.zillow.com/local-info/NY-Rochester/...	343885
32	43.154784	Susan B. Anthony	-77.62453	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343898
33	43.15283	B.E.S.T	-77.633052	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343897
34	43.160492	Brown Square	-77.62369	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343909
35	43.233187	Duran Eastman Park	-77.567423	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343887
36	43.113635	Genesee Valley Park	-77.646395	0	Nan	http://www.zillow.com/local-info/NY-Rochester/...	343895