

## DAILY ASSESSMENT FORMAT

Date:	03/06/2020	Name:	Prajwal Kamagethi Chakravarti P L
Course:	Python	USN:	4AL17EC073
Topic:	<ul style="list-style-type: none"> <li>Application 7: Scrape Real Estate Property Data from the Web</li> </ul>	Semester & Section:	6 & B
Github Repository:	<a href="https://github.com/alvas-education-foundation/Prajwal-Kamagethi.git">https://github.com/alvas-education-foundation/Prajwal-Kamagethi.git</a>		

## FORENOON SESSION DETAILS

Image of the session:

The image displays a Jupyter Notebook interface with two screenshots of a web scraping session. The top screenshot shows the initial code and the first output, which is a list of property details including a price of \$725,000. The bottom screenshot shows the same notebook with more code and a list of property details, including a price of \$725,000. The notebook is titled 'century21' and is running on a local host.

```

In [55]: import requests
         from bs4 import BeautifulSoup
         import pandas

In [21]: r = requests.get("http://www.pyclass.com/real-estate/rock-springs-wy/LWYROCKSPRINGS/", headers={'User-agent': 'Mozilla'})
         c = r.content

In [22]: soup = BeautifulSoup(c,"html.parser")
         print(soup.prettify())

<tr class="s">
  <a class="t" href="http://web.archive.org/web/20160127020422*/http://www.century21.com/real-estate/rock-springs-wy/LWYROCKSPRINGS/" title="See a list of every capture for this URL">
    12 captures
  </a>
  <div class="t" title="Timespan for captures of this URL">
    20 Nov 11 - 27 Jan 16
  </div>
  <td class="k">
    <a href="http://web.archive.org/web/19970415000000/http://www.century21.com/real-estate/rock-springs-wy/LWYROCKSPRINGS/" id="wm-graph-anchor">
      <div id="wm-ipp-sparkline" title="Explore captures for this URL">
        
      <div class="yt" style="display: none; width: 25px; height: 27px; left: 25px;">
      </div>
      <div class="mt" style="display: none; width: 2px; height: 27px; left: 32px;">
      </div>
    </td>
  </tr>

In [24]: all = soup.find_all("div",{"class":"propertyRow"})
         all[0].find_all("h4",{"class":"propPrice"})

Out[24]: [<h4 class="propPrice">

$725,000

]

```

The bottom screenshot shows the same notebook with more code and a list of property details, including a price of \$725,000. The notebook is titled 'century21' and is running on a local host.

```

In [24]: all = soup.find_all("div",{"class":"propertyRow"})
         all[0].find_all("h4",{"class":"propPrice"})

Out[24]: [<h4 class="propPrice">

$725,000

]

```

The notebook is titled 'century21' and is running on a local host. The course content sidebar on the right lists various topics, including 'Request Headers', 'Loading the Webpage in Python', 'Extracting "div" Tags', 'Extracting Addresses and Property Details', 'Extracting Elements without Unique Identifiers', 'Saving the Extracted Data in CSV Files', 'Crawling Through Webpages', 'Section 31: Application 9: Build a Web-based Financial Graph', 'Section 32: Application 10: Build a Data Collector Web App with PostgreSQL and Flask', 'Section 33: Application 11: Project Exercise on Building a Geocoder Web Service', 'Section 34: Legacy Exercises', and 'Section 35: Offers for my Other Python Courses'.

Report – Report can be typed or hand written for up to two pages.

Web scraping is used to collect large information from websites. But why does someone have to collect such large data from websites? To know about this, let's look at the applications of web scraping:

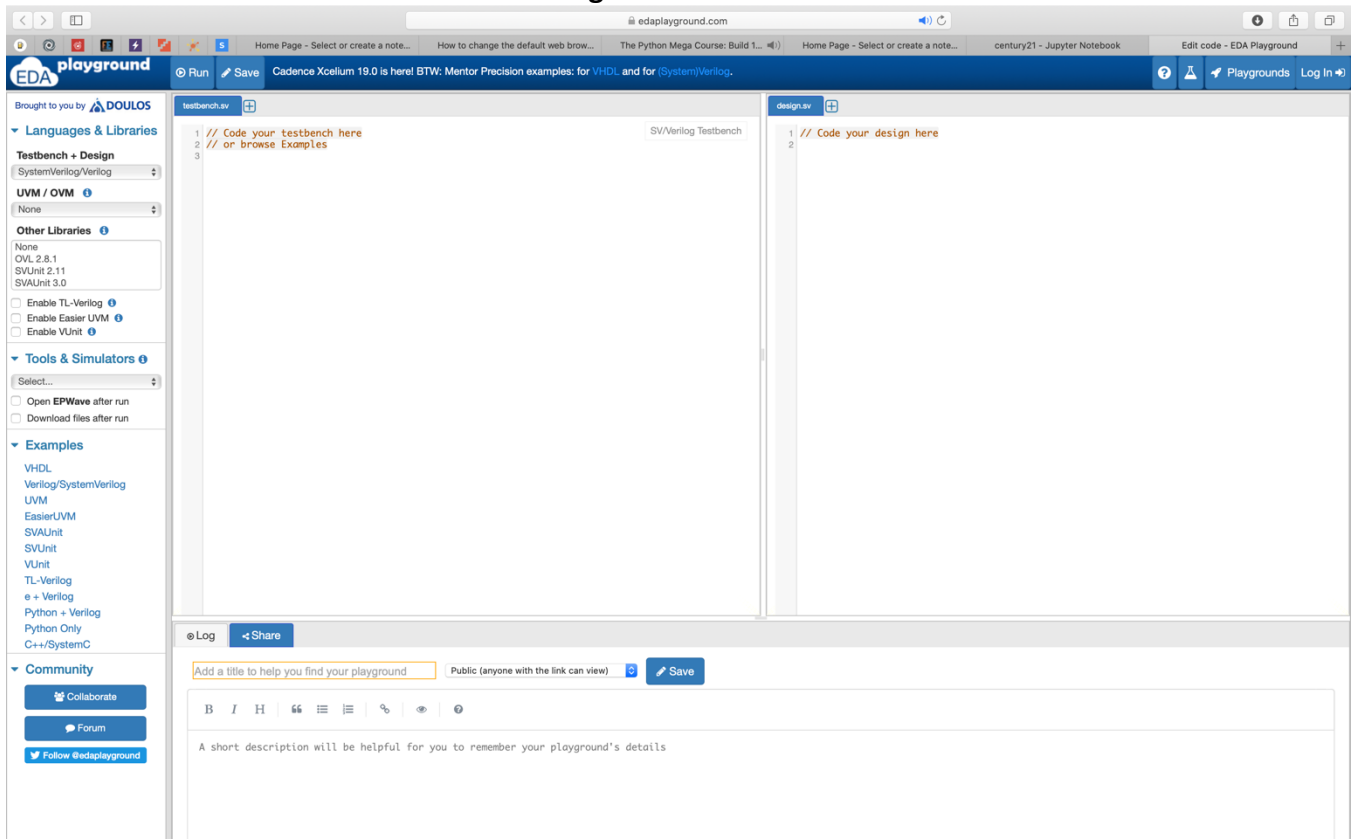
- **Price Comparison:** Services such as ParseHub use web scraping to collect data from online shopping websites and use it to compare the prices of products.
- **Email address gathering:** Many companies that use email as a medium for marketing, use web scraping to collect email ID and then send bulk emails.
- **Social Media Scraping:** Web scraping is used to collect data from Social Media websites such as Twitter to find out what's trending.
- **Research and Development:** Web scraping is used to collect a large set of data (Statistics, General Information, Temperature, etc.) from websites, which are analyzed and used to carry out Surveys or for R&D.
- **Job listings:** Details regarding job openings, interviews are collected from different websites and then listed in one place so that it is easily accessible to the user.
- In this section we were taught how to scrap data from a real estate website.

**Why Python for Web Scraping?**

- **Ease of Use:** Python is simple to code. You do not have to add semi-colons ";" or curly-braces "{}" anywhere. This makes it less messy and easy to use.
- **Large Collection of Libraries:** Python has a huge collection of libraries such as Numpy, Matplotlib, Pandas etc., which provides methods and services for various purposes. Hence, it is suitable for web scraping and for further manipulation of extracted data.
- **Dynamically typed:** In Python, you don't have to define datatypes for variables, you can directly use the variables wherever required. This saves time and makes your job faster.
- **Easily Understandable Syntax:** Python syntax is easily understandable mainly because reading a Python code is very similar to reading a statement in English. It is expressive and easily readable, and the indentation used in Python also helps the user to differentiate between different scope/blocks in the code.
- **Small code, large task:** Web scraping is used to save time. But what's the use if you spend more time writing the code? Well, you don't have to. In Python, you can write small codes to do large tasks. Hence, you save time even while writing the code.
- **Community:** What if you get stuck while writing the code? You don't have to worry. Python community has one of the biggest and most active communities, where you can seek help from.

<b>Date:</b>	<b>03-06-2020</b>	<b>Name:</b>	<b>Prajwal Kamageethi Chakravarti P L</b>
<b>Course:</b>	<b>DIGITAL DESIGN USING HDL</b>	<b>USN:</b>	<b>4AL17EC073</b>
<b>Topic:</b>	<ul style="list-style-type: none"> <li>EDA Playground Online complier</li> <li>EDA Playground Tutorial Demo Video</li> <li>How to Download And Install Xilinx Vivado Design Suite</li> <li>Vivado Design Suite for implementation of HDL code</li> </ul>	<b>Semester &amp; Section:</b>	<b>6<sup>TH</sup> &amp; B</b>
<b>Github Repository:</b>	<b><a href="https://github.com/alvas-education-foundation/Prajwal-Kamageethi.git">https://github.com/alvas-education-foundation/Prajwal-Kamageethi.git</a></b>		

### Image of the session:



YouTube video player interface showing a tutorial titled "Verilog on EDA Playground Starting Tutorial" by King X Kok. The video is at 1:44 / 6:36. The EDA Playground interface is visible, showing code for a testbench and a design.

```
// Code your testbench here
// or browse examples
SVVerilog Testbench
1
2
3

// Code your design here
module inverter(a, y);
input a;
output y;
endmodule
```

Verilog on EDA Playground Starting Tutorial  
6,442 views • 5 Jul 2017

King X Kok  
4.03K subscribers

A Getting Started Guide  
Remember to rate & comment!

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YouTube video player interface showing a tutorial titled "Verilog Tutorial 1 -- Ripple Carry Counter" by EDA Playground. The video is at 1:25:05. The video content shows a circuit diagram of a 4-bit ripple carry counter.

Verilog Tutorial 1 -- Ripple Carry Counter  
58,978 views • 11 Nov 2013

EDA Playground  
5.12K subscribers

In this Verilog tutorial, we implement a basic Ripple Carry Counter design and test using Verilog.

Complete Ripple Carry Counter from the Verilog tutorial:

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- Access Any Android Device Remotely Without Touching...

## Report:

- In today's session we noted how to use a EDA Playground Online complier
- EDA Playground Tutorial Demo Video helped us in getting familiarized with the tool.
- How to Download And Install Xilinx Vivado Design Suite and Vivado Design Suite for implementation of HDL code video taught us how to download and use the Xilinx to implement Verilog code.

Implement 4 to 1 MUX using two 2 to 1 MUX using structural modelling style and test the module in online/offline compiler.

## Code:

```
library IEEE;
use IEEE.STD_LOGIC_1164.ALL;

entity mux2_1 is
port(A,B : in STD_LOGIC;
S: in STD_LOGIC;
Z: out STD_LOGIC);
end mux2_1;

architecture Behavioral of mux2_1 is

begin

process (A,B,S) is
begin
if (S ='0') then
Z <= A;
else
Z <= B;
end if;
end process;

end Behavioral;

library IEEE;
use IEEE.STD_LOGIC_1164.ALL;

entity mux4_1 is
port(

A,B,C,D : in STD_LOGIC;
S0,S1: in STD_LOGIC;
Z: out STD_LOGIC
```

```
);  
end mux4_1;
```

architecture Behavioral of mux4\_1 is  
component mux2\_1

port( A,B : in STD\_LOGIC;

S: in STD\_LOGIC;

Z: out STD\_LOGIC);

end component;

signal temp1, temp2: std\_logic;

begin

m1: mux2\_1 port map(A,B,S0,temp1);

m2: mux2\_1 port map(C,D,S0,temp2);

m3: mux2\_1 port map(temp1,temp2,S1,Z);

end Behavioral;

Output:

