**DAY 15 ASSIGNMENT**

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| **Date:** | **03-06-2020** | **Name:** | **Ashish Shanbhag** |
| **Course:** | **DIGITAL DESIGN USING HDL** | **USN:** | **4AL16EC008** |
| **Topic:** | 1. **EDA Playground Tutorial Demo Video** 2. **How to Download And Install Xilinx Vivado Design Suite** 3. **Vivado Design Suite for implementation of HDL code** | **Semester & Section:** | **8th A** |
| **Github Repository:** | **Ashish Shanbhag** |  |  |

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| **FORENOON SESSION DETAILS**      **EDA Playground**  EDA Playground gives engineers immediate hands-on exposure to simulating SystemVerilog, Verilog, VHDL, C++/SystemC, and other HDLs. All you need is a web browser. The goal is to accelerate learning of design/testbench development with easier code sharing and simpler access to EDA tools and libraries.   * With a simple click, run your code and see console output in real time. * View waves for your simulation using [EPWave](http://epwave.readthedocs.org/) browser-based wave viewer. * Save your code snippets (“Playgrounds”). * Share your code and simulation results with a web link. Perfect for web forum discussions or emails. Great for asking questions or sharing your knowledge. * Quickly try something out * Try out a language feature with a small example. * Try out a library that you’re thinking of using.   **Vivado Design Suite**  The Vivado IDE includes a synthesis and implementation environment that facilitates a push button flow with synthesis and implementation runs. The tool manages the run data automatically, allowing repeated run attempts with varying Register Transfer Level (RTL) source versions, target devices, synthesis or implementation options, and physical or timing constraints.  Within the Vivado IDE, you can do the following:  • Create and save a strategy. A strategy is a configuration of command options that you can apply to design runs for synthesis or implementation. See Creating Run Strategies.  • Queue the synthesis and implementation runs to launch sequentially or simultaneously with multi-processor machines. See Running Synthesis.  • Monitor synthesis or implementation progress, view log reports, and cancel runs. See Monitoring the Synthesis Run.  **Implement 4 to 1 MUX using two 2 to 1 MUX using structural modelling style and test the module in online/offline compiler.**  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** |

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| **Date:** | **03-06-2020** | **Name:** | **Ashish Shanbhag** |
| **Course:** | **PYTHON** | **USN:** | **4AL16EC008** |
| **Topic:** | **Scrape Real Estate Property Data from the Web** | **Semester & Section:** | **8th A** |
| **Github Repository:** | **Ashish Shanbhag** |  |  |

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| **FORENOON SESSION DETAILS**      **Scrape Real Estate Property Data from the Web**  The power of data cannot be stressed enough. Anything that is today, and there will be in the future all started somewhere at some granular level with the insights drawn upon data.With just data, there’s nothing much you can do. Essentially, data with quality is out of which remarkable insights are born.Digital innovations born out of this data has been disrupting every industry. The ways and means of doing business have been transformed incredibly in the past decade or so.  A good, credible, and informative real estate website is one that has a huge database of real estate listings covering wide data points like –property details, buyer and seller information, and agentinformation. It is the presence of such huge amount of data that helps smarter decision-making absolute ease. Alarge pool of information that is authentic and credible will help buyers make a more informed decision. To acquire this kind of data from across the internet, real estate data extraction will help in getting all the information that is essential for successful real estate business.When it comes to large volumes of data that is lying around the web in different formats and different sources, there’s no other best solution like scraping that brings all the data hidden almost anywhere. Particularly for real estate data scraping, peoplesearch for various aspects –real estate listings, agent information, the price of the property, plot information, seller profiles and a lot more.  To provide the best real estate services, you need to have a repository of data that covers vast data point spread. Also, constantly refreshing this information will make you more reliable. This data could be stuck in websites, classifieds or any other digital source. Scraping this information will help you own the most exhaustive and authentic information that your clients can trust in terms of quality and in making informed decisions  Some valuable data points to scrape:   * Agent information * Property data * Price data * Address * Reviews * Property size * City/State/Zip code * Rent price * Images   **WEB-SCRAPING USING BEAUTIFUL SOUP**  Beautiful Soup is a Python library designed for quick turnaround projects like screen-scraping. Three features make it powerful:–Beautiful Soup provides a few simple methods and Pythonic idioms for navigating, searching, and modifying a parse tree: a toolkit for dissecting a document and extracting what you need. It doesn’t take much code to write an application–Beautiful Soup provides a few simple methods and Pythonic idioms for navigating, searching, and modifying a parse tree: a toolkit for dissecting a document and extracting what you need. It doesn’t take muchcode to write an application–Beautiful Soup sits on top of popular Python parsers like lxml and html5lib, allowing you to try out different parsing strategies or trade speed for flexibility. |