**DAILY ASSESSMENT FORMAT**

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| **Date:** | **02-06-2020** | **Name:** | **Bhavith** |
| **Course:** | **Digital design using HDL** | **USN:** | **4AL17EC009** |
| **Topic:** | **FPGA architecture ,Verilog HDL Basics**  **By Intel** | **Semester & Section:** | **6th,A** |
| **Github Repository:** | **Bhavith-Online-Courses** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  **PSX_20200603_084907** |
| **Report – Report can be typed or hand written for up to two pages.**  **FPGA Architecture:**   * **The [field-programmable gate array (FPGA)](https://www.arrow.com/en/categories/programmable-devices/programmable-logic-devices/fpgas) is an integrated circuit that consists of internal hardware blocks with user-programmable interconnects to customize operation for a specific application.** * **The interconnects can readily be reprogrammed, allowing an FPGA to accommodate changes to a design or even support a new application during the lifetime of the part.** * **The field-programmable gate array (FPGA) is an integrated circuit that consists of internal hardware blocks with user-programmable interconnects to customize operation for a specific application.** * **The FPGA has its roots in earlier devices such as programmable read-only memories (PROMs) and programmable logic devices (PLDs).** * **These devices could be programmed either at the factory or in the field, but they used fuse technology and could not be changed once programmed.** * **In contrast, FPGA stores its configuration information in a re-programmable medium such as static RAM (SRAM) or flash memory.** * **FPGA manufacturers include [Intel](https://www.arrow.com/en/manufacturers/intel), Xilinx, [Lattice Semiconductor](https://www.arrow.com/en/manufacturers/lattice-semiconductor), [Microchip Technology](https://www.arrow.com/en/manufacturers/microchip-technology) and [Microsemi](https://www.arrow.com/en/manufacturers/microsemi).**.   **Basics of HDL:**   * **Verilog is a HARDWARE DESCRIPTION LANGUAGE (HDL).** * **It is a language used for describing a digital system like a network switch or a microprocessor or a memory or a flip−flop.** * **It means, by using a HDL we can describe any digital hardware at any level.** * **Designs, which are described in HDL are independent of technology, very easy for designing and debugging, and are normally more useful than schematics, particularly for large circuits.**   **Verilog supports a design at many levels of abstraction. The major three are −**   * **Behavioral level** * **Register-transfer level** * **Gate level** |

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| **Date:** | **02-05-2020** | **Name:** | **Bhavith** | |
| **Course:** | **Python** | **USN:** | **4AL17EC009** | |
| **Topic:** | **Geocoder Web service using Python** | **Semester & Section:** | **6th,A** | |
| **AFTERNOON SESSION DETAILS** | | | |
| **Image of session**  **Screenshot (130)** | | | |
| **Report – Report can be typed or hand written for up to two pages.**   * **Geocoding is the process of taking input text, such as an [address](https://en.wikipedia.org/wiki/Address_(geography)" \o "Address (geography)) or the name of a [place](https://en.wikipedia.org/wiki/Location_(geography)" \o "Location (geography)), and returning a latitude/longitude location on the Earth's surface for that place.** * **[Reverse geocoding](https://en.wikipedia.org/wiki/Reverse_geocoding" \o "Reverse geocoding), on the other hand, converts [geographic coordinates](https://en.wikipedia.org/wiki/Geographic_coordinates" \o "Geographic coordinates) to a description of a location, usually the name of a place or an addressable location.** * **Geocoding relies on a computer representation of address points, the street / road network, together with postal and administrative boundaries.** * **Geocoding is a task which involves multiple datasets and processes, all of which work together.** * **A geocoder is made of two important components: a reference dataset and the geocoding algorithm.** * **Each of these components are made up of sub-operations and sub-components.** * **Without understanding how these geocoding processes work, it is difficult to make informed business decisions based on geocoding.** | | | |