**DAILY ASSESSMENT FORMAT**

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| **Date:** | **04/06/2020** | **Name:** | **Akshay** |
| **Course:** | **python** | **USN:** | **4al17ec008** |
| **Topic:** | **Building Mobile App** | **Semester & Section:** | **6th A** |
| **Github Repository:** | **Akshay-Online-Course** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session**  We will use the kivy library to build a mobile app in Python. Below you will find the instructions on how to install kivy.    **Important note**: Do not simply use pip install kivy to install kivy because even though the command may run without errors, you may get a [CRITICAL] [App] Unable to get a Window, abort error later on when you run a kivy app. Instead, see the instructions below in order to install kivy correctly.   ****Mac and Linux users**** Kivy currently only works with Python 3.7 or earlier on Mac and Linux. You might want to install Python 3.7 first, and then install kivy for your Python 3.7 with:  python3.7 -m pip install kivy  Tip: If you just installed Python 3.7, make sure to configure your IDE to use Python 3.7, otherwise your IDE may be still using the other version of Python. ****Windows users**** **- Python 3.7 or earlier**  If you are using Python 3.7 or earlier, run all three following commands one by one:  pip install kivy  pip install kivy.deps.glew  pip install docutils pygments pypiwin32 kivy.deps.sdl2  **- Python 3.8**  If you are using Python 3.8, run all four following commands one by one:  pip install --upgrade pip setuptools wheel  pip install https://github.com/kivy/kivy/archive/master.zip  pip install kivy.deps.glew  pip install docutils pygments pypiwin32 kivy.deps.sdl2  Some users may get installation errors or they might get a [CRITICAL] [App] Unable to get a Window, abort error later on when they run a Kivy app. If that's the case, run the following commands:  python -m pip install --upgrade pip setuptools wheel  python -m pip install docutils pygments pypiwin32 kivy\_deps.sdl2==0.1.\* kivy\_deps.glew==0.1.\*  python -m pip install kivy==1.11.1  If you still get errors, see the FAQs further below.   FAQs 1. I get an error message Microsoft Visual C++ should be installed after running the pip commands.  **Solution**: Download the Microsoft C++ Build Tools from <https://visualstudio.microsoft.com/visual-cpp-build-tools/>, install them, restart your computer, and then run again the three pip commands. |
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| **Github**  **Repository:** | **Akshay-Online-Course**  We will use the kivy library to build a mobile app in Python. Below you will find the instructions on how to install kivy.    **Important note**: Do not simply use pip install kivy to install kivy because even though the command may run without errors, you may get a [CRITICAL] [App] Unable to get a Window, abort error later on when you run a kivy app. Instead, see the instructions below in order to install kivy correctly.   ****Mac and Linux users**** Kivy currently only works with Python 3.7 or earlier on Mac and Linux. You might want to install Python 3.7 first, and then install kivy for your Python 3.7 with:  python3.7 -m pip install kivy  Tip: If you just installed Python 3.7, make sure to configure your IDE to use Python 3.7, otherwise your IDE may be still using the other version of Python. ****Windows users**** **- Python 3.7 or earlier**  If you are using Python 3.7 or earlier, run all three following commands one by one:  pip install kivy  pip install kivy.deps.glew  pip install docutils pygments pypiwin32 kivy.deps.sdl2  **- Python 3.8**  If you are using Python 3.8, run all four following commands one by one:  pip install --upgrade pip setuptools wheel  pip install https://github.com/kivy/kivy/archive/master.zip  pip install kivy.deps.glew  pip install docutils pygments pypiwin32 kivy.deps.sdl2  Some users may get installation errors or they might get a [CRITICAL] [App] Unable to get a Window, abort error later on when they run a Kivy app. If that's the case, run the following commands:  python -m pip install --upgrade pip setuptools wheel  python -m pip install docutils pygments pypiwin32 kivy\_deps.sdl2==0.1.\* kivy\_deps.glew==0.1.\*  python -m pip install kivy==1.11.1  If you still get errors, see the FAQs further below.   FAQs 1. I get an error message Microsoft Visual C++ should be installed after running the pip commands.  **Solution**: Download the Microsoft C++ Build Tools from <https://visualstudio.microsoft.com/visual-cpp-build-tools/>, install them, restart your computer, and then run again the three pip commands. |  |  |
| **Date:** | **04-06-2020** | **Name:** | **Akshay** |
| **Course:** | **Digital Design Using HDL** | **USN:** | **4AL17EC008** |
| **Topic:** | **Hardware Modeling using**  **Verilog**  **Implement T Flip-Flop** | **Semester**  **& Section:** | **6th & ‘A’** |
| **Github**  **Repository:** | **Akshay-Online-Course** |  |  |

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| **FORENOON SESSION DETAILS** |
| **Image of session** |
| **Report –Hardware Modeling Using Verilog Objective of Hardware Modeling Using Verilog**   * Learn about the Verilog hardware description language. * Understand the difference between behavioral and structural design styles. * Learn to write test benches and analyze simulation results. * Learn to model combinational and sequential circuits, * Distinguish between good and bad coding practices. * Case studies with some complex designs.   **VLSI Design Process**   * **Design complexity increasing rapidly**   + Increased size and complexity   + Fabrication technology improving   + CAD tools are essential   + Conflicting requirements like area, speed, and energy consumption |

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| * **The present trend**   + Standardize the design flow   + Emphasis on low-power design, and increased performance **Moore’s Law** * Exponential growth * Design complexity increases rapidly * Automated tools are essential * Must follow well defined design flow   **Standardized design procedure**   * Starting from the design idea down to the actual implementation.   **Encompasses many steps:**   * Specification Synthesis * Simulation * Layout Testability analysis * and many more   **Need to use Computer Aided Design (CAD) tools.**   * Hardware Description Language (HDL) * Based on HDL provide formats for representing the outputs of various design steps * A CAD tool transforms its HDL input into a HDL output that contains more detailed information about the hardware.   + Behavioral level to register transfer level   + Register transfer level to gate level   + Gate level to transistor level   + Transistor to the layout level **Two Competing HDL’s** * Verilog * VHDL   **Behavioral design**   * Specify the functionality of the design in terms of its behavior. * Various ways of specifying:   + Boolean expression or truth table.   + Finite-state machine behavior (e.g. state transition diagram or table).   + In the form of a high-level algorithm. * Needs to be synthesized into more detailed specifications for hardware realization, **Data path design** * Generate a netlist of register transfer level components, like registers, adders, multipliers,   multiplexers, decoders, etc.   * A netlist is a directed graph, where the vertices indicate components, and the edges   indicate interconnections. |