DAILY ASSESSMENT FORMAT

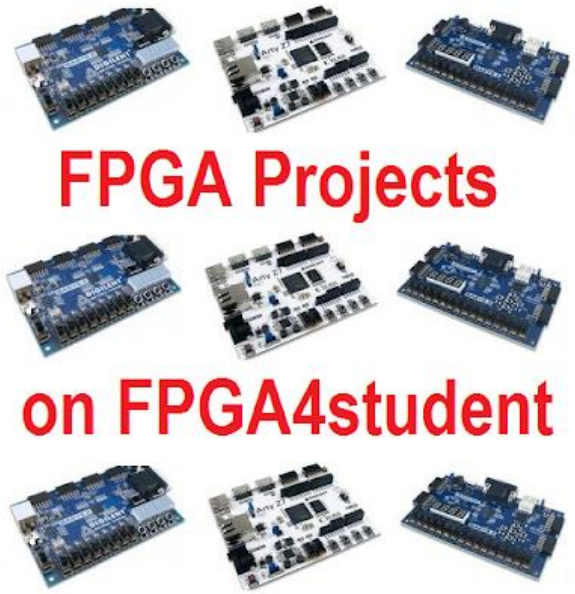
Date:	**05/06/2020**	**Name:**	**Nishanth**
Course:	**DIGITAL DESIGN USING HDL**	**USN:**	**4al17ec063**
Topic:	Verilog Tutorials and practice programs Building/ Demo projects using FPGA	**Semester & Section:**	**6thb-section**
GitHub Repository:	**nishanthvr**		

FORENOON SESSION DETAILS

Image of session:

FPGA Projects

This page presents FPGA projects on fpga4student.com. The first FPGA project helps students understand the basics of FPGAs and how Verilog/ VHDL works on FPGA.



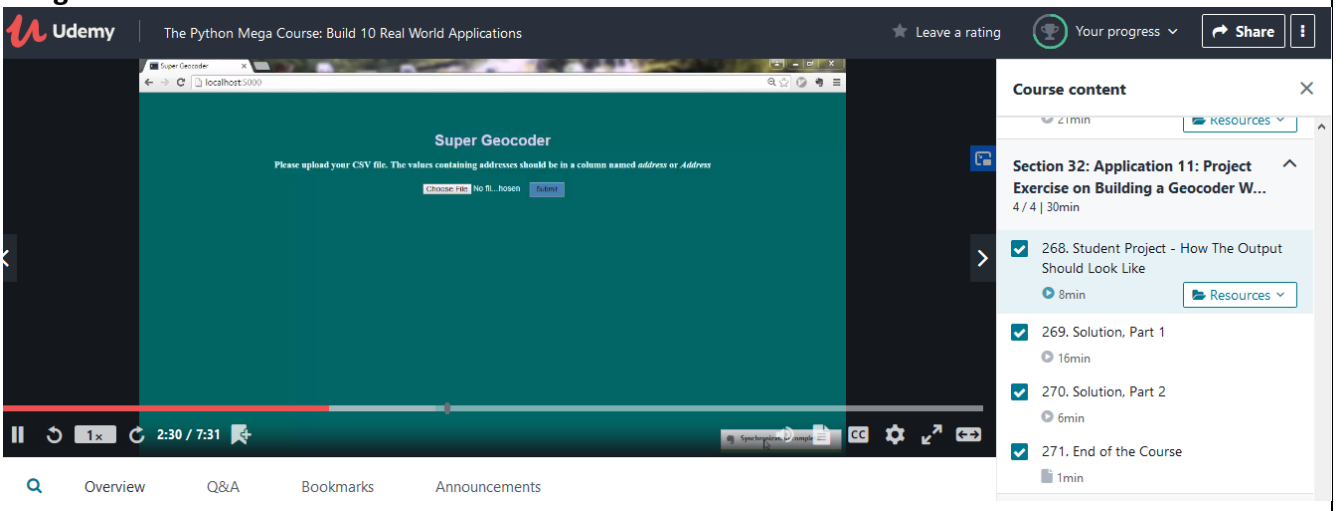
Some of the FPGA projects can be FPGA tutorials such as What is FPGA Programming, image processing on FPGA, matrix multiplication on FPGA Xilinx using Core Generator, Verilog vs VHDL: Explain by Examples and how to load text files or images into FPGA. Many others FPGA projects

FPGA is that the design process is pretty simple and really easy to learn. The design flow for ASICs is very complicated and time-consuming since it needs a lot of complex steps for designing, verification, and implementation. On the other hand, FPGA design process mostly avoids sophisticated and time-consuming steps like Floor-planing, Timing Analysis, Physical Implementation, etc. because FPGA is already a characterized and verified chip. Of course, when needed, FPGA vendors also provide necessary tools for floorplanning and timing analysis to enable users optimizing performance for niche very-demanding designs. In fact, FPGA design flow only takes several steps such as HDL design and coding, functional simulation, synthesis, timing or post-synthesis simulation if needed, and Place And Route. Furthermore, many FPGA design tools are free and very easy for users to learn and design. FPGA vendors provide free user guides and tutorials to facilitate user's learning process. It could take very short time for students to be familiar with FPGA design if they have a good background in digital logic design

Date:	**05/06/2020**	**Name:**	**Nishanth**
Course:	**Python**	**USN:**	**4al17ec063**
	Application 10: Project Exercise on Building a Geocoder Web Service	**Semester & Section:**	**6th and b section**

AFTERNOON SESSION DETAILS

Image of session



We often need to convert addresses to geographic locations (latitude and longitude), and this is called geocoding. There are several free geocoding API (with a limit of course) that you can use. In this tutorial, I will show you how to create the free geocoding application that you can drag and drop CSV files with address and get (download) a geocoded addresses as CSV.

We build the geocoding App with Python using Geopandas and Streamlit. Optionally you need an IDE like Visual studio code to run the app.