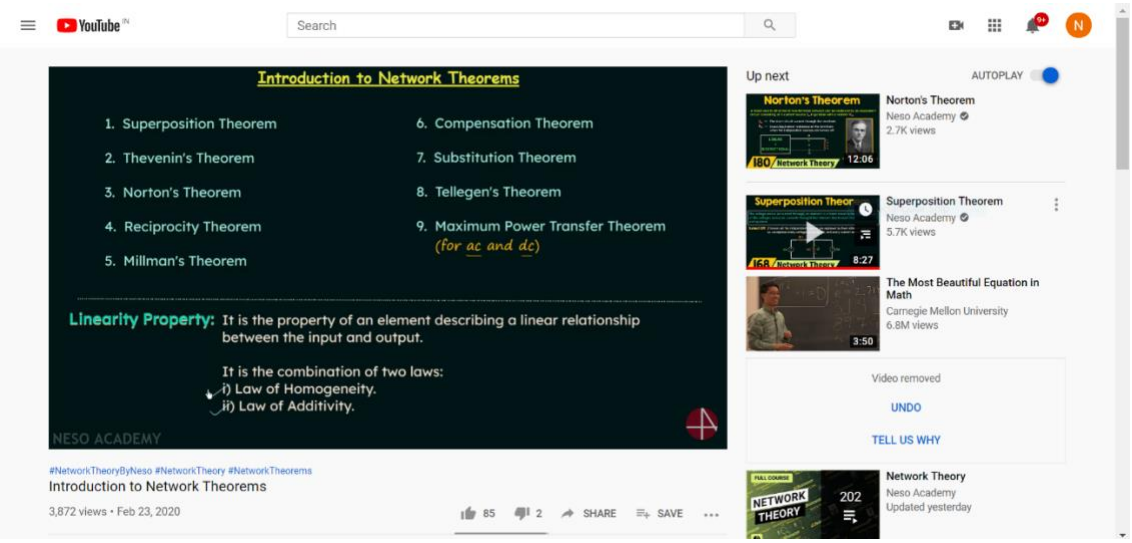
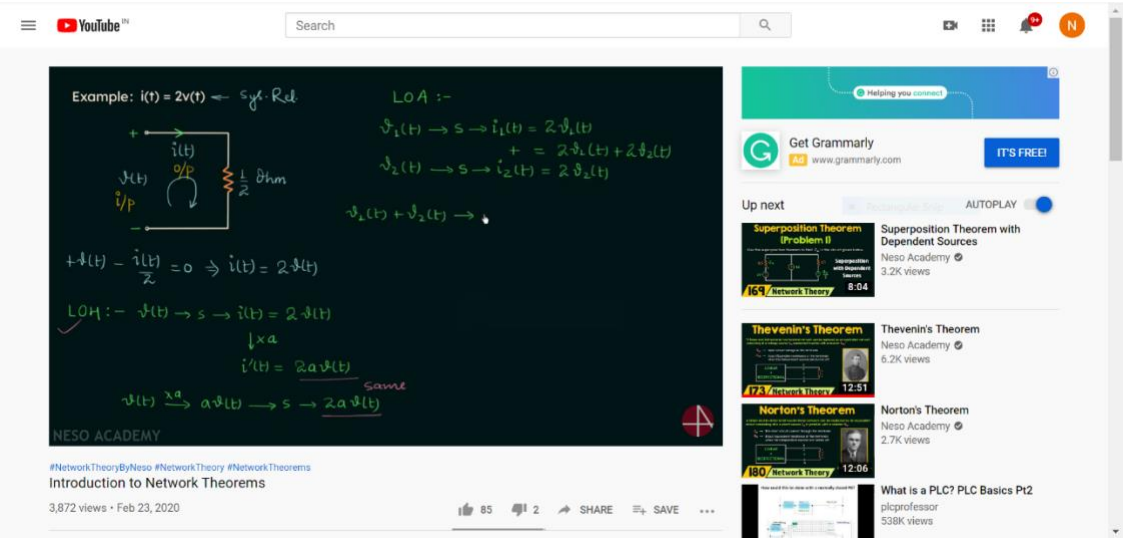
DAILY ASSESSMENT FORMAT

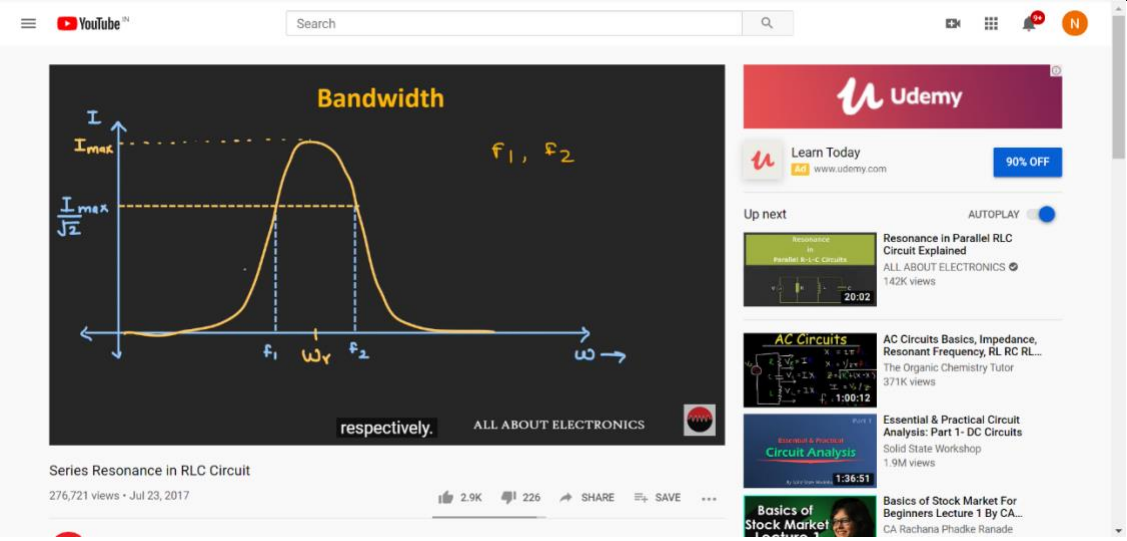
Date:	02-06-2020	Name:	Neha T
Course:	Network Theory	USN:	4AL18EC035
Topic:	Network theorems Resonance	Semester & Section:	4th sem A sec
GitHub Repository:	Neha-T		

FORENOON SESSION DETAILS

Image of session







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

- **Network Theorems**
  - **Intro -In case of complex network, tedious competition will get involved**
  - **To handle this complex network, theorems are used by the Engineers**
  - **There are 9 theorems which are discussed below**

- **Superposition theorem**
  - **How to use this theorem to do the analysis of linear Bidirectional network**
  - **Note**
    - **The dependent sources are left as they are**
    - **The Superposition theorem is not valid in case of non-linear circuit**
  - **Discussed with example problem**

- **Thevenin's theorem**
  - **Was given by Leon Charles Thevenin who was a French Engineer, developed on 1883**
  - **Why this theorem is needed**
    - **If often happens that the element in a circuit is variable while the other elements are fixed, each time the variable element is changed the entire circuit must be analyzed again**
    - **To avoid this problem, we replace fixed part of the circuit by an Thevenin's equivalent circuit**
  - **Discussed with example problem**

- **Norton's theorem**

- **Norton's Theorem states that it is possible to simplify any linear circuit, no matter how complex, to an equivalent circuit with just a single current source and parallel resistance connected to a load**
- **Need of this theorem**
  - ❖ **The Norton equivalent circuit is used to represent any network of linear sources and impedances at a given frequency.**
  - ❖ **Norton's theorem and its dual, Thevenin's theorem, are widely used for circuit analysis simplification and to study circuit's initial-condition and steady-state response**

➢ **Reciprocity theorem**

- **Need of Reciprocity theorem**
  - ❖ **Reciprocity theorems are used in many electromagnetic applications, such as analyzing electrical networks and antenna systems**
- **The Reciprocity Theorem is applicable for both AC and DC Circuits**
- **While applying Reciprocity Theorem, the circuit does not have time varying element**

➢ **Millman's theorem**

- **Millman's theorem is a method to simplify the solution of a circuit**
- **Specifically, Millman's theorem is used to compute the voltage at the ends of a circuit made up of only branches in parallel**
- **It is named after Jacob Millman, who proved the theorem**

➢ **Max Power Transfer theorem**

- **The maximum amount of power will be dissipated by a load resistance if it is equal to the Thevenin or Norton resistance of the network supplying power**

➢ **Compensation theorem**

- **In Compensation Theorem, the source voltage (V_C) opposes the original current**
- **Can be stated as – the resistance of any network can be replaced by a voltage source, having the same voltage as the voltage drop across the resistance which is replaced**

➢ **Tellegen's theorem**

- **Tellegen's Theorem states that the summation of power delivered is zero for each branch of any electrical network at any instant of time**
- **It is mainly applicable for designing the filters in signal processing**
- **It is also used in complex operating systems for regulating stability**

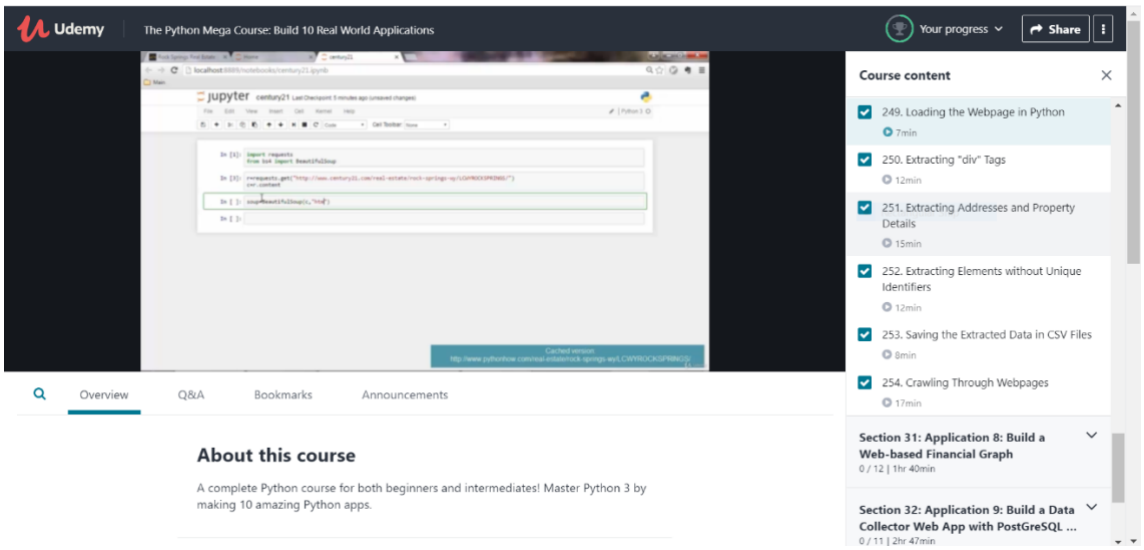
➢ **Resonance**

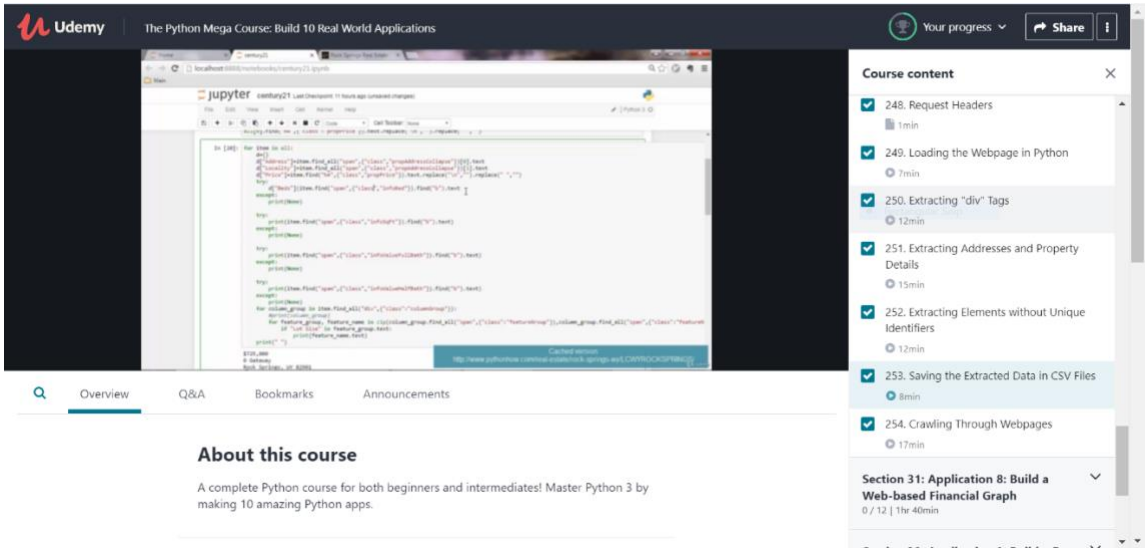
- **Series RLC Circuits**
- **Parallel RLC Circuits**

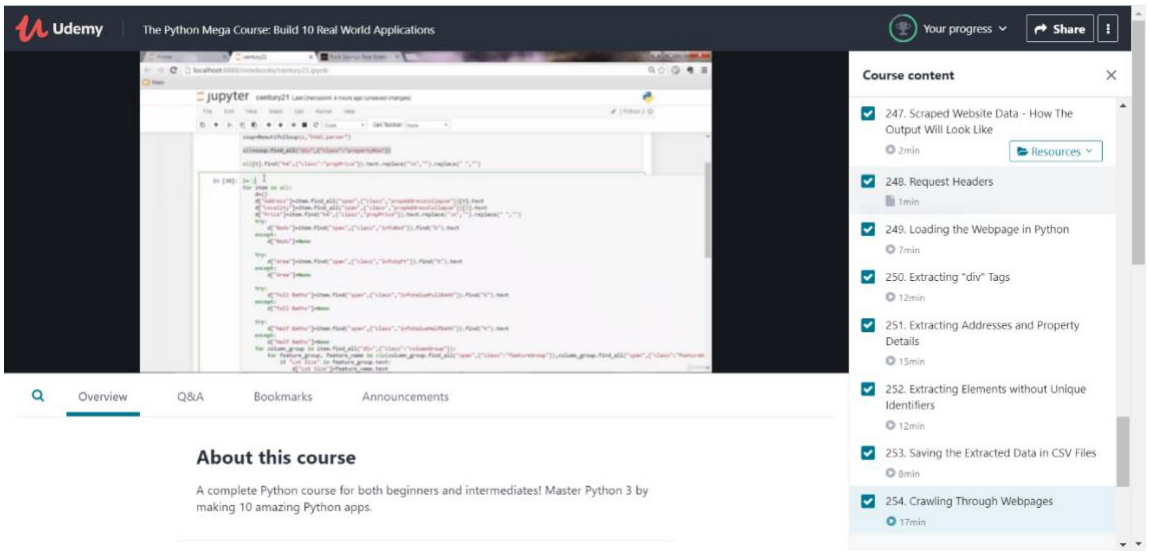
Date:	**02-06-2020**	**Name:**	**Neha T**
Course:	**Python**	**USN:**	**4AL18EC035**
Topic:	**Scraped Website Data**	**Semester & Section:**	**4th sem A sec**

AFTERNOON SESSION DETAILS

Image of session







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

- **Scrape Real Estate Property Data from the Web**
  - **Intro –**
    - **process of sorting through overwhelming amounts of data, refine the user's searches and provide a list of relevant information**
    - **In a realtor's case, it is the go-to tool for organized property listings**
  - **Request Headers**
    - **HTTP header that can be used in an HTTP request, and that doesn't relate to the content of the message**
  - **Under this session**
    - **Loading the Webpage in Python**
    - **Extracting "div" Tags**
    - **Extracting Addresses, Property Details and elements without Unique Identifiers**
    - **Saving the Extracted Data in CSV Files**

- **Crawling through Webpages**

Were discussed