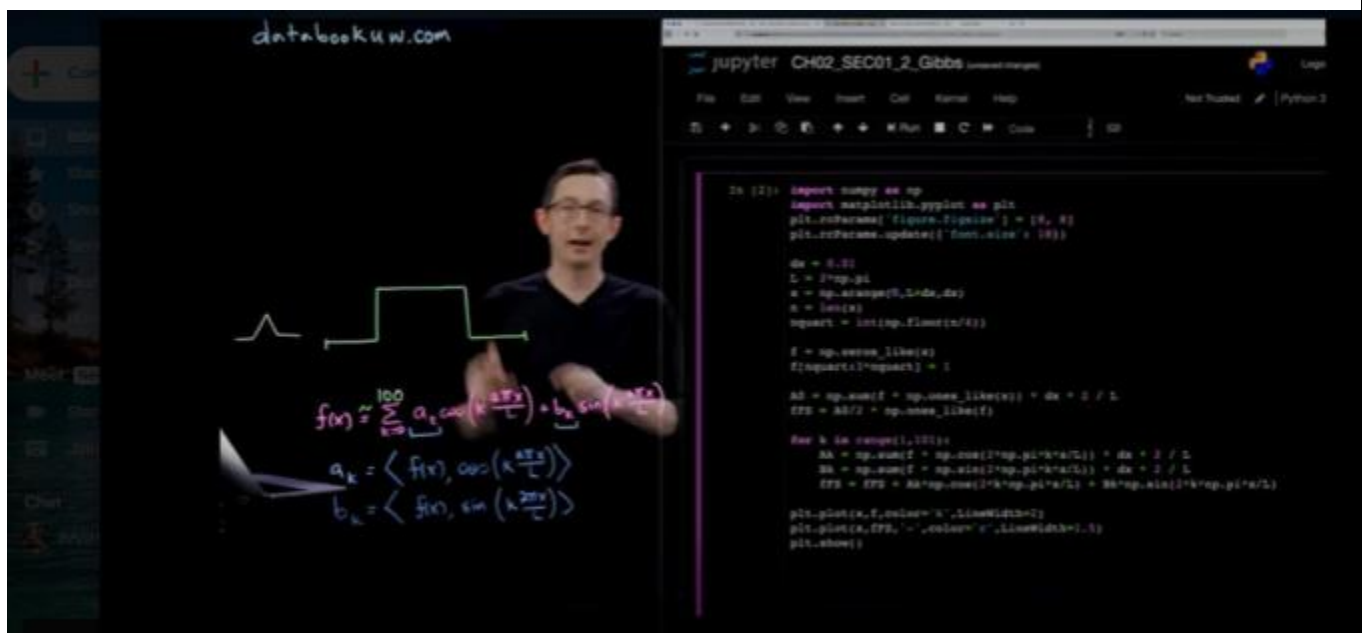
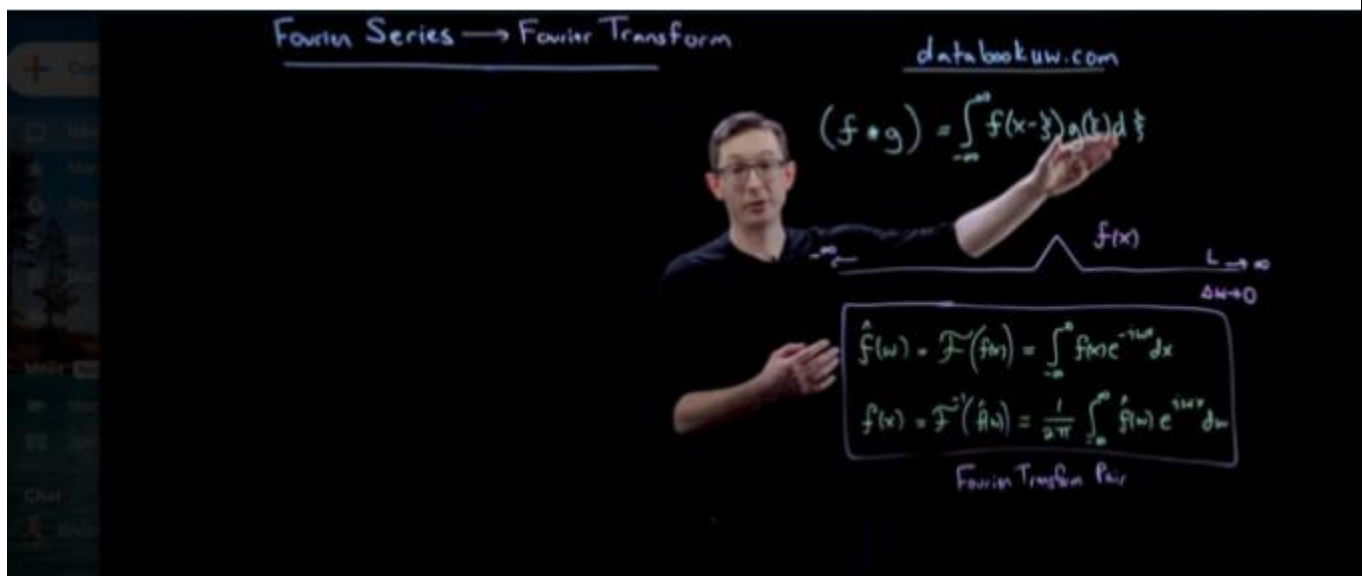


## DAILY ASSESSMENT FORMAT

Date:	26/05/2020	Name:	Yashaswini.R
Course:	Digital signal processing	USN:	4AL17EC098
Topic:	Fourier series and gibbs phenomena, Convolutional integrals, z transform	Semester & Section:	6 <sup>th</sup> sem 'B' sec
Github Repository:	Yashaswini	e-mail	rsyashaswini1999@gmail.com

### FORENOON SESSION DETAILS

Image of session



## Fourier series and Gibbs phenomena[python]:

```
import numpy as np
import matplotlib.pyplot as plt
plt.rcParams ['figure.figsize']= [8,8]
plt.rcParams.update({'font.size':18})
dx=0.01
L=2*np.pi
x= np.arange(0,L+dx,dx)
n= len(x)
nquart=int(np.floor(n/4))
f=np.zeros_like(x)
f(nquart:3*nquart)*1
A0=np.sum(f*np.ones_like(x))*dx*2/L
Ffs=A0/2*np.ones_like(f)
for k in range(1,10):
    Ak=np.sum(f*np.cos(2*np.pi*k*x/L))*dx*2/L
    Bk= np.sum(f*np.sin(2*np.pi*k*x/L))*dx*2/L
    fFS=fFS+Ak*np.cos(2*k*np.pi*x/L)+Bk*np.sin(2*k*np.pi*x/L)
plt.plot(x,f,color='k' linewidth=2)
plt.plot(x,fFS, '--',color='r',linewidth=1.5)
plt.show()
```

## Fourier transform:

A Fourier transform (FT) is a mathematical transform which decomposes a function (often a function of time, or a signal) into its constituent frequencies, such as the expression of a musical chord in terms of the volumes and frequencies of its constituent notes. The term Fourier transform refers to both the frequency domain representation and the mathematical operation that associates the frequency domain representation to a function of time.

The Fourier transform of a function of time is a complex-valued function of frequency, whose magnitude (absolute value) represents the amount of that frequency present in the original function, and whose argument is the phase offset of the basic sinusoid in that frequency. The Fourier transform is not limited to functions of time, but the domain of the original function is commonly referred to as the time domain. There is also an inverse Fourier transform that mathematically synthesizes the original function from its frequency domain representation, as proven by the Fourier inversion theorem.

### Convolutional integral:

The Convolution Integral. You know how to find the output  $y(t)$  if the input  $f(t)$  is a well defined input such as a step, impulse or sinusoid. Convolution allows you to determine the response to more complex inputs

### Z-transform:

In mathematics and signal processing, the Z-transform converts a discrete-time signal, which is a sequence of real or complex numbers, into a complex frequency-domain representation. It can be considered as a discrete-time equivalent of the Laplace transform

### Application of Z-transform:

- To solve linear difference equation
- To characterize the transform function of discrete time
- To design digital filter

### How to calculate Z-transform in matlab?

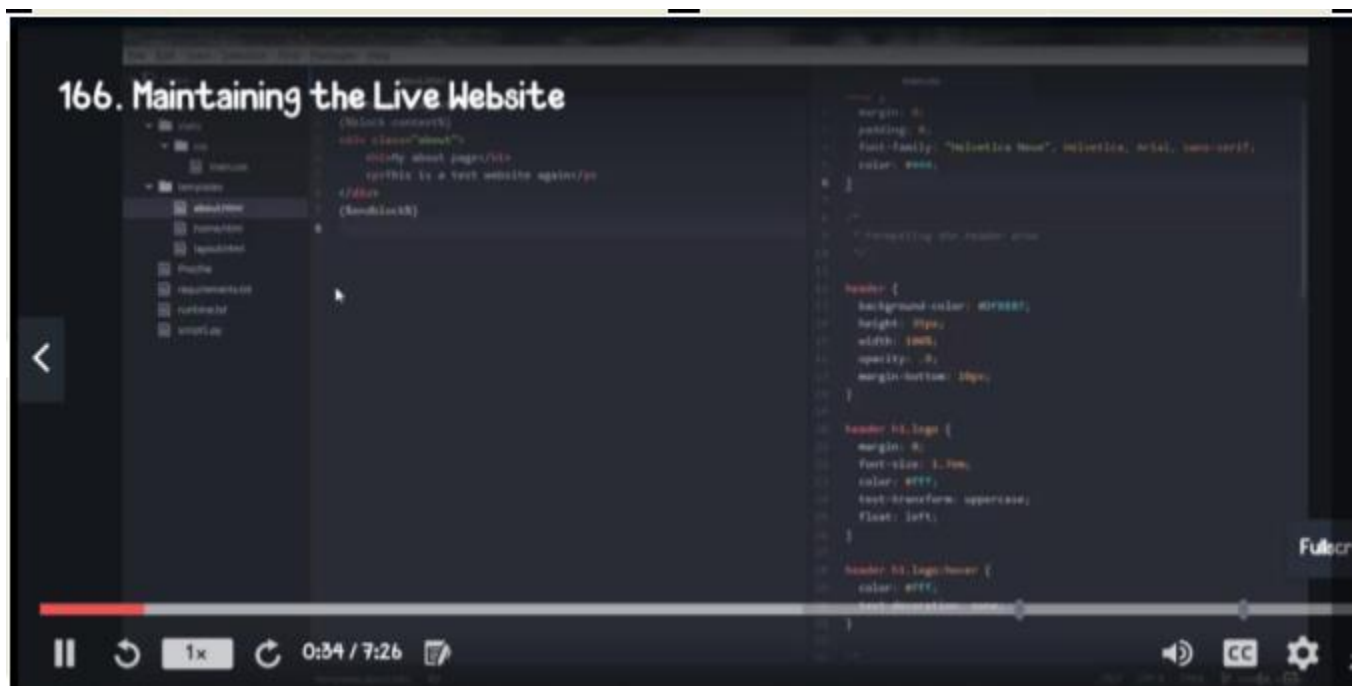
```
clc;
clear all;
syms n;
a=n+1;
b=ztrans(a);
disp(a)
z/(z+1)+z/(z-1)^2
>>pretty(b)
      z      z
----- + -----
  z-1      2
(z-1)
```

## DAILY ASSESSMENT FORMAT

Date:	26/05/2020	Name:	Yashaswini.R
Course:	Python	USN:	4AL17EC098
Topic:	Build a personal website with python & flask	Semester & Section:	6 <sup>th</sup> sem 'B' sec
Github Repository:	Yashaswini		

### AFTERNOON SESSION DETAILS

Image of session



## **What is flask ?**

**Flask is a python frame work that has all tools, functions and templets for us to build the website with python.**

```
from lask import flask  
app=flask(__name__)  
@app.router('/')  
def home():  
    return "homepage here!"  
@app.route('/about/')  
def about():  
    return "about content goes here!"  
if __name__ == "__main__":  
    app.run(debug=true)
```

## **Browser caching:**

**Sometimes when we make a change to CSS file and reload the webpage,the changes are not shown because the browser uses the previous cached styling.if this happens,open the browser in private(incognito) mode and load the webpage there.**

## **Troubleshooting :**

**If you deployed your website on Heroku but when you visit the website on the browser you see an error, you probably did something wrong during the deployment.**

**No worries! You can see what you did wrong by looking at the server logs .You can access the server logs by running the following in your terminal:**

**heroku logs**

**This command will show a series of messages.carefully read the logs to understand what went wrong.If you have trouble understanding the logs,feel free to post the logs in the Q&A**

