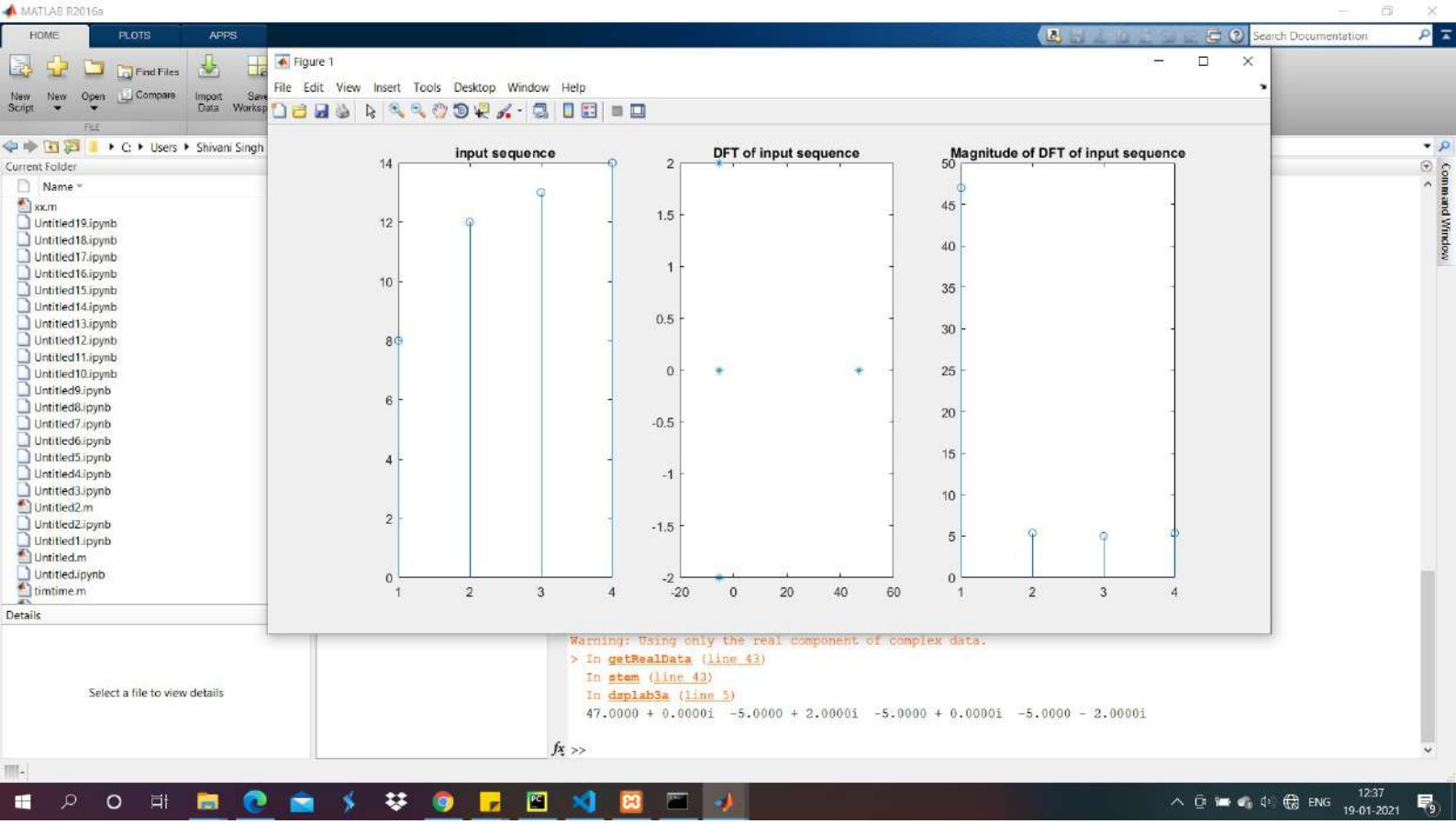
```
x= input ('Enter the original signal')
l= length (x);
N= input('Enter value greater than or equal to length of x');
if (N>length(x))
    for i= 1:N-length(x)
        x=[x 0]
    end

end
F=[];
xx=0;
for k= 0:N-1
    for n=0:N-1
        xx=xx+x(n+1)*exp(-j*2*pi*n*k/N);

    end
        F= [F, xx]
        xx=0;
end
mag=abs(F);
ang=angle(F);
disp(F);
subplot(1,3,1)
stem(x)
title('input sequence')
subplot(1,3,2)
plot(real(F),imag(F),'*')
title('DFT of input sequence')
subplot(1,3,3)
stem(mag)
title('Magnitude of DFT of input sequence')
```


MATLAB R2016a
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Find Files
Compare
Import Data
FILE
C: ▸ Users ▸ Shivani Singh
Current Folder
Name
xx.m
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Untitled2.m
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Untitled1.ipynb
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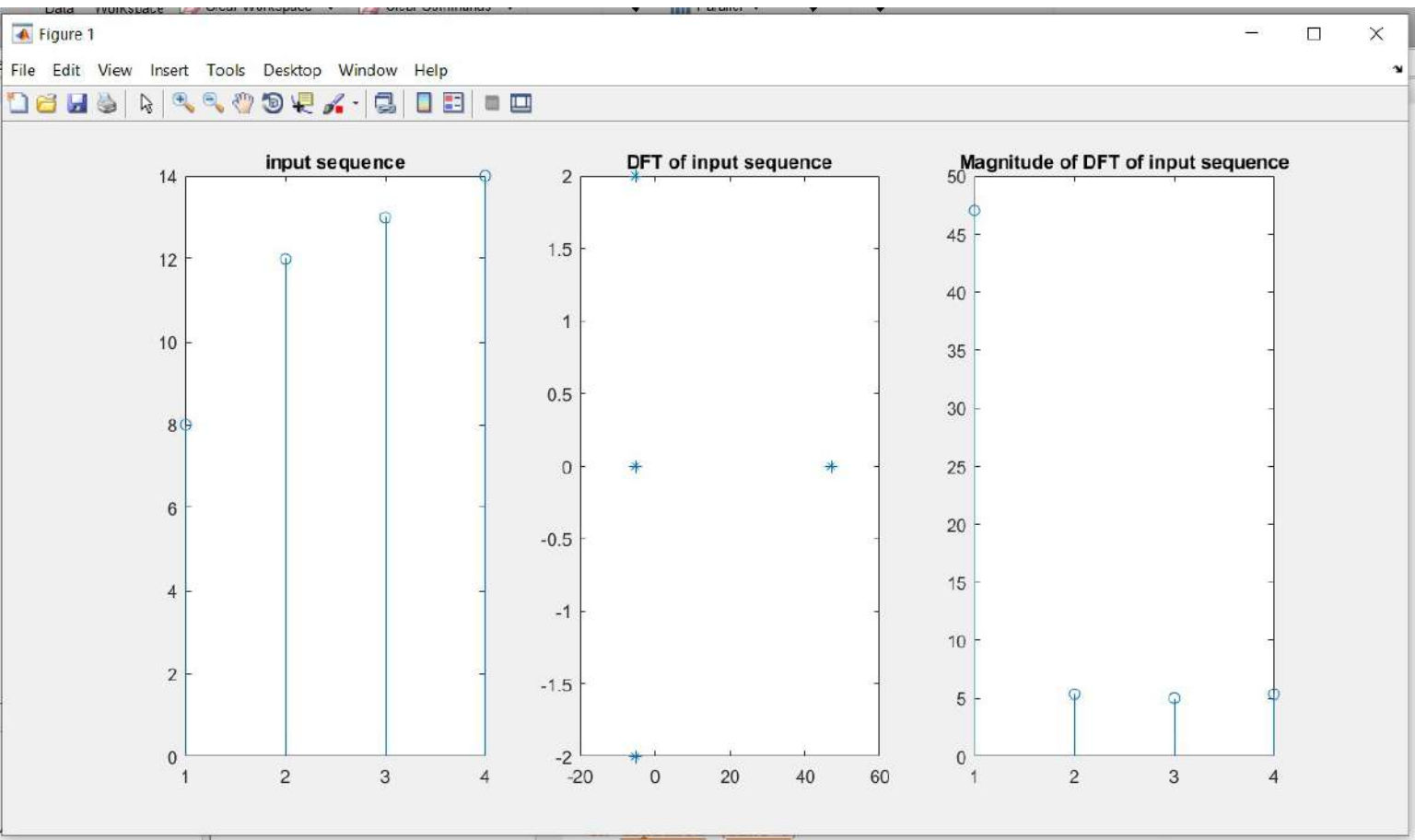
timtime.m
Details
Select a file to view details
Figure 1
File Edit View Insert Tools Desktop Window Help
input sequence
DFT of input sequence
Magnitude of DFT of input sequence
Warning: Using only the real component of complex data.
> In getRealData (line 43)
In stem (line 43)
In dsplab3a (line 5)
47.0000 + 0.0000i -5.0000 + 2.0000i -5.0000 + 0.0000i -5.0000 - 2.0000i
>>
Command Window
ENG
12:37
19-01-2021

```
x=input('Enter the first sequence');
N= input('Enter value greater than or equal to length of x');
F=fft(x,N);
disp(F);
stem(F);
mag=abs(F);
ang=angle(F);
disp(F);
subplot(1,3,1)
stem(x)
title('input sequence')
subplot(1,3,2)
plot(real(F),imag(F),'*')
title('DFT of input sequence')
subplot(1,3,3)
stem(mag)
title('Magnitude of DFT of input sequence')
```




```
47.0000 + 0.0000i  -5.0000 + 2.0000i  -5.0000 + 0.0000i  -5.0000 - 2.0000i
```