DIGITAL SIGNAL PROCESSING

REPORT02

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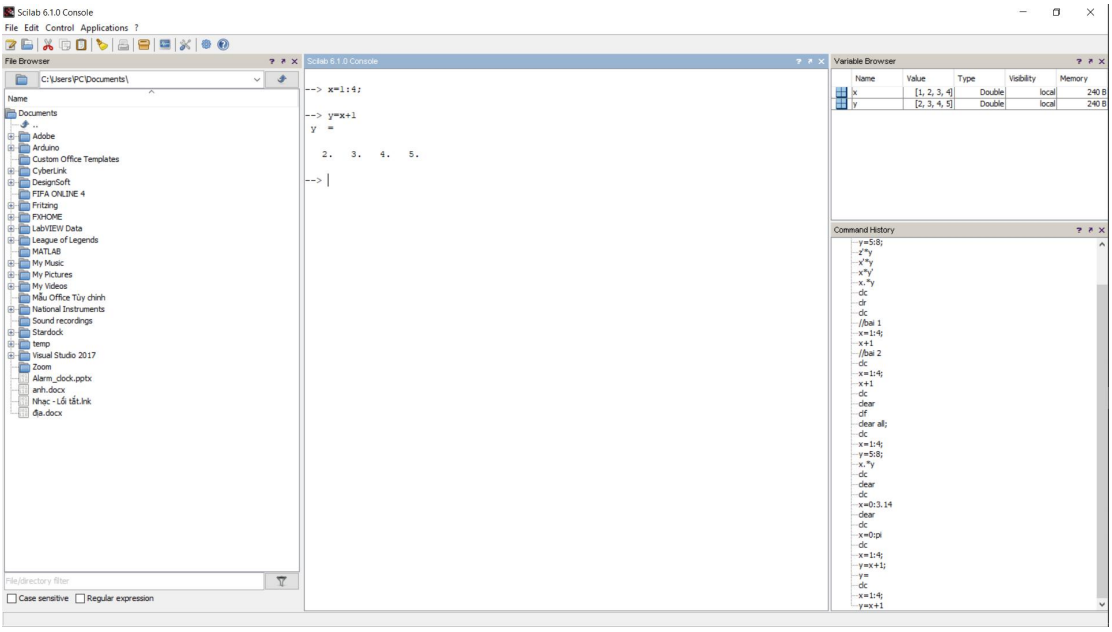
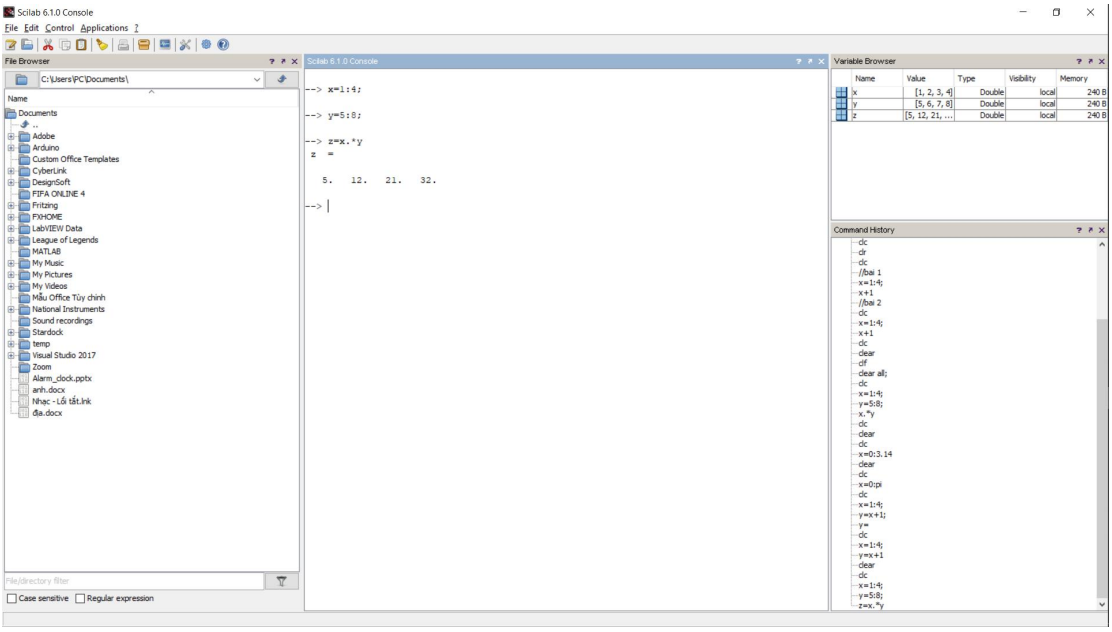
Ho Chi Minh, 21/10/2020.

1.1.Using the operators in vector and matrix to do the following tasks:

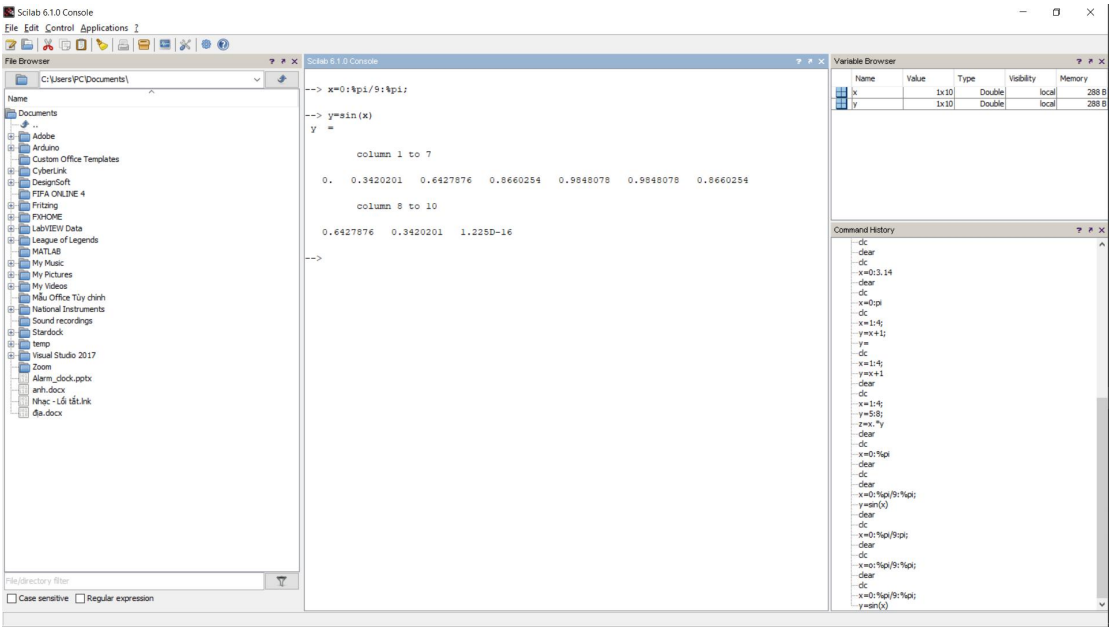
1.1.1



1.1.2



1.1.3



1.2.Consider the following analog signal:

1.2.2

F_S= 300 (sample/s).

T_s= 1 / F_s = 1/300 (s/sample).

X(n) = 3sinπ n/3.

1.2.3

X(n) = 3sinπ n/3.

$$\omega = \frac{\pi}{3}$$

$$N = \frac{2\pi k}{\omega} = 6k$$

N_0 = 6 for k = 1.

=> X(n) is periodic signal, the frequency is 1/6 and period is 6.

1.2.4

$-\Delta < e_q(n) < \Delta$

$X(n) - \Delta < X_q(n) < X(n) + \Delta$

EX1.sce (D:\DSP\LAB2\EX1.sce) - SciNotes

File Edit Format Options Window Execute ?

EX1.sce | partice1.sce | partice2.sce | partice3.sce | partice4.sce

```
clc;
clf;
clear all;
t=0:1/1000:5/50;
x=3*sin(100*%pi*t);
subplot(221);
plot(x);

title('1.2.1');
xlabel('t');
ylabel('x(t)');

n=0:1:30;
x=3*sin(%pi*n/3);
subplot(222);
plot2d3(x);
plot(x,'.');
title('1.2.2');
xlabel('n');
ylabel('x(n)');

n=0:1:30;
x=3*sin(%pi*n/3);
xq=fix(x/(1/10))*(1/10);
subplot(223);
plot2d2(x);
title('1.2.3');
xlabel('n');
ylabel('xq(n)');
```

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