# Assignment Number: 3.4

# Problem Statement:

Write a matlab code to add,sub,multiply or divide two complex numbers as per the user’s choice.

# Inputs :

Variables are the real and imaginary part of the two complex numbers.

# Outputs:

Variable is sum,diff,product,quotient as per the choice provided for the inputed complex numbers.

# Pseudocode:

* Define b and d as the real parts of the coimplex no and a and c as the imaginary part of the two complex no respectively.
* Two complex no will be f=b+a\*1i and e=d+c\*1i
* Now ask the user what he/she wants to execute with these two nos.
* 1 for addition,2 for sub ,3 for multiplication and 4 for division.
* Perform the inputed action.
* stop

# Program :oper\_calc.m

% Script File: oper\_calc

% Purpose: Calculate the result according to the value entered.

% Record of Revision:

% Akash jaiswal 15/09/2015 Original

% Variable declaration

% Input Variables

% a= real part of first complex number

% b= imaginary part of first complex number

%c=real part of second complex number

%d=imaginary part of secnd complex number.

% Output Variable

% Z=the result

%%

clc

clear all

close all

a=input('Enter the real part of first complex number: ');

b=input('Enter the imaginary part of first complex number: ');

c=input('Enter the real part of second complex number: ');

d=input('Enter the imaginary part of second complex number: ');

x=a+1j\*b;

y=a+1j\*d;

value=input('Enter the required arithmatic operation, Add:1, Subtract:2, Multiply:3, Division:4:- ');

switch(value)

case{1}

Z=x+y;

case{2}

Z=x-y;

case{3}

Z=x\*y;

case{4}

Z=x/y;

otherwise

Z=0;

disp('INVALID ARITHMATIC OPERATION!!! ');

end

disp(['The result is ',num2str(Z)]);

# Test Results :

Enter the real part of first complex number: 5

Enter the imaginary part of first complex number: 5

Enter the real part of second complex number: 5

Enter the imaginary part of second complex number: 5

Enter the required arithmatic operation, Add:1, Subtract:2, Multiply:3, Division:4:- 3

The result is 0+50i