**GRAPHIC USER INTERFACE**

function varargout = GUI(varargin)

% GUI MATLAB code for GUI.fig

%      GUI, by itself, creates a new GUI or raises the existing

%      singleton\*.

%

%      H = GUI returns the handle to a new GUI or the handle to

%      the existing singleton\*.

%

%      GUI('CALLBACK',hObject,eventData,handles,...) calls the local

%      function named CALLBACK in GUI.M with the given input arguments.

%

%      GUI('Property','Value',...) creates a new GUI or raises the

%      existing singleton\*.  Starting from the left, property value pairs are

%      applied to the GUI before GUI\_OpeningFcn gets called.  An

%      unrecognized property name or invalid value makes property application

%      stop.  All inputs are passed to GUI\_OpeningFcn via varargin.

%

%      \*See GUI Options on GUIDE's Tools menu.  Choose "GUI allows only one

%      instance to run (singleton)".

%

% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help GUI

% Last Modified by GUIDE v2.5 30-Sep-2018 20:34:50

% Begin initialization code - DO NOT EDIT

gui\_Singleton = 1;

gui\_State = struct('gui\_Name',       mfilename, ...

                   'gui\_Singleton',  gui\_Singleton, ...

                   'gui\_OpeningFcn', @GUI\_OpeningFcn, ...

                   'gui\_OutputFcn',  @GUI\_OutputFcn, ...

                   'gui\_LayoutFcn',  [] , ...

                   'gui\_Callback',   []);

if nargin && ischar(varargin{1})

    gui\_State.gui\_Callback = str2func(varargin{1});

end

if nargout

    [varargout{1:nargout}] = gui\_mainfcn(gui\_State, varargin{:});

else

    gui\_mainfcn(gui\_State, varargin{:});

end

% End initialization code - DO NOT EDIT

% --- Executes just before GUI is made visible.

function GUI\_OpeningFcn(hObject, eventdata, handles, varargin)

% This function has no output args, see OutputFcn.

% hObject    handle to figure

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

% varargin   command line arguments to GUI (see VARARGIN)

% Choose default command line output for GUI

handles.output = hObject;

% Update handles structure

guidata(hObject, handles);

% UIWAIT makes GUI wait for user response (see UIRESUME)

% uiwait(handles.figure1);

% --- Outputs from this function are returned to the command line.

function varargout = GUI\_OutputFcn(hObject, eventdata, handles)

% varargout  cell array for returning output args (see VARARGOUT);

% hObject    handle to figure

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure

varargout{1} = handles.output;

% --- Executes on button press in pushbutton1.

function pushbutton1\_Callback(hObject, eventdata, handles)

% hObject    handle to pushbutton1 (see GCBO)

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

axes(handles.axes1);

a=imread('A:\Engineering\BE\DIP\image.jpg');

b=imread('A:\Engineering\BE\DIP\image1.jpg');

imshow(a);

title('Image A');

% --- Executes on button press in pushbutton2.

function pushbutton2\_Callback(hObject, eventdata, handles)

% hObject    handle to pushbutton2 (see GCBO)

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

axes(handles.axes2);

a=imread('A:\Engineering\BE\DIP\image.jpg');

b=imread('A:\Engineering\BE\DIP\image1.jpg');

imshow(b);

title('Image B');

% --- Executes on button press in pushbutton3.

function pushbutton3\_Callback(hObject, eventdata, handles)

% hObject    handle to pushbutton3 (see GCBO)

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

axes(handles.axes3);

a=imread('A:\Engineering\BE\DIP\image.jpg');

b=imread('A:\Engineering\BE\DIP\image1.jpg');

b = imresize(b,[768 1366]);

c = imsubtract(a,b);

imshow(c);

title('A-B');

% --- Executes on button press in pushbutton4.

function pushbutton4\_Callback(hObject, eventdata, handles)

% hObject    handle to pushbutton4 (see GCBO)

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

axes(handles.axes4);

a=imread('A:\Engineering\BE\DIP\image.jpg');

b=imread('A:\Engineering\BE\DIP\image1.jpg');

b = imresize(b,[768 1366]);

d = imadd(a,b);

imshow(d);

title('A+B');

% --- Executes on button press in pushbutton5.

function pushbutton5\_Callback(hObject, eventdata, handles)

% hObject    handle to pushbutton5 (see GCBO)

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

axes(handles.axes5);

a=imread('A:\Engineering\BE\DIP\image.jpg');

b=imread('A:\Engineering\BE\DIP\image1.jpg');

b = imresize(b,[768 1366]);

e = imdivide(a,b);

imshow(e);

title('A/B');

% --- Executes on button press in pushbutton6.

function pushbutton6\_Callback(hObject, eventdata, handles)

% hObject    handle to pushbutton6 (see GCBO)

% eventdata  reserved - to be defined in a future version of MATLAB

% handles    structure with handles and user data (see GUIDATA)

axes(handles.axes6);

a=imread('A:\Engineering\BE\DIP\image.jpg');

b=imread('A:\Engineering\BE\DIP\image1.jpg');

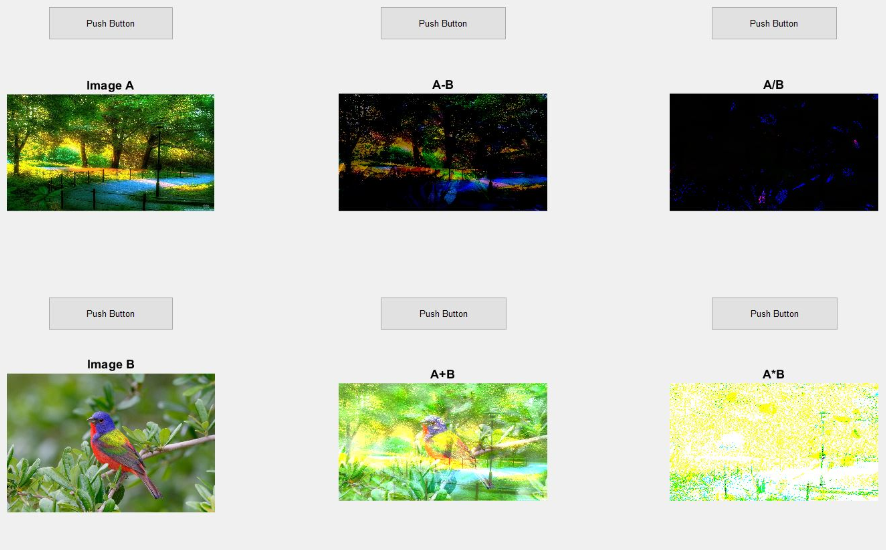
b = imresize(b,[768 1366]);

f = immultiply(a,b);

imshow(f);

title('A\*B');

**OUTPUT :**

****