dataset = load('C:\Users\KIRTHI\Desktop\i.txt');

display("Enter the following attributes to predict the class of IRIS flower");

s\_l = str2double(input("Enter the sepal\_length in cms only\n","s"));

s\_w = str2double(input("Enter the sepal\_width in cms only\n","s"));

p\_l = str2double(input("Enter the petal\_length in cms only\n","s"));

p\_w = str2double(input("Enter the petal\_width in cms only\n","s"));

flower\_input = [s\_l,s\_w,p\_l,p\_w];

len = size(dataset);

row = len(1);

col = len(2);

manhattan\_distance\_and\_class = zeros(row,2);

for i=1:row

sum = 0;

for j=1:col - 1

sum = sum + abs(dataset(i,j) - flower\_input(j));

endfor

manhattan\_distance\_and\_class(i,1) = sum;

manhattan\_distance\_and\_class(i,2) = dataset(i,5);

endfor

#display(manhattan\_distance\_and\_class);

l = len(1);

#sorting

for i=1:1:l-1

for j=1:1:l-1

min = manhattan\_distance\_and\_class(j,1);

clas = manhattan\_distance\_and\_class(j,2);

if manhattan\_distance\_and\_class(j+1,1) < min

temp\_dis = manhattan\_distance\_and\_class(j,1);

temp\_class = manhattan\_distance\_and\_class(j,2);

manhattan\_distance\_and\_class(j,1) = manhattan\_distance\_and\_class(j+1,1);

manhattan\_distance\_and\_class(j,2) = manhattan\_distance\_and\_class(j+1,2);

manhattan\_distance\_and\_class(j+1,1) = temp\_dis;

manhattan\_distance\_and\_class(j+1,2) = temp\_class;

endif

endfor

endfor

#display(manhattan\_distance\_and\_class);

req = manhattan\_distance\_and\_class;

k = 3;

count\_0 = 0;

count\_1 = 0;

count\_2 = 0;

if(k == 1)

result = req(1,2);

if (result == 0)

display('Iris\_Setosa');

elseif(result == 1)

display('Iris\_Versicolour');

else

display(" Iris\_Virginica");

endif

else

for iter=1:k

result = req(1,2);

if(result == 0)

count\_0 = count\_0 + 1;

elseif(result == 1)

count\_1 = count\_1+1;

else

count\_2 = count\_2+1;

endif

endfor

if(count\_0 > count\_1 && count\_0 > count\_2)

display("Iris Setosa");

elseif(count\_1 > count\_0 && count\_1 > count\_2)

display("Iris Versicolour");

elseif(count\_2 > count\_0 && count\_2 > count\_1)

display("Iris-Virginica");

endif

endif