**SOFT COMPUTING LAB PRACTICAL**

**AIM :** Write a program to implement linear separability for OR function.

**CODE :**

import numpy as np

import matplotlib as plt

x = np.array([0,1])

y = np.array([0,1])

plt.pyplot.scatter(x,y,c='red')

x = np.array([1,0])

y = np.array([0,1])

plt.pyplot.scatter(x,y,c="blue")

plt.pyplot.xlabel('Input 1')

plt.pyplot.ylabel('Input 2')

w=-1

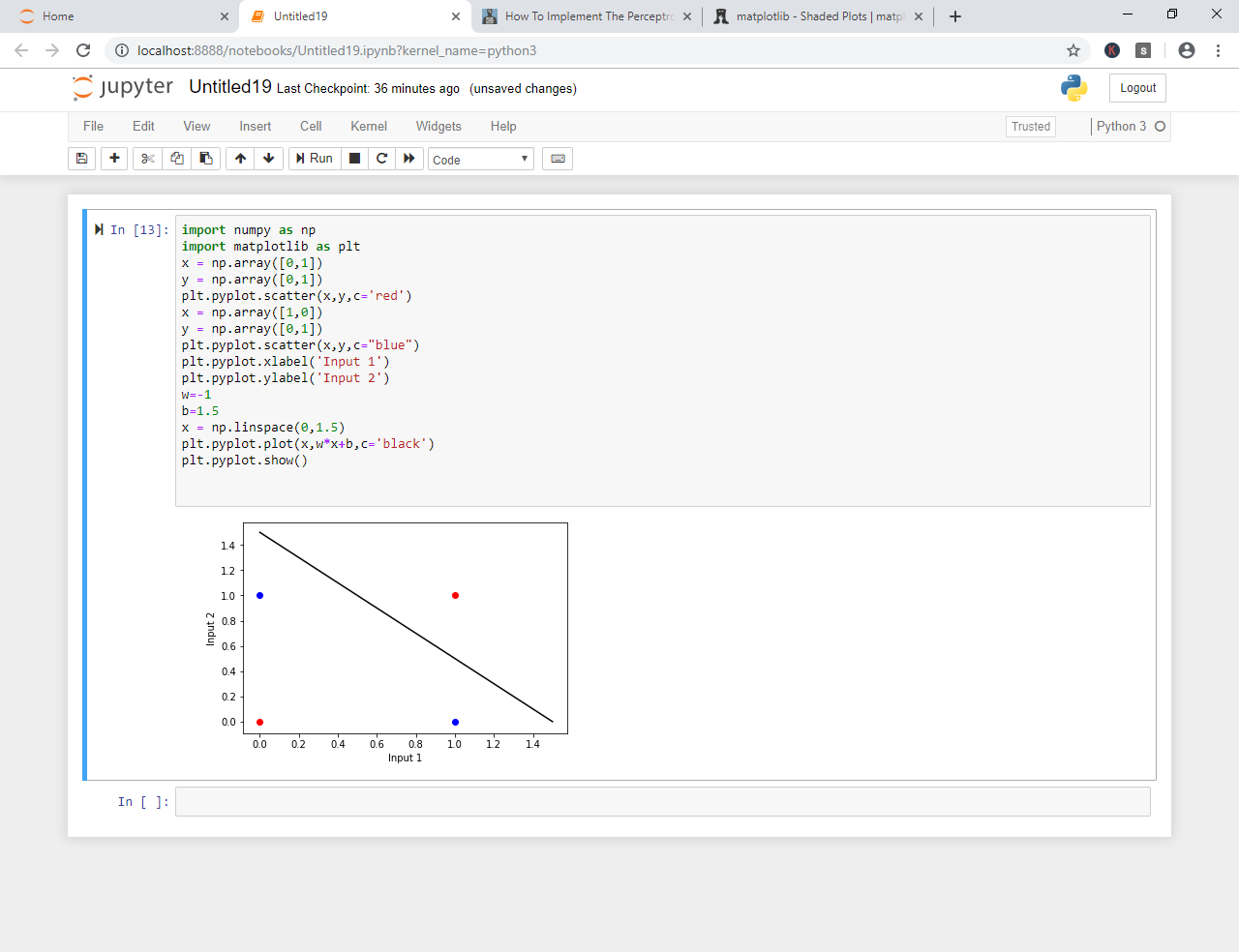
b=1.5

x = np.linspace(0,1.5)

plt.pyplot.plot(x,w\*x+b,c='black')

plt.pyplot.show()

**OUTPUT :**

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**AIM :** Write a program to implement linear separability for AND function .

**CODE:**

import numpy as np

import matplotlib as plt

x = np.array([0,1,0])

y = np.array([0,0,1])

plt.pyplot.scatter(x,y,c='red')

plt.pyplot.scatter(1,1,c="blue")

plt.pyplot.xlabel('Input 1')

plt.pyplot.ylabel('Input 2')

w=-1

b=1.5

x = np.linspace(0,1.5)

plt.pyplot.plot(x,w\*x+b,c='black')

plt.pyplot.show()

**OUTPUT:**

