Practical 8

Q.Write a program to enter a vector b and find the projection of b orthogonal to a given vector v.

def dotProduct(b,v):

pro=0

for i in range(len(b)):

s=b[i]\*v[i]

pro=pro+s

return pro

b=[]

v=[]

n=int(input("How many elements you want?:"))

print("Enter ",n,"values for b:")

for i in range (n):

l=int(input())

b.append(l)

print("Enter ",n,"values for v:")

for i in range(n):

m=int(input())

v.append(m)

print("b:",b)

print("v:",v)

pro=dotProduct(b,v)/dotProduct(v,v)

new=[]

for i in range(len(v)):

new.append(v[i]\*pro)

print("Projection of vector:",new)

Outout:

