CODE:

import pandas as pd

data = pd.read\_csv('Sales.csv')

a = data["BookingID"].values

b = data["Quantity"].values

c= data["Discount"].values

p = data["SaleStatus"].values

count = 0

for i in a:

    count += 1

inpl =input("Enter Booking id (1/2): ")

inp2 =input("Enter qty (1/2): ")

inp3 =input("Enter disc (1/2): ")

proby = 0

probn=0

for i in p:

    if(i== 'Yes'):

        proby += 1

    else:

        probn+= 1

proy = proby/count

pron = proby/count

phy = 0

phn = 0

ploy = 0

plon = 0

pshy = 0

pshn = 0

ply = 0

pln = 0

p18y = 0

p18n = 0

p13y = 0

p13n = 0

x = 0

for j in a:

    k=x

    if(j== "1"):

     if(p[k] == 'Yes'):

        phy += 1

     else:

        phn += 1

    elif(j== "2"):

     if(p[k] == 'Yes'):

        ploy += 1

    else:

        plon += 1

    x += 1

x = 0

for j in b:

 k=x

 if(j=="1"):

    if(p[k] == 'Yes'):

     pshy += 1

    else:

     pshn += 1

 elif(j == "2"):

     if(p[k] == 'Yes'):

        ply += 1

     else:

        pln += 1

 x += 1

X=0

for j in c:

 k= x

 if(j == "1"):

    if(p[k] == 'Yes'):

        p18y += 1

    else:

        p18n += 1

 elif(j=="2"):

        if(p[k] == 'Yes'):

            p13y += 1

        else:

            p13n+= 1

 x += 1

x = 0

phy = phy/(count\*proy)

phn = phn/(count\*pron)

ploy = ploy/(count\*proy)

plon = plon/(count\*pron)

pshy = pshy/(count\*proy)

pshn = pshn/(count\*pron)

ply = ply/(count\*proy)

pln = pln /(count\*pron)

p18y=p18y/(count\*proy)

p18n=p18n/(count\*pron)

p13y=p13y/(count\*proy)

p1on = plon/(count\*pron)

print("The probability of booking being done ",proy)

print("The probability of booking not being done ",pron)

# print("The probability of High rated movie being watched ",phy)

# print("The probability of High rated movie not being watched ",phn)

# print("The probability of Low rated movie being watched ",ploy)

# print("The probability of Low rated movie not being watched ",plon)

# print("The probability of qty being 1 ",pshy)

# print("The probability of qty not being 1 ",pshn)

# print("The probability of qty being 2 ",ply)

# print("The probability of qty not being 2 ",pln)

# print("The probability of discount being given ",p18y)

# #print("The probability of  ",p18n)

# print("The probability of disocunt not being given ",p13y)

# #print("The probability of 13+ age group movie not being watched ",p13n)

if(inpl == '1'):

    if(inp2 == '1'):

         if(inp3 == '2'):

            probY = phy\*pshy\*p13y\*proy

            probN = phn\*pshn\*p13n\*pron

         elif(inp3 == "2"):

            probY = phy\*pshy\*p18y\*proy

            probN = phn\*pshn\*p18n\*pron

         elif(inp2 == '2'):

            if(inp3 == '2'):

                probY = phy\*ply\*p13y\*proy

                probN = phn\*pln\*p13n\*pron

            elif(inp3 == "1"):

                probY = phy\*ply\*p18y\*proy

                probN = phn\*pln\*p18n\*pron

            elif(inpl == '2'):

             if(inp2 == '1'):

                if(inp3 == '2'):

                    probY = ploy\*pshy\*p13y\*proy

                    probN = plon\*pshn\*p13n\*pron

                elif(inp3 == '1'):

                    probY = ploy\*pshy\*p18y\*proy

                    probN = plon\*pshn\*p18n\*pron

                elif(inp2 == '2'):

                 if(inp3 == '2'):

                    probY = ploy\*ply\*p13y\*proy

                    probN = plon\*pln\*p13n\*pron

                elif(inp3 == "1"):

                    probY = ploy\*ply\*p18y\*proy

                    probN = plon\*pln\*p18n\*pron

print("The probability of sale status yes: ",proby/17)

print("The probability of sale status:",probn/17)

if(proby> probn):

    print("Will it be bought: Yes")

else:

    print("Will it be bought: No")

OUTPUT: 