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In [2]: import numpy as np
import pandas as pd
import csv
import matplotlib.pyplot as plt
def probability(DATA):
    n=len(DATA)
    yescount=0
    nocount=0
    for line in DATA:
        if line[-1]=='yes':
            yescount+=1
        else:
            nocount+=1
    pyes=yescount/n
    pno=nocount/n
    return pyes,pno,yescount,nocount;

def Condition(DATA,x,col,yescount,nocount):
    xyes=0
    xno=0
    for line in DATA:
        if line[col]==x:
            if line[-1]=='yes':
                xyes+=1
            else:
                xno+=1
    pxyes=xyes/yescount
    pxno=xno/nocount
    return pxyes,pxno

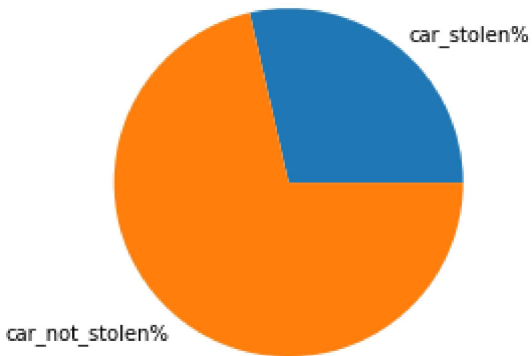
def main():
    file=r"C:\Users\AMC College\Desktop\DATA SET\car (2).csv"
    temp=pd.read_csv(file)
    display(temp)
    data=[]
    fd=csv.reader(open(file))
    for line in fd:
        data.append(line)
    DATA=data[1:]
    print("Enter your new car feature color,type,origin")
    x,y,z=input().split()
    pyes,pno,yescount,nocount=probability(DATA)
    pxyes,pxno=Condition(DATA,x,0,yescount,nocount)
    pyyes,pyno=Condition(DATA,y,1,yescount,nocount)
    pzyes,pzno=Condition(DATA,z,2,yescount,nocount)
    resyes=pxyes*pyyes*pzyes*pyes
    resno=pxno*pyno*pzno*pno
    Percentageyes=(resyes/(resyes+resno))*100
    Percentageno=(resno/(resyes+resno))*100
    Pex=[Percentageyes,Percentageno]
    label=["car_stolen%", "car_not_stolen%"]
    plt.pie(Pex,labels=label)
    plt.show()
    print("Percentages_yes=",Percentageyes,"Percentage_no=",Percentageno)

```

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main()
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	color	type	origin	stolen
0	red	sports	domestic	yes
1	red	sports	imported	no
2	yellow	suv	imported	yes
3	red	sports	domestic	yes
4	red	sports	imported	no
5	yellow	suv	imported	yes
6	yellow	suv	imported	yes
7	yellow	sports	imported	no
8	red	sports	domestic	no
9	red	sports	imported	no

Enter your new car feature color,type,origin  
red sports domestic



Percentages\_yes= 28.571428571428577 Percentage\_no= 71.42857142857143

In [ ]: