import pandas as pd

import numpy as np

data = pd.read\_csv(r"C:\Users\Akshaya Agarwal\Desktop\christ\python\06.09.2022 Q8\Q8\_MortalityDataset.csv")

variables=len(data.axes[0])

observation=len(data.axes[1])

print("How many variables and observation does the dataset have?")

print(variables)

print(observation)

print("1b.a.All rows and first three columns")

print(data.iloc[0:200,0:3])

print("First 10 rows and all columns")

print(data.iloc[0:10,0:])

print("10 to 15 rows of first and 4th column")

print(data.iloc[10:15,1:4])

print("Observation of 5th row 2nd column")

print(data.iloc[5:6,2:3])

print("1)b.Number of variables and observation does data set have")

print("Find Structure of the created data frame")

print(data.info(200))

print("\nD. 5th row 2nd column")

print(data.iloc[4:5,2:3])

df=pd.DataFrame(data['AGE'])

print(df.sum())

print(df.count())

print(df.mean())

print(df.median())

print(df.median())

print(df.std())

print(df.min())

print(df.max())

print(df.prod())

print(df.cumsum())

print("unique blood groups")

df1=pd.DataFrame(data['BLOOD'].unique())

print(df1)

print("Unique smoke categories")

df2=pd.DataFrame(data['SMOKE'].unique())

print(df2)

print("\n(h)\nCholesterol level above 300 - ")

print((data.query("CHOL > 300")).shape[0])

print("\n(i)\nMean height value for mortality is alive - ")

print((data.query("MORT == 'alive'"))["HEIGHT"].mean())

df3=data[data['BLOOD']=='o']

df4=df3[df3['HEIGHT']==df3['HEIGHT'].max()]

print("Tallest of blood group 'O' 51 is the column name")

print(df4['AGE'])

print("How many nonsmokers are alive who are below 40 years")

df5=data[data['AGE']<40]

df6=df5[df5['SMOKE']=='nonsmo']

print(df6[df6['MORT']=='alive']['MORT'].count())

import matplotlib.pyplot as plt

da=list(data.groupby('BLOOD')['HEIGHT'].mean())

plt.pie(da)

plt.legend(list(data['BLOOD'].unique()))

plt.show()

plt.scatter(data['HEIGHT'],data['WEIGHT'],alpha=1)

plt.xlabel="height"

plt.ylabel="weight"

plt.show()

data['HEIGHT'].plot.line(xlabel='Height',ylabel='freq',color='r')

plt.show()

data['HEIGHT'].plot.line()

plt.show()

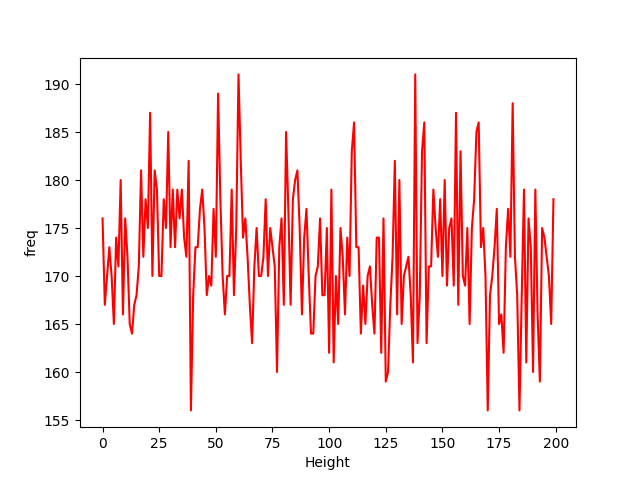
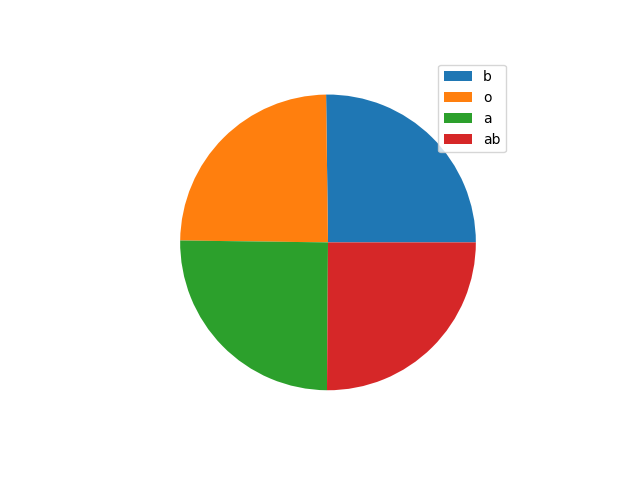
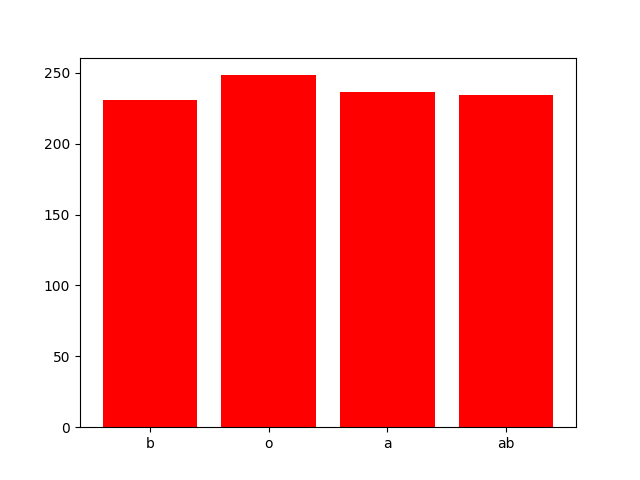
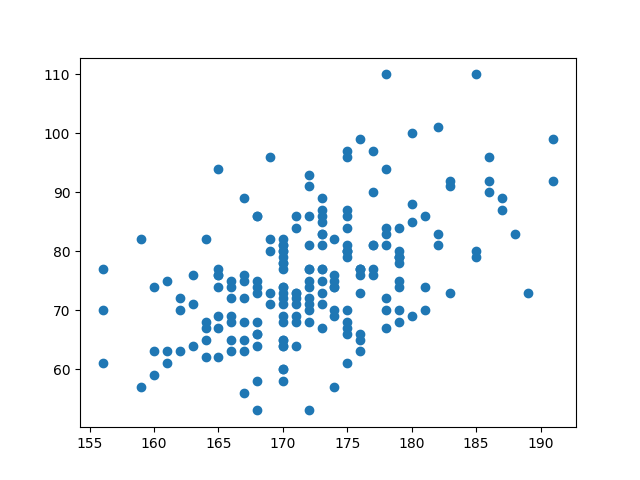
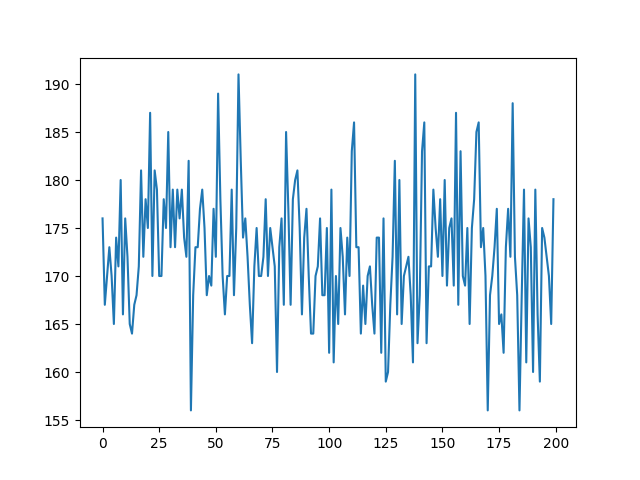
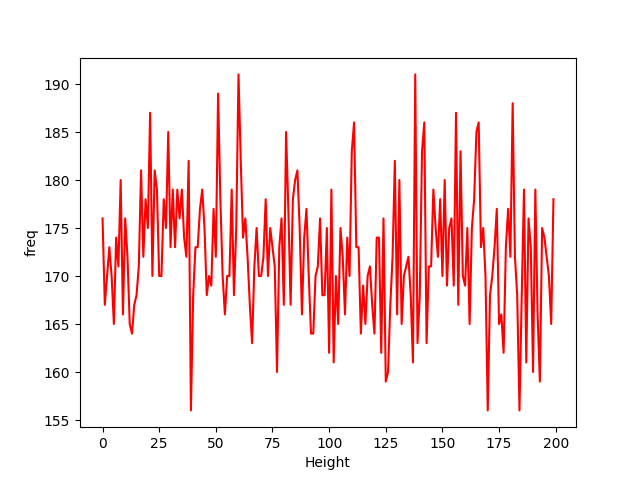
plt.bar(list(data['BLOOD'].unique()),data.groupby('BLOOD')['CHOL'].mean(),color='r')

plt.ylabel='BLOOD GRP'

plt.xlabel='cholesterol'

plt.show()

Graphs:

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