Artificial Intelligence and Machine Learning

Prediction Of smoker Or Not

In this project, we will work with smoke.csv dataset to develop a machine learning algorithm that predicts whether the person is smoker or not.

Problem Statement

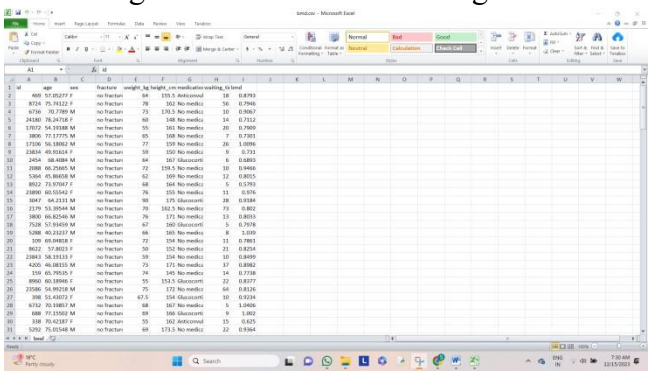
Develop a model that has the capacity of predicting fracture by making use of the information provided in fracture Dataset

Dataset

The dataset used in this project consists of 8 variables: ‘Gender’, 'Height', 'Weight', 'Index','BMD’,’Medication’,’Waiting Time’ and ‘Age’.The main variable we are interested is 'fracture’. This variable predicts the fracture of the person based on the inputs given in dataset

1. ID	Enter the id number
2. Age	Enter the age
3. Sex	Enter the gender
4. Weight	Enter the weight
5. Height	Enter the height
6. Waiting time	Enter the waiting time
7. BMD	Enter the bmd

The overview of the original dataset is shown in figure with its original features:



Algorithm –Naive Bayes Algorithm

It is a very simple python program to implement. Multiple regression is like linear regression, but with more than one independent value, meaning that we try to predict a value based on two or more variables. Navie Bayes algoritnm is implemented using the GussianNB class from sklearn.linear_model library.

Programming Steps

•This project requires us to predict the weight of a person based on the given input dataset.

•First, we read the given dataset using pandas function.

•Then we print the inputs and output from csv file.

•Label encoding is used for ‘Sex’ and ‘Medication’ column.

•We initialize the model i.e., Navie Bayes Algorithm.

•We further implement this using Django in order for better representation

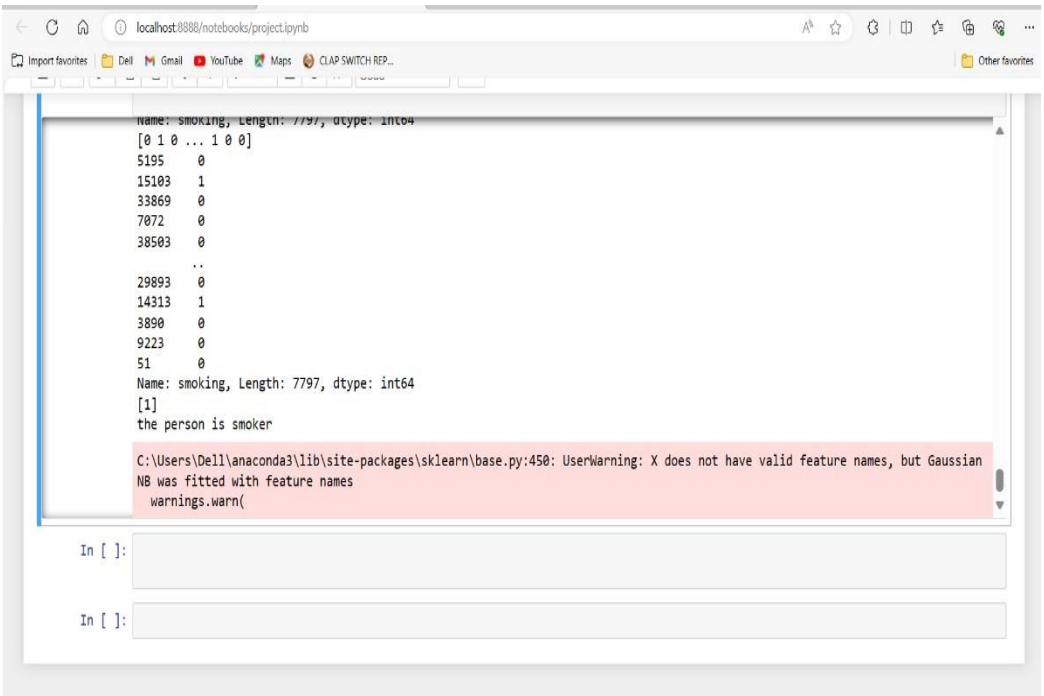
Code:

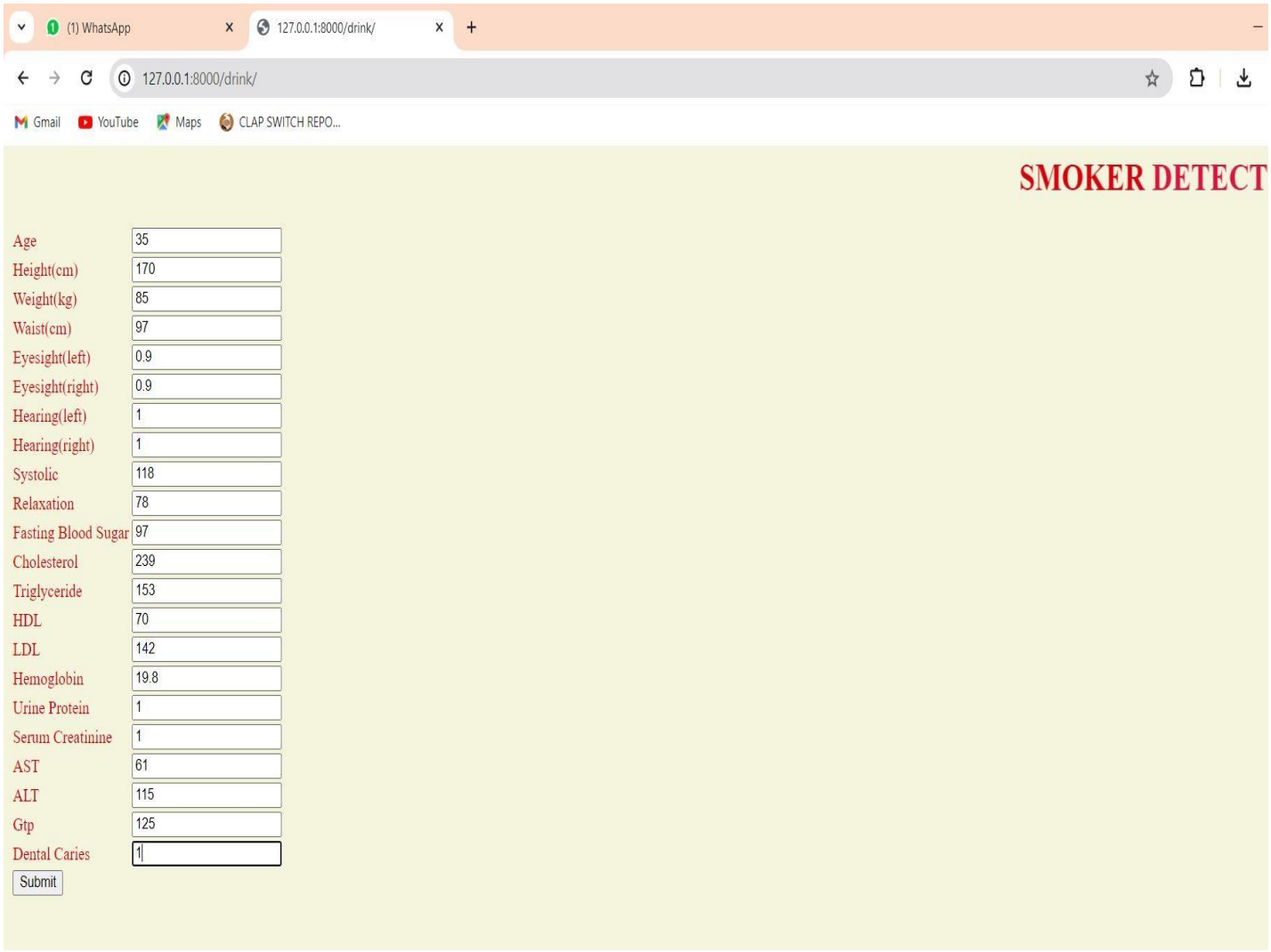
```
import pandas as pd

path="C:\\Users\\Dell\\Desktop\\Batch_04\\Data\\train_dataset.csv"

data=pd.read_csv(path)

print(data) print(data.info())


inputs=data.drop('smoking',axis=1

) output=data['smoking']

print(inputs) print(output)


import sklearn from sklearn.model_selection import

train_test_split

X_train, X_test, y_train, y_test = train_test_split(inputs,output,train_size=0.8)
```

```
print(X_train)

print(X_test)

print(y_train)

print(y_test)


from sklearn.naive_bayes import GaussianNB model=GaussianNB()

model.fit(X_train,y_train)

y_pred=model.predict(X_test

) print(y_pred) print(y_test)


#age=int(input("enter persons age:"))

#height(cm)=int(input("enter persons height:"))

#weight(kg)=int(input("enter persons weight:"))

#waist(cm)=int(input("enter persons waist:"))

#eyesight(left)=int(input("enter persons eyesight(left):"))

#eyesight(right)=int(input("enter persons eyesight(right):"))

#hearing(left)=int(input("enter persons hearing(left):"))

#hearing(right)=int(input("enter persons hearing(right):"))

#Systolic=int(input("enter persons Systolic:"))

#relaxation=int(input("enter persons Systolic relaxation:"))

#HDL=int(input("enter persons HDL:"))

#LDL=int(input("enter persons LDL:"))

#hemoglobin=int(input("enter persons hemoglobin:"))

#urine protein=int(input("enter persons urine protein:"))

#serum creatinine=int(input("enter persons serum creatinine:")) #AST=int(input("enter persons AST:"))

#ALT=int(input("enter persons ALt:"))
```

```
#Gtp=int(input("enter persons Gtp:"))

#dental caries=int(input("enter persons dental caries:"))


res=model.predict([[35,170,85,97,0.9,0.9,1,1,118,78,97,239,153,70,142,19.8,1,1,61,115,125,
1 ]])

print(res)


if res==1:

    print("the person is smoker") else:

    print("the person is not smoker")
```

OUTPUT:




(1) WhatsApp
127.0.0.1:8000/drink/
127.0.0.1:8000/drink/
Gmail
YouTube
Maps
CLAP SWITCH REPO...
SMOKER DETECT
Age 35
Height(cm) 170
Weight(kg) 85
Waist(cm) 97
Eyesight(left) 0.9
Eyesight(right) 0.9
Hearing(left) 1
Hearing(right) 1
Systolic 118
Relaxation 78
Fasting Blood Sugar 97
Cholesterol 239
Triglyceride 153
HDL 70
LDL 142
Hemoglobin 19.8
Urine Protein 1
Serum Creatinine 1
AST 61
ALT 115
Gtp 125
Dental Caries 1
Submit