Correction Activité 1

```
import pandas
from sklearn.preprocessing import MinMaxScaler
from sklearn.preprocessing import StandardScaler
import matplotlib.pyplot as plt

# Exercice 1
Columns = ['NumTimesPrg', 'PlGlcConc', 'BloodP', 'SkinThick',
'TwoHourSerIns', 'BMI', 'DiPedFunc', 'age', 'HasDiabetes']

dataframe = pandas.read_csv('pima-indians-diabetes.csv')

dataframe.columns=Columns

print(dataframe.shape) #taille de la matrice

print(dataframe.head(10)) #head(Nbre_ligne)

print(dataframe['BloodP'])

print(dataframe.describe())

array = dataframe.values
X = array[:,0:8]
print(X)
```

```
# Exercice 2
# Calculer la valeur médiane
tmp=dataframe['SkinThick']!=0
median_bmi = dataframe[tmp].median()

#substituer les valeurs nulles par la médiane
dataframe['SkinThick'] =
dataframe['SkinThick'].replace(0,median_bmi['SkinThick'])


#Exercice 3
scaler = MinMaxScaler(feature_range=(0, 1))
rescaledX = scaler.fit_transform(X)
print(rescaledX)



#Exercice 4
scaler = StandardScaler().fit(X)
rescaledX = scaler.transform(X)
print(rescaledX)
```