from sklearn.datasets import load\_diabetes

import matplotlib.pyplot as plt

data = load\_diabetes()

X = data.data

data.feature\_names

X = X[:, 4:6]

from sklearn.cluster import KMeans

kmeans = KMeans(n\_clusters=3, random\_state=42)

y\_means = kmeans.fit\_predict(X)

y\_means

print(len(X[y\_means ==0, 0]))

plt.figure(figsize=(20,10))

plt.scatter(X[y\_means == 0, 0], X[y\_means == 0, 1], c = 'red', label = 'cluster1')

plt.scatter(X[y\_means == 1, 0], X[y\_means == 1, 1], c = 'blue', label = 'cluster2')

plt.scatter(X[y\_means == 2, 0], X[y\_means == 2, 1], c = 'green', label = 'cluster3')

plt.title('K-Means Clustering')

plt.xlabel('s1')

plt.ylabel('s2')

plt.legend()

plt.show()