Create visualizations to showcase the analysis results. Use tools like Matplotlib, Plotly, or IBM Watson Studio for creating graphs and charts.

Code:

Step :1

# Import libraries

import matplotlib.pyplot as plt

import seaborn as sns

import pandas as pd

import numpy as np

from sklearn.linear\_model import LinearRegression

from sklearn.model\_selection import train\_test\_split

Step :2

# Import dataset

df = pd.read\_csv("data\_sona.csv")

print(df)

step :3

#print(df.head())

#print(df.tail(2))

Step:4

# Splitting dataset

x = df.iloc[:, :-1].values

y = df.iloc[:, 1].values

x\_train, x\_test, y\_train, y\_test = train\_test\_split(x, y, test\_size=0.3)

step:5

# Import and instantiate the algorithm

model = LinearRegression()

step:6

# Training the model

model.fit(x\_train, y\_train)

step:7

# Predicting the model

y\_predict = model.predict(x\_test)

plt.scatter(x\_test,y\_test,color = 'red')

plt.plot(x\_train,model.predict(x\_train),color = 'blue')

plt.title("duration vs calories(diet plan)")

plt.xlabel('duration')

plt.ylabel('calories')

plt.show()

output:

Duration Calories

0 60 409.1

1 60 479.0

2 60 340.0

3 45 282.4

4 45 406.0

.. ... ...

164 60 290.8

165 60 300.0

166 60 310.2

167 75 320.4

168 75 330.4

[169 rows x 2 columns]

Graph:

