Heights and Weights Dataset

A simple dataset that contains only the height (inches) and weights (pounds) of 25,000 different humans of 18 years of age. This dataset will is used to build a model that can predict the heights or weights of a new human

This dataset is available in the following link:

https://www.kaggle.com/datasets/burnoutminer/heights-and-weights-dataset

Questions:

1- Write a python code that reads the data from CSV file
2- Print the first 3 records
3- Print the column name, Non Null count and Data types
4- Draw the histogram of the height
5- Draw the scatter of the heights and weights
6- Change the height from inches into cm
7- Change the weight from pounds into kg
8- Save the updated data into a new CSV file along with old data
9- Read the new CSV file
10- Draw the histogram of the height in cm and the histogram of the weight in kg in the same Figure as subplot
11- Draw the scatter now of the heights(cm) and weights(kg), can you fit a line
12- Is there any good correlations between weight and height?

```python
import pandas as pd
import matplotlib.pyplot as plt

df = pd.read_csv('SOCR-HeightWeight.csv')
print(df.head(3))
print(df.info())

height= df['Height(Inches)']
plt.hist(height, 100)
plt.xlabel("Height in inches")
plt.ylabel("Number of Persons")
plt.show()

df.plot(kind = 'scatter', x = 'Height(Inches)', y='Weight(Pounds)')
plt.show()

df['Height(cm)'] = df['Height(Inches)'] * 2.54
df['Weight(kg)'] = df['Weight(Pounds)'] / 2.20462
df = df.round({'Height(cm)': 0, 'Weight(kg)': 0})
df.to_csv('heightweight_new.csv')

plt.subplot(1, 2, 1)
plt.hist(df['Height(cm)'], 100)
plt.xlabel("Height in cm")
plt.ylabel("Number of Persons")

plt.subplot(1, 2, 2)
plt.hist(df['Weight(kg)'], 100, color='red')
plt.xlabel("Weight in kg")
plt.ylabel("Number of Persons")

plt.tight_layout()
plt.show()

df.plot(kind = 'scatter', x = 'Height(cm)', y='Weight(kg)', color='g')
plt.show()

df = pd.read_csv('SOCR-HeightWeight.csv')
print(df.corr())
```