Program : 1

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Create CSV File for Product Selling for 6 Months and add at-least 5 Records for 5 different products.

(Prod\_Name, Jan ,Feb, Mar, Apr , May, Jun )

Create Python script to perform following task.

import csv

import pandas as pd

import matplotlib.pyplot as plt

header=['Prod\_Name','Jan','Feb','Mar','Apr','May','Jun']

data=[['Computer',90,98,97,90,93,120],['Cpu',100,120,130,120,110,90],['Hard Disk',300,340,340,345,300,400],['DVD',120,110,130,134,135,140],['Drive',80,89,87,90,100,100]]

with open('c:\sqlite3\csv\product.csv','w',newline='') as f:

w=csv.writer(f)

w.writerow(header)

w.writerows(data)

with open('c:\sqlite3\csv\product.csv','r') as f:

r=csv.reader(f)

for i in r:

print(i)

A. Read data in Dataframe.

df=pd.read\_csv('c:\sqlite3\csv\product.csv')

df

B. Add columns and calculate total\_sell, average\_sell.

df['total\_sell']=df.iloc[:,1:].sum(axis=1)

df['average\_sell']=df['total\_sell']/6

df

C. Plot Total sell and average sell together on line chart with proper Legends, titles and lables.

plt.plot(df['Prod\_Name'],df['total\_sell'])

plt.plot(df['Prod\_Name'],df['average\_sell'])

plt.xlabel('Product Name')

plt.ylabel('Product Sell')

plt.title('Product Total And Average Sell')

plt.legend(['Total sell','Average sell']);

D. Explain final dataframe to csv named sell\_analysis.csv

df.to\_csv('c:\sqlite\csv\sell\_analysis.csv',index=False)

Program : 2

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Sales (sid, year, totalsales)

Create above table into a SQLite database with appropriate constraints.

import sqlite3

import csv

import matplotlib.pyplot as plt

conn=sqlite3.connect('week8.db')

cursor=conn.cursor()

cursor.execute('''CREATE TABLE sales (sid INTEGER PRIMARY KEY,year INTEGER,totalsales INTEGER)''')

A. Insert at least 5-10 records into the sales table.

data=[(1,2023,120000),(2,2022,110000),(3,2021,100000),(4,2020,95000),(5,2019,90000),(6,2018,87000),(7,2017,85000),(8,2016,81000),(9,2015,80000),(10,2014,70000)]

cursor.executemany("INSERT INTO sales(sid,year,totalsales) VALUES(?,?,?)",data)

for i in cursor.execute("SELECT \* FROM sales"):

print(i)

conn.commit()

conn.close()

B. Export sales table data into sales.csv file.

with open("c:\sqlite3\csv\sales.csv",'w',newline='') as f:

r=csv.writer(f)

r.writerow(["sid","year","totalsales"])

r.writerows(data)

C. Write a python scripts that read the sales.csv file and plot a bar chart that shows totalsales of the year.

Also decorate the chart with appropriate title, lables, colours etc.

with open("c:\sqlite3\csv\sales.csv",'r',) as f:

r=csv.reader(f)

for i in r:

print(i)

plt.figure(figsize=(10,7))

plt.bar(df['year'],df['totalsales'],color='cyan')

plt.xlabel('YEAR')

plt.ylabel('TOTAL SELL')

plt.title('Total Sell ')

plt.xticks(df['year']);