**Product Demand Prediction (Case Study)**

A product company plans to offer discounts on its product during the upcoming holiday season. The company wants to find the price at which its product can be a better deal compared to its competitors. For this task, the company provided a dataset of past changes in sales based on price changes. You need to train a model that can predict the demand for the product in the market with different price segments.

1. Product\_Code

2. Wearhouse

3. Product\_Category

4. Date

5.Order\_Demand

I hope you now understand what kind of problem statements you will get for the product demand prediction task. In the section below, I will walk you through predicting product demand with machine learning using Python.

## Product Demand Prediction using Python

Let’s start by importing the necessary Python libraries and the dataset we need for the task of product demand prediction:

import pandas as pd

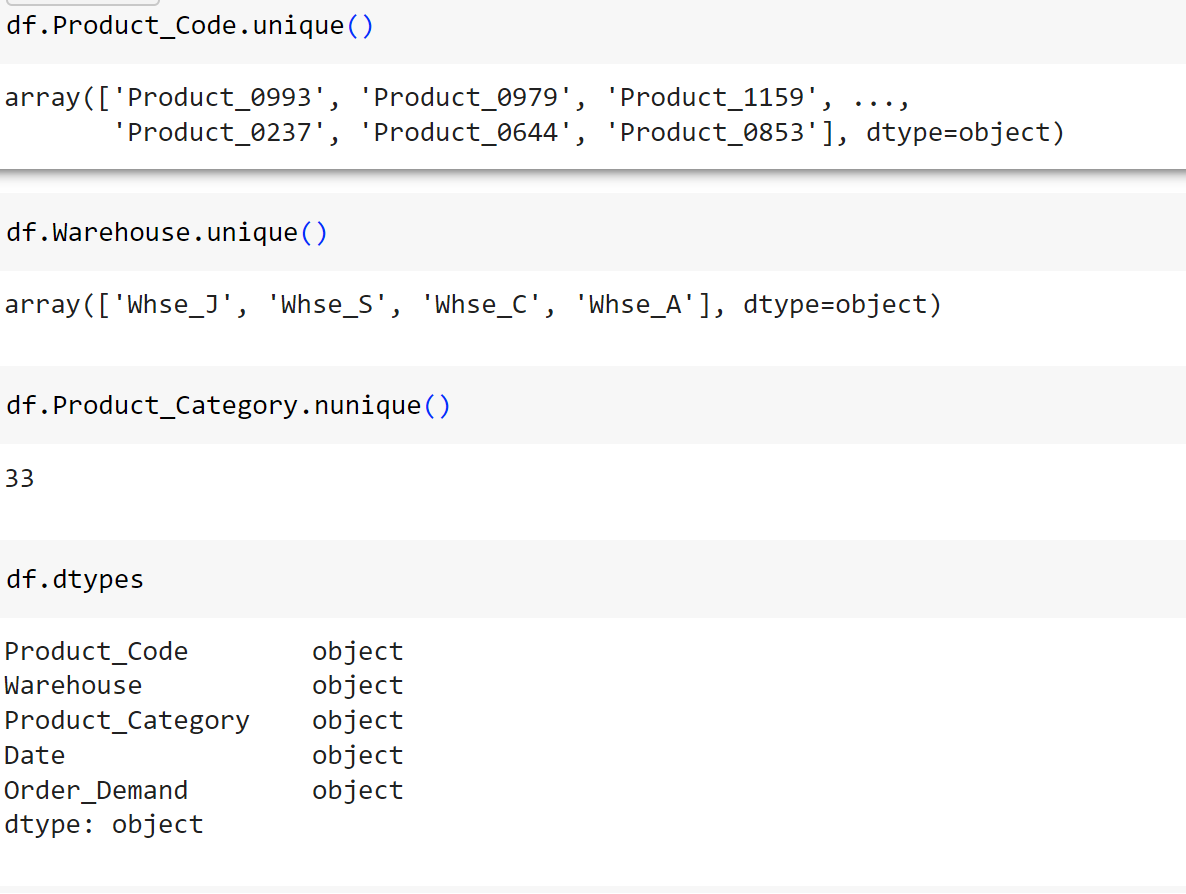
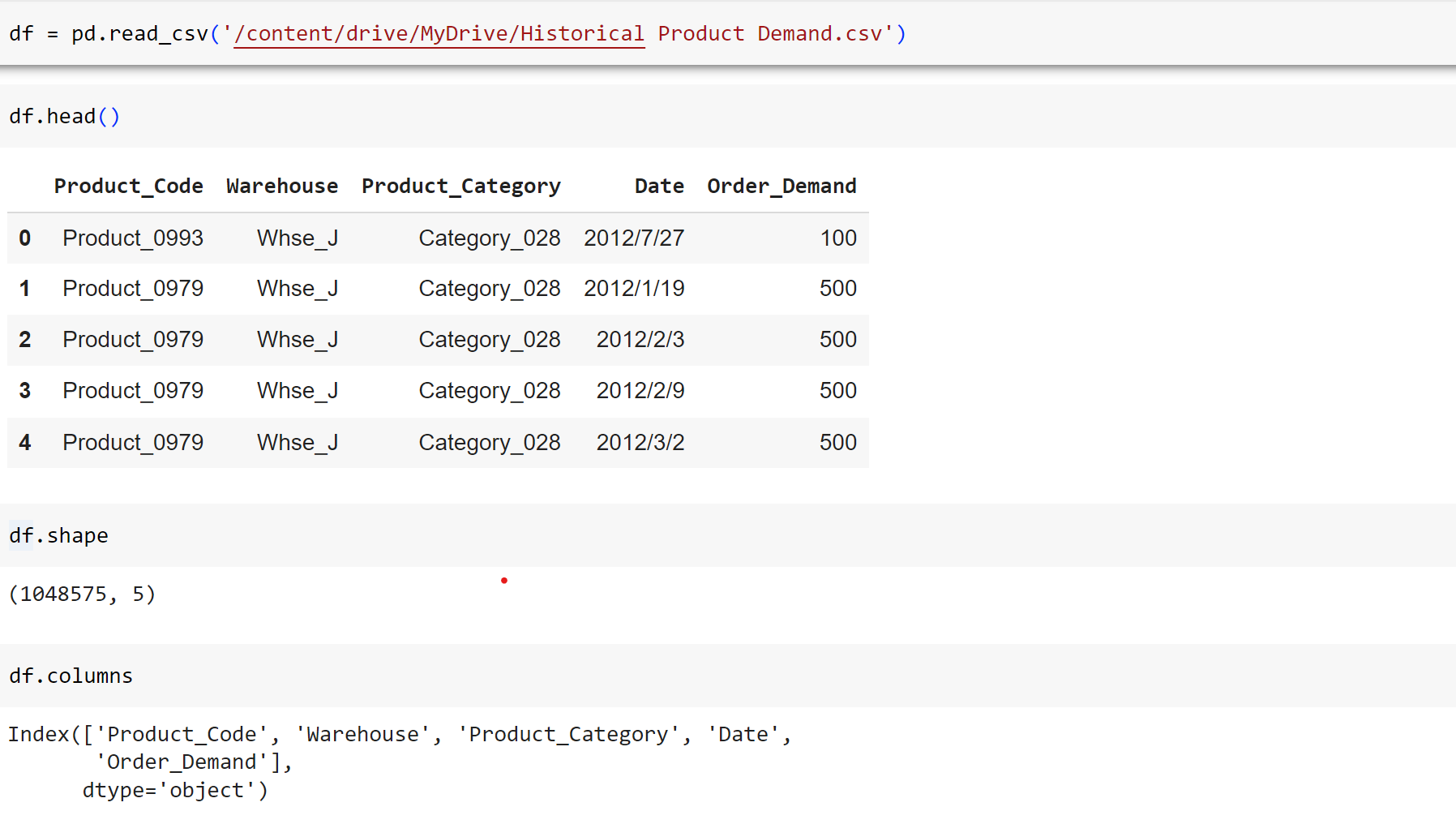
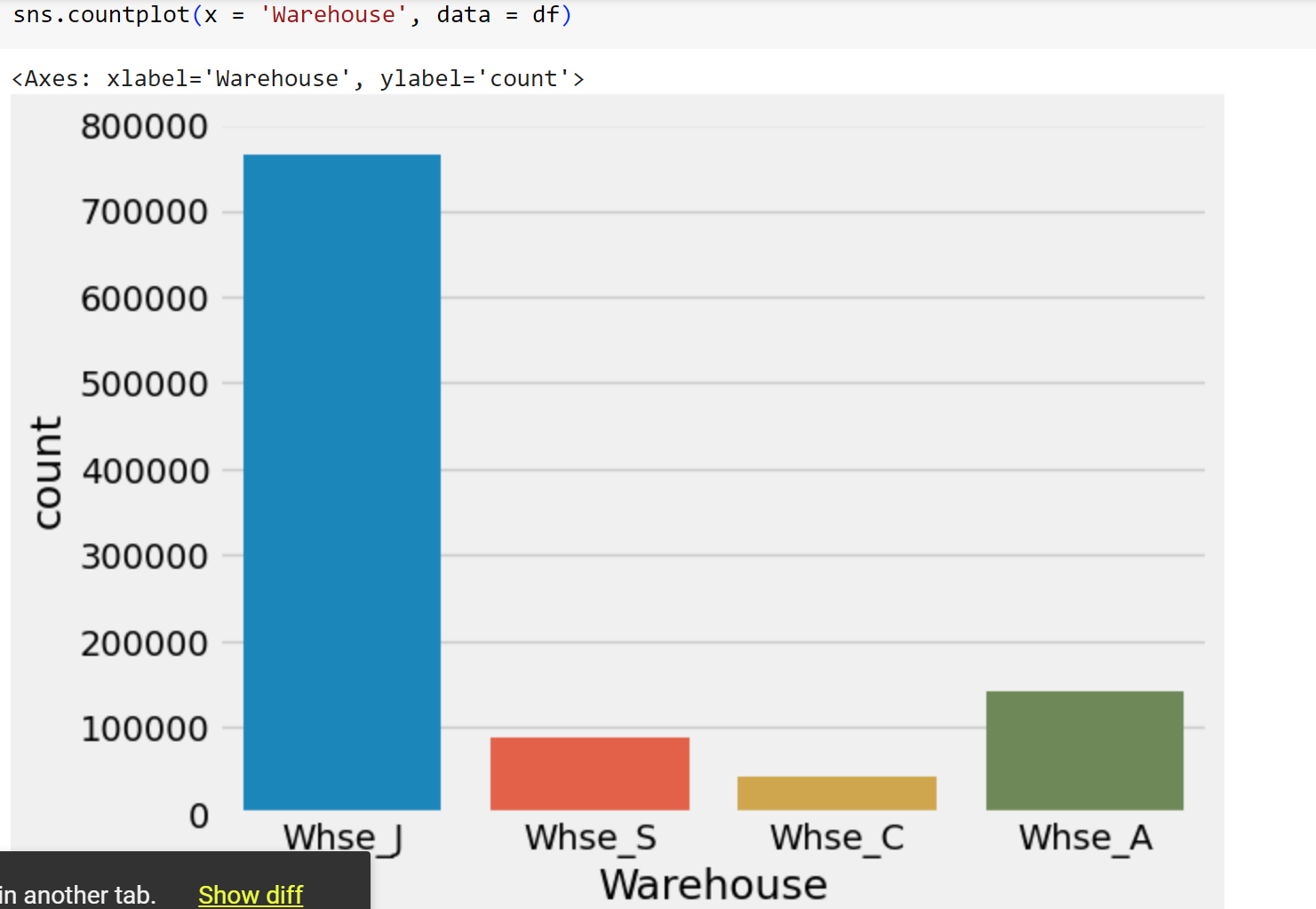
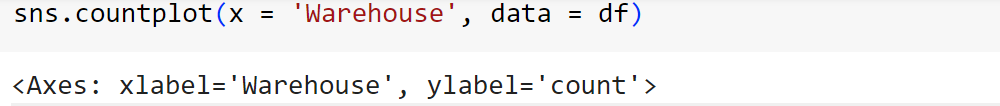
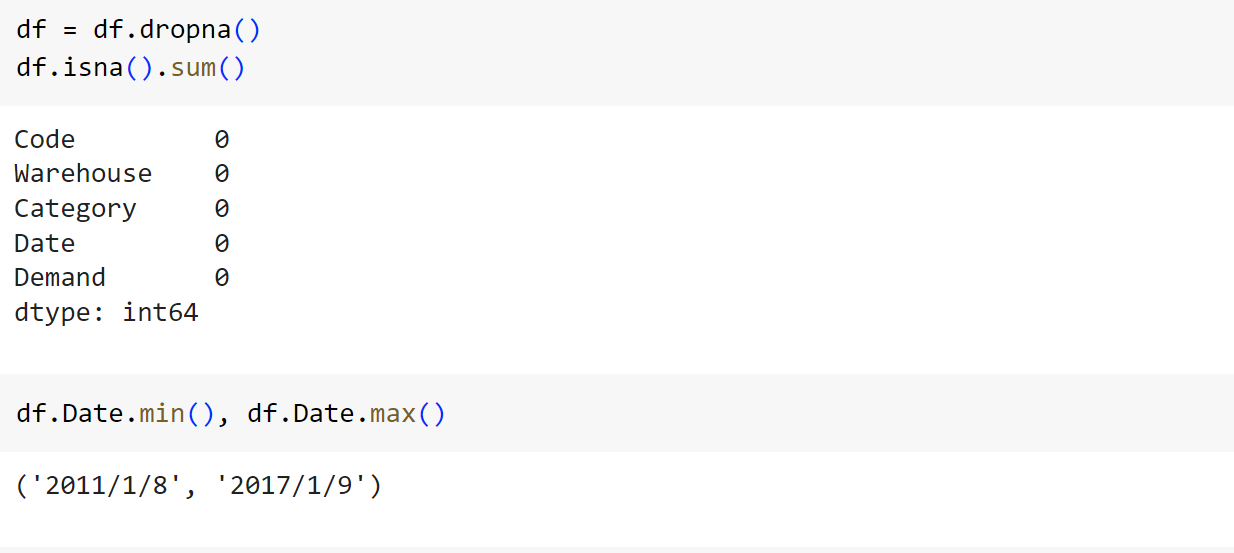
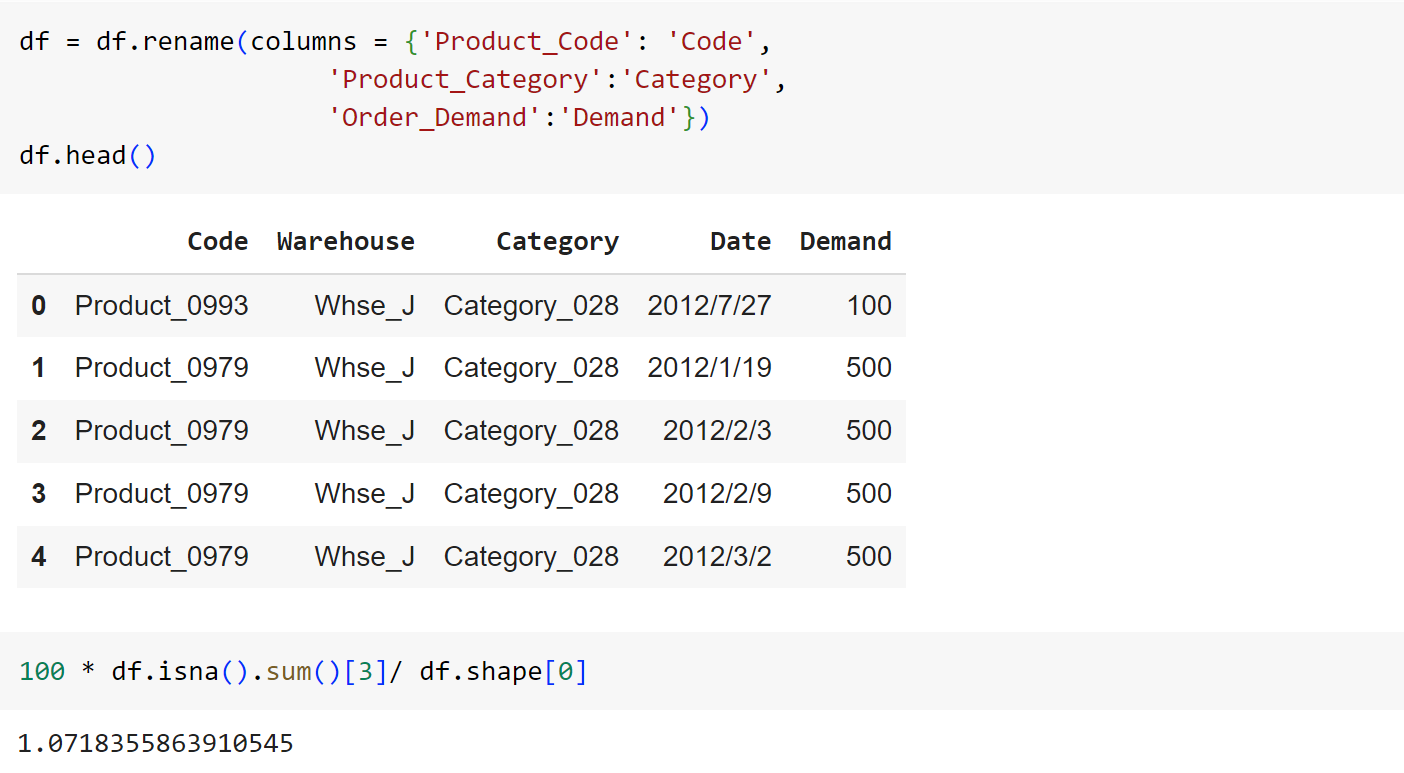
import numpy as np

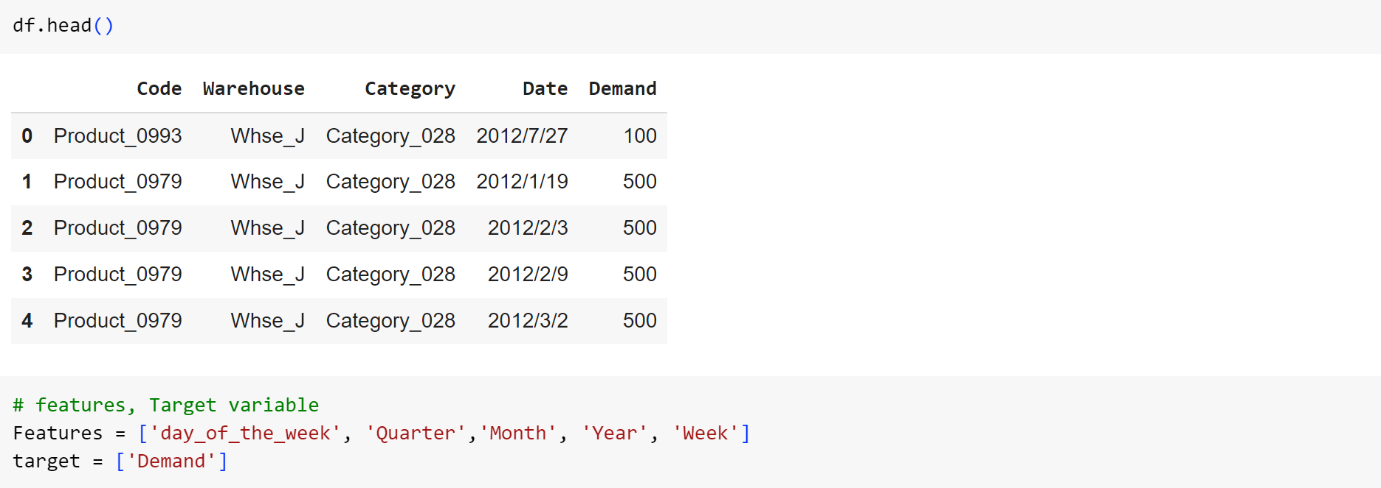
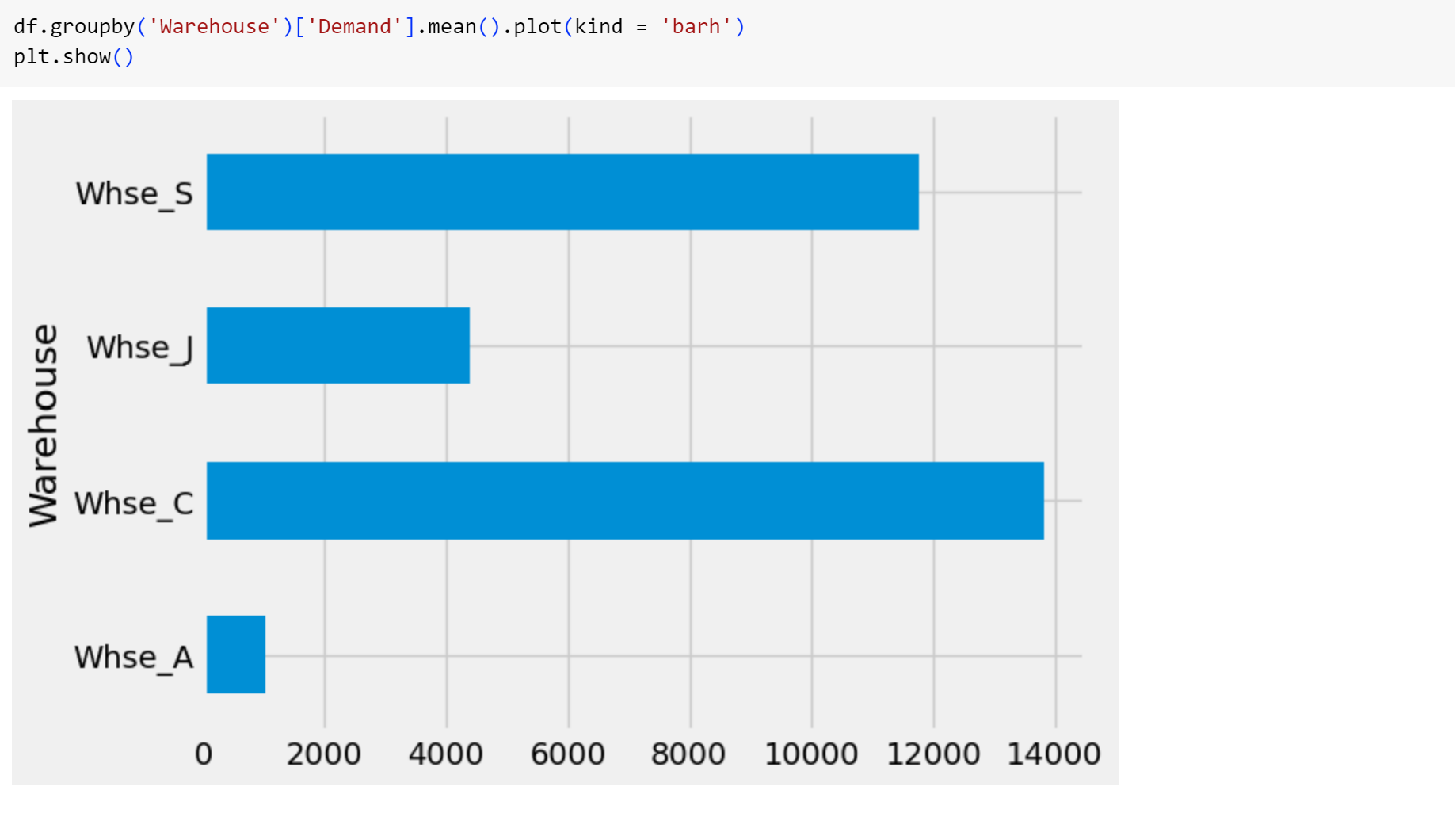
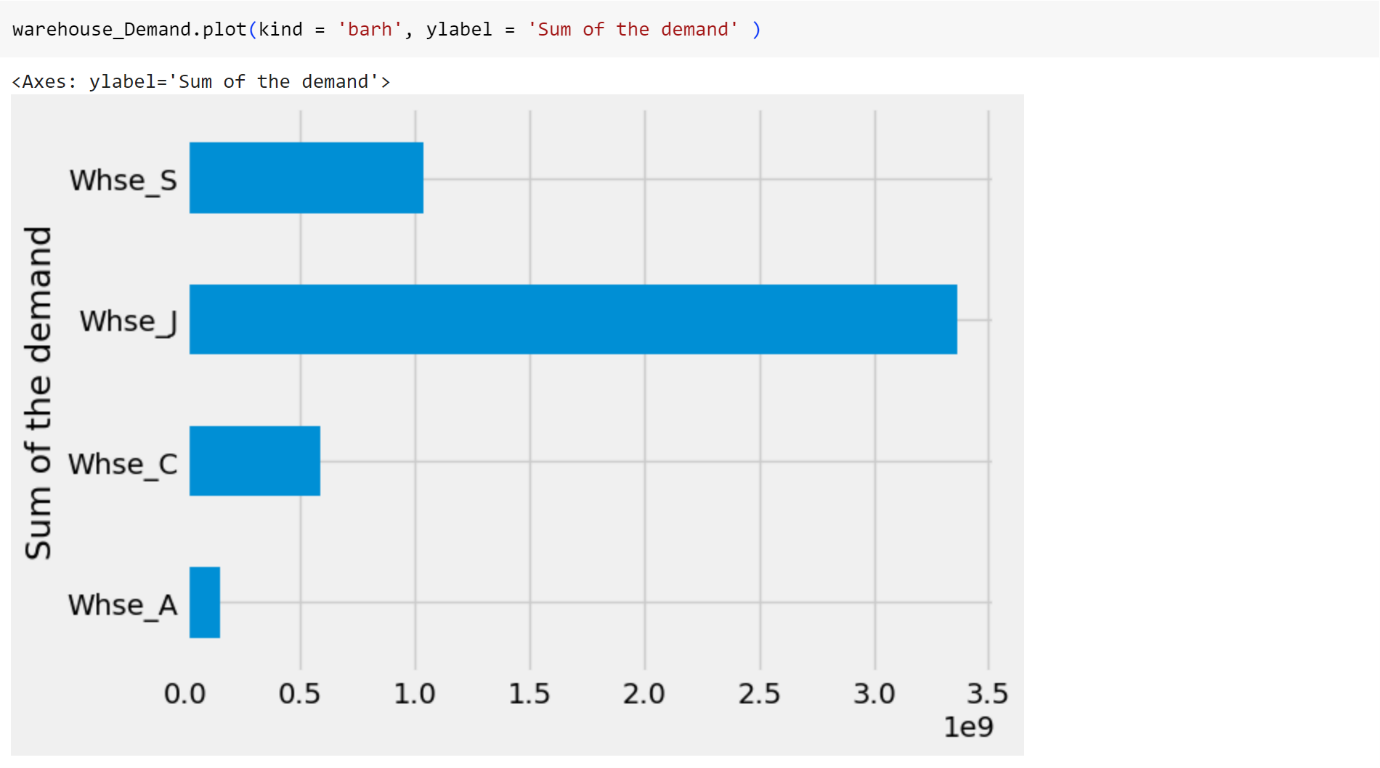
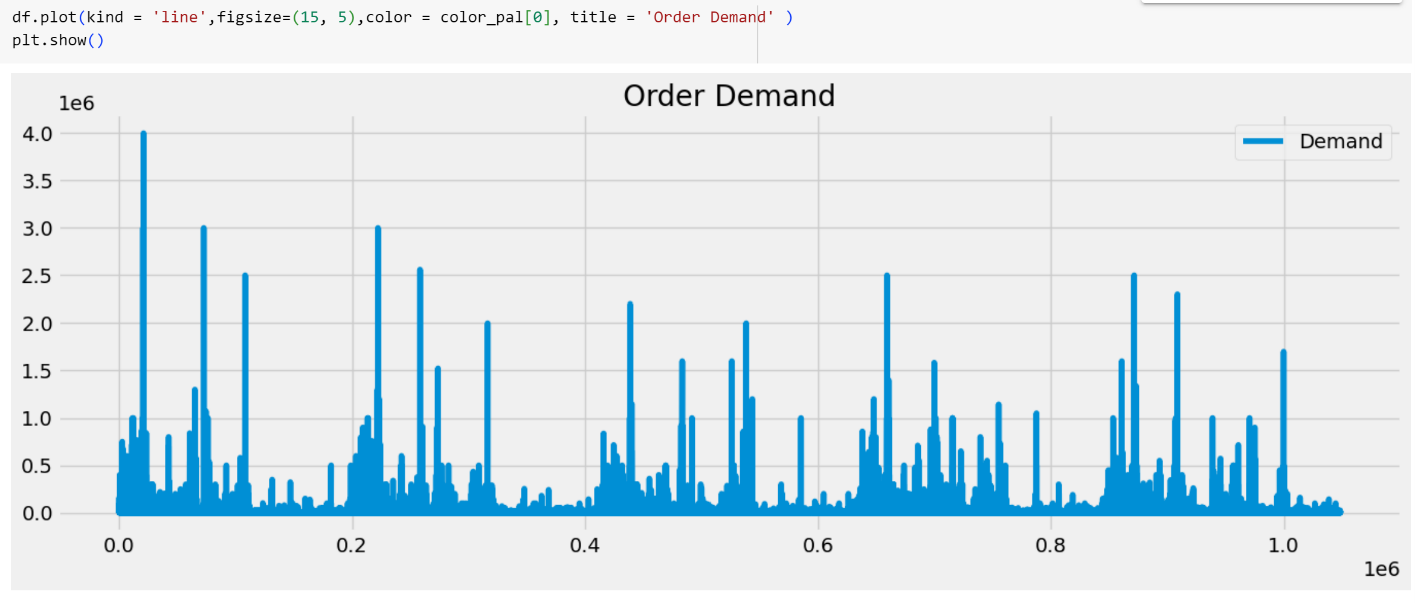
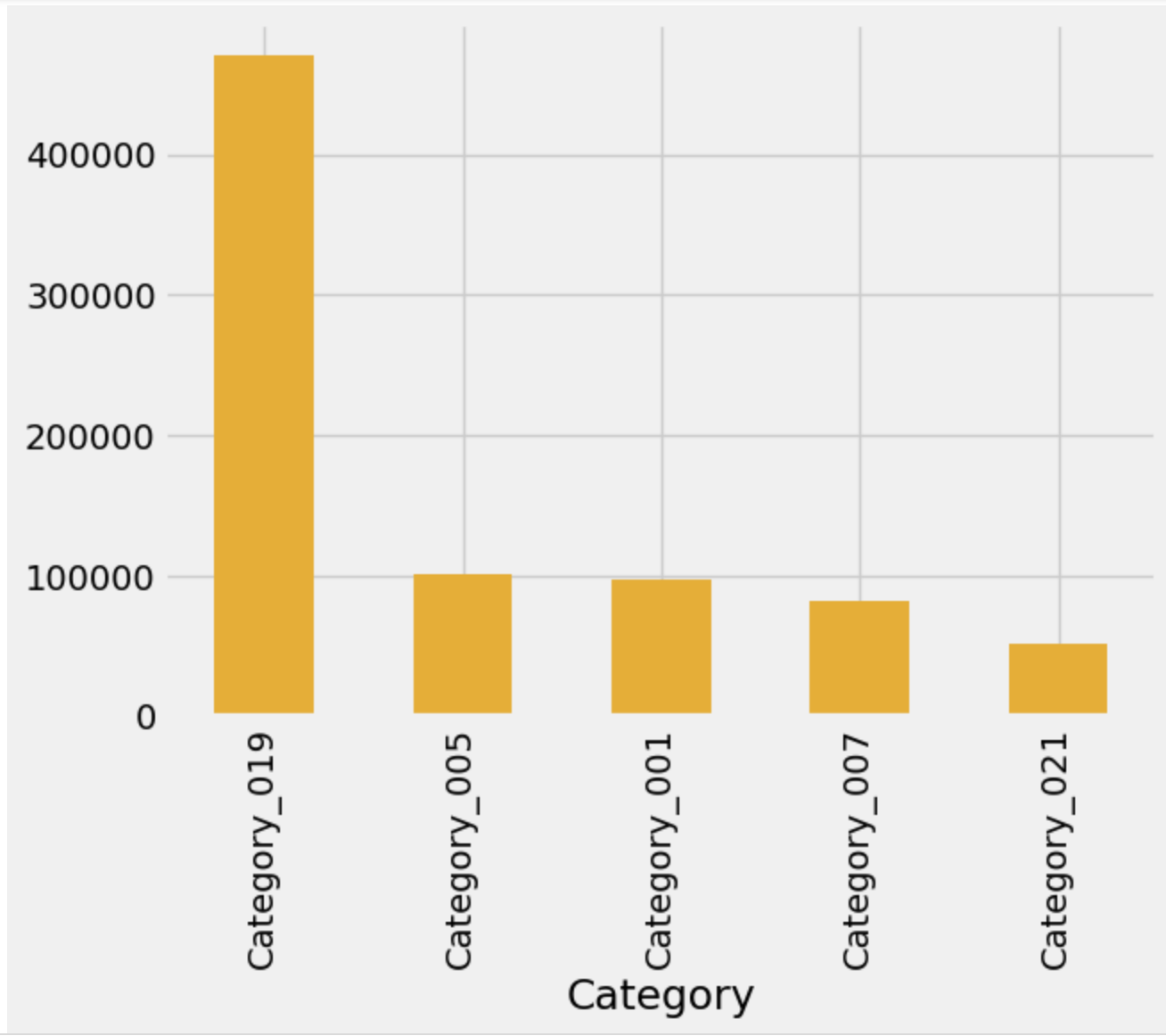
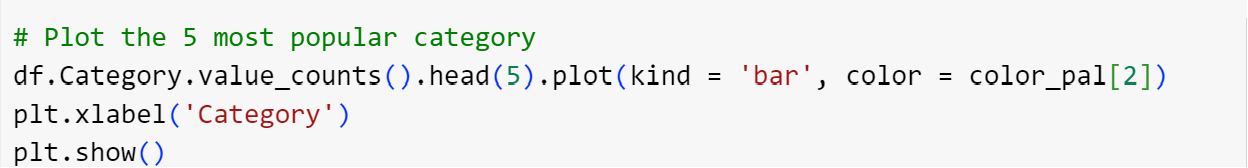
import plotly.express as px

import seaborn as sns

import matplotlib.pyplot as plt

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

****

****