import numpy as np

import pandas as pd

import seaborn as sns

import matplotlib.pyplot as plt

data=pd.read\_csv("covid\_vaccine\_statewise.csv")

print("The top five rows are: ")

data.head()

print("The last five rows are: ")

data.tail()

# Shape of the dataset in the format of (rows, columns)

print("The shape is: ")

data.shape

# Names of columns

print("The columns present in the dataset are: ")

data.columns

data.describe()

data.describe(include='object')

data.info()

data.isnull().sum()

avg\_firstdose = data["First Dose Administered"].astype("float").mean(axis = 0)

print("Average of First Dose:", avg\_firstdose)

# Replacing First Dose Administered

data["First Dose Administered"].fillna(value = avg\_firstdose, inplace=True)

data

# Average of Second Dose Administered

avg\_seconddose = data["Second Dose Administered"].astype("float").mean(axis = 0)

print("Average of Second Dose:", avg\_seconddose)

# Replacing Second Dose Administered

data["Second Dose Administered"].fillna(value = avg\_seconddose, inplace = True)

data

#Number of persons state wise vaccinated for first dose in India

first\_dose = data.groupby('State')[['First Dose Administered']].sum()

first\_dose

#Number of persons state wise vaccinated for second dose in India

first\_dose = data.groupby('State')[['Second Dose Administered']].sum()

first\_dose

#Number of males vaccinated

male = data["Male(Individuals Vaccinated)"].sum()

print("The total number of male individuals vaccinated are", int(male))

# Number of Females vaccinated

female = data["Female(Individuals Vaccinated)"].sum()

print("The total number of female individuals vaccinated are", int(female))