

```
In [1]: import pandas as pd
```

```
In [2]: df = pd.read_csv('C:\\Users\\Lenovo\\Downloads\\mini\\covid_vaccine_statewise.csv')
```

```
In [3]: first_dose_by_state = df.groupby('State')['First Dose Administered'].sum()
```

```
In [4]: print(first_dose_by_state)
```

State	
Andaman and Nicobar Islands	1.642585e+07
Andhra Pradesh	1.232861e+09
Arunachal Pradesh	4.900498e+07
Assam	5.856002e+08
Bihar	1.470503e+09
Chandigarh	4.470310e+07
Chhattisgarh	7.960029e+08
Dadra and Nagar Haveli and Daman and Diu	3.359506e+07
Delhi	6.243395e+08
Goa	7.599137e+07
Gujarat	2.131646e+09
Haryana	7.557984e+08
Himachal Pradesh	3.162940e+08
India	2.826214e+10
Jammu and Kashmir	4.101018e+08
Jharkhand	6.036737e+08
Karnataka	1.873330e+09
Kerala	1.193845e+09
Ladakh	1.780925e+07
Lakshadweep	4.363655e+06
Madhya Pradesh	1.796605e+09
Maharashtra	2.784364e+09
Manipur	6.740957e+07
Meghalaya	6.261597e+07
Mizoram	4.787308e+07
Nagaland	4.241077e+07
Odisha	1.032633e+09
Puducherry	4.134686e+07
Punjab	5.843466e+08
Rajasthan	2.201044e+09
Sikkim	3.698093e+07
Tamil Nadu	1.288533e+09
Telangana	8.803206e+08
Tripura	1.926897e+08
Uttar Pradesh	2.788411e+09
Uttarakhand	3.631914e+08
West Bengal	1.796450e+09

Name: First Dose Administered, dtype: float64

```
In [5]: second_dose_by_state = df.groupby('State')['Second Dose Administered'].sum()
```

```
In [6]: print(second_dose_by_state)
```

State	
Andaman and Nicobar Islands	4.118554e+06
Andhra Pradesh	3.588176e+08
Arunachal Pradesh	1.193232e+07
Assam	1.307888e+08
Bihar	2.707906e+08
Chandigarh	1.159374e+07
Chhattisgarh	1.721204e+08
Dadra and Nagar Haveli and Daman and Diu	4.594416e+06
Delhi	1.882189e+08
Goa	1.619817e+07
Gujarat	6.004184e+08
Haryana	1.586561e+08
Himachal Pradesh	7.383858e+07
India	6.759621e+09
Jammu and Kashmir	8.595165e+07
Jharkhand	1.221211e+08
Karnataka	4.271872e+08
Kerala	3.640488e+08
Ladakh	5.453762e+06
Lakshadweep	1.056446e+06
Madhya Pradesh	3.169330e+08
Maharashtra	7.128811e+08
Manipur	1.185815e+07
Meghalaya	1.216663e+07
Mizoram	9.998418e+06
Nagaland	9.204637e+06
Odisha	2.513028e+08
Puducherry	8.608859e+06
Punjab	1.211210e+08
Rajasthan	4.917030e+08
Sikkim	9.723640e+06
Tamil Nadu	2.906706e+08
Telangana	1.981529e+08
Tripura	6.527014e+07
Uttar Pradesh	5.544351e+08
Uttarakhand	1.000850e+08
West Bengal	5.861469e+08

Name: Second Dose Administered, dtype: float64

```
In [7]: males_vaccinated = df['Male(Individuals Vaccinated)'].sum()
```

```
In [8]: print(males_vaccinated)
```

7138698858.0

```
In [9]: females_vaccinated = df['Female(Individuals Vaccinated)'].sum()
```

```
In [10]: print(females_vaccinated)
```

6321628736.0

a. Describe the dataset:

The dataset contains information about the COVID-19 vaccination status in India. It includes data related to the number of people vaccinated for the first dose and second dose, the number of males and females vaccinated, the number of doses administered in each state and union territory of India, and the type of vaccine administered. The dataset is updated on a daily basis, and the data is collected from the official website of the Ministry of Health and Family Welfare of the Government of India.

b. Number of persons state-wise vaccinated for the first dose in India:**Python Code:-**

```
import pandas as pd
df = pd.read_csv('C:\\Users\\Lenovo\\Downloads\\mini\\covid_vaccine_statewise.csv')
first_dose = df.groupby("State")["First Dose Administered"].max().reset_index()
print(first_dose)
```

c. Number of persons state-wise vaccinated for the second dose in India:**Python code:-**

```
import pandas as pd
df = pd.read_csv('C:\\Users\\Lenovo\\Downloads\\mini\\covid_vaccine_statewise.csv')
second_dose = df.groupby("State")["Second Dose Administered"].max().reset_index()
print(second_dose)
```

d. Number of males vaccinated:**Python code:**

```
import pandas as pd
df = pd.read_csv('C:\\Users\\Lenovo\\Downloads\\mini\\covid_vaccine_statewise.csv')
males_vaccinated = df["Male(Individuals Vaccinated)"].max()
print("Number of males vaccinated: ", males_vaccinated)
```

e. Number of females vaccinated:**Python code:**

```
import pandas as pd
df = pd.read_csv('C:\\Users\\Lenovo\\Downloads\\mini\\covid_vaccine_statewise.csv')
females_vaccinated = df["Female(Individuals Vaccinated)"].max()
print("Number of females vaccinated: ", females_vaccinated)
```