

Covid_19 Vaccination Status



Computer Engineering TE(Computer)

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Certificate



This is to certify that, Mr. Ashish More (48), Mr. Vishal Kumdale (40), Mr. Om Chouhan (17), Mr. Yash Sharma (65), have successfully completed the Mini project entitled “Vaccination Status” under my guidance of Prof. Rupali Wagh for the Third Year of Engineering in Computer Engineering under the Savitribai Phule Pune University during the academic year 2022- 2023

Prof. Rupali Wagh
Subject Teacher

Prof. Shrikant Dhamdhare
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Date :

Place : Pune

Acknowledgement

With deep sense of gratitude we would like to thank all the people who have lit our path with their kind guidance. We are very grateful to these intellectuals who did their best to help during our project work.

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Abstract

The COVID-19 vaccines have been developed to help fight the COVID-19 pandemic by teaching the body's immune system how to recognize and fight the virus. The vaccines have undergone rigorous testing in clinical trials to ensure their safety and efficacy, and they have been shown to be highly effective in preventing COVID-19 infections, severe illness, hospitalization, and death. There are several types of COVID-19 vaccines, including mRNA, viral vector, and protein subunit vaccines. Vaccines are available to most age groups in many countries, and priority has been given to those at higher risk of severe COVID-19. While the vaccines are highly effective, it is important to continue following public health measures to prevent the spread of COVID-19.



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Introduction

Vaccination status refers to the current state of an individual's vaccination history. Vaccination is a process of administering vaccines to stimulate an individual's immune system to develop immunity against a particular disease. Vaccination is one of the most effective ways to prevent infectious diseases and has been instrumental in reducing morbidity and mortality rates worldwide. Vaccines are biological preparations that contain weakened or dead microorganisms or their toxins that can trigger an immune response in the body without causing the disease itself.

The topic of vaccination status is crucial in today's world, particularly in the context of the ongoing COVID-19 pandemic. Vaccination is one of the most effective ways to prevent the spread of infectious diseases and keep individuals healthy. With the advent of COVID-19 vaccines, it has become essential to understand the significance of vaccination status and its impact on public health. In this college project, we will explore the importance of vaccination status, the various types of vaccines available, the benefits of getting vaccinated, and the potential risks and concerns associated with vaccines.

The project will involve conducting research on vaccination status, analyzing data related to vaccination rates, and exploring the factors that influence vaccination decisions. Additionally, we will examine the ethical considerations related to mandatory vaccination policies and discuss the role of healthcare providers in promoting vaccine uptake.

Overall, this project aims to provide a comprehensive understanding of vaccination status and its impact on public health. By examining the benefits, risks, and challenges associated with vaccines, we hope to promote informed decision-making and encourage individuals to take an active role in protecting their health and the health of their communities.

Software Requirements Specification

Hardware Requirements

- Higher Processor of 2.4 GHZ speed
- 8GB RAM maximum
- 80GB maximum disk space

Software Requirements

- Operating System (Windows 10 or later)
- Visual Studio

Code

```
[ ] # Importing the required libraries
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

[ ] # Reading the csv file
data = pd.read_csv("covid_vaccine_statewise.csv")

[ ] # Top five rows
print("The top five rows are: ")
data.head()

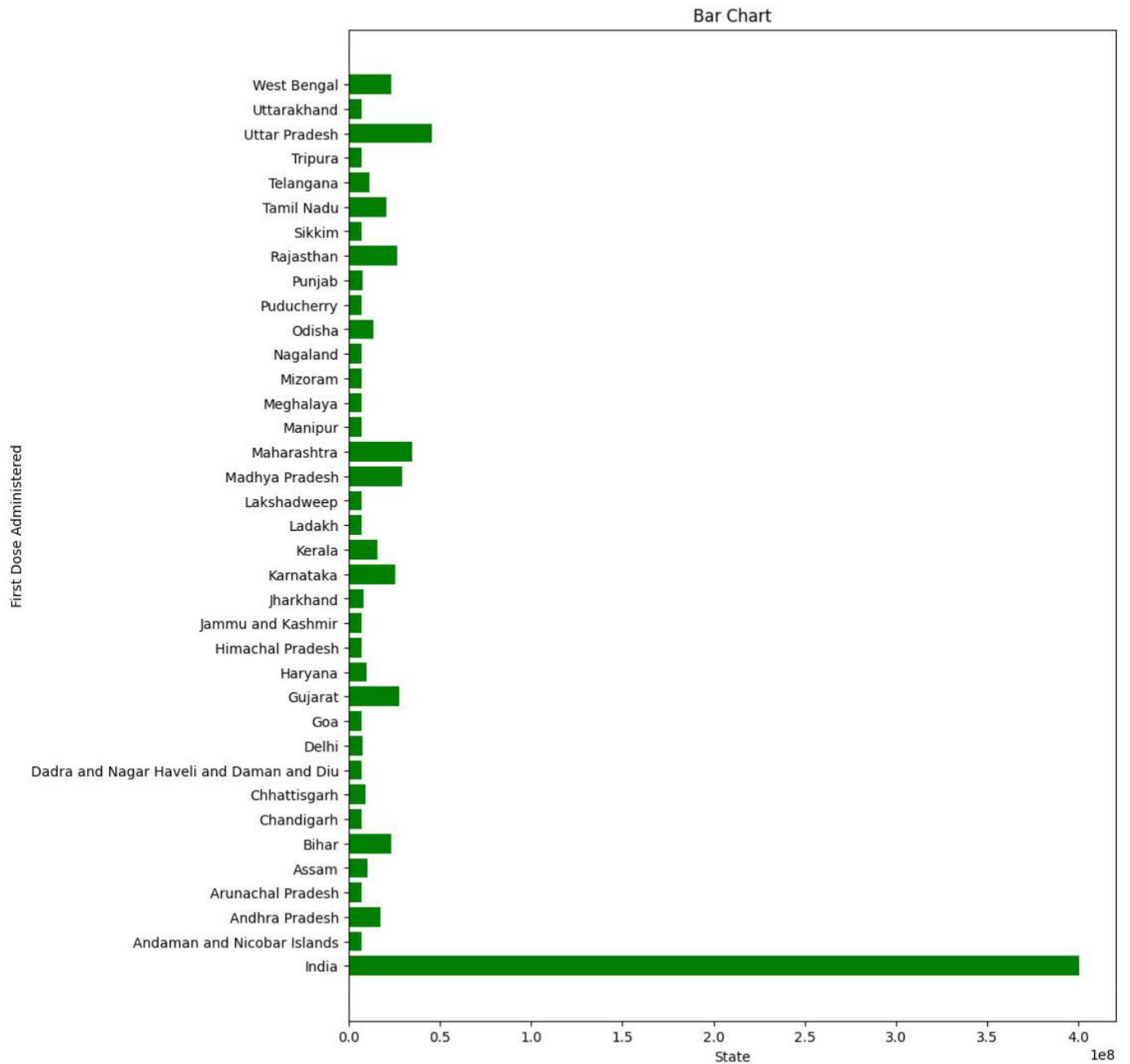
[ ] # Last five rows
print("The last five rows are: ")
data.tail()

[ ] # 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
```

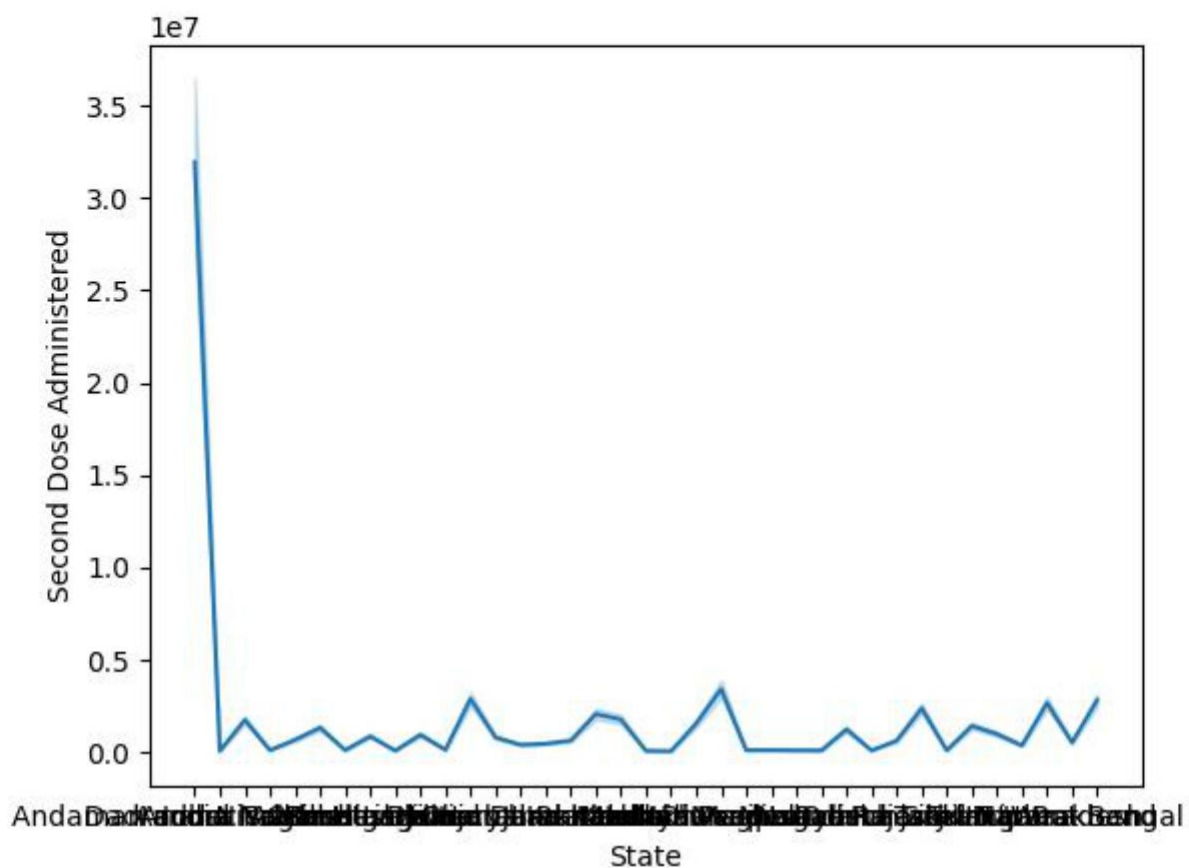

Output

Number of persons state wise vaccinated for first dose in India



Number of persons state wise vaccinated for second dose in India

```
sns.lineplot(x='State', y='Second Dose Administered', data=data)
#plt.rcParams['figure.figsize'] = [10, 10]
plt.show()
```

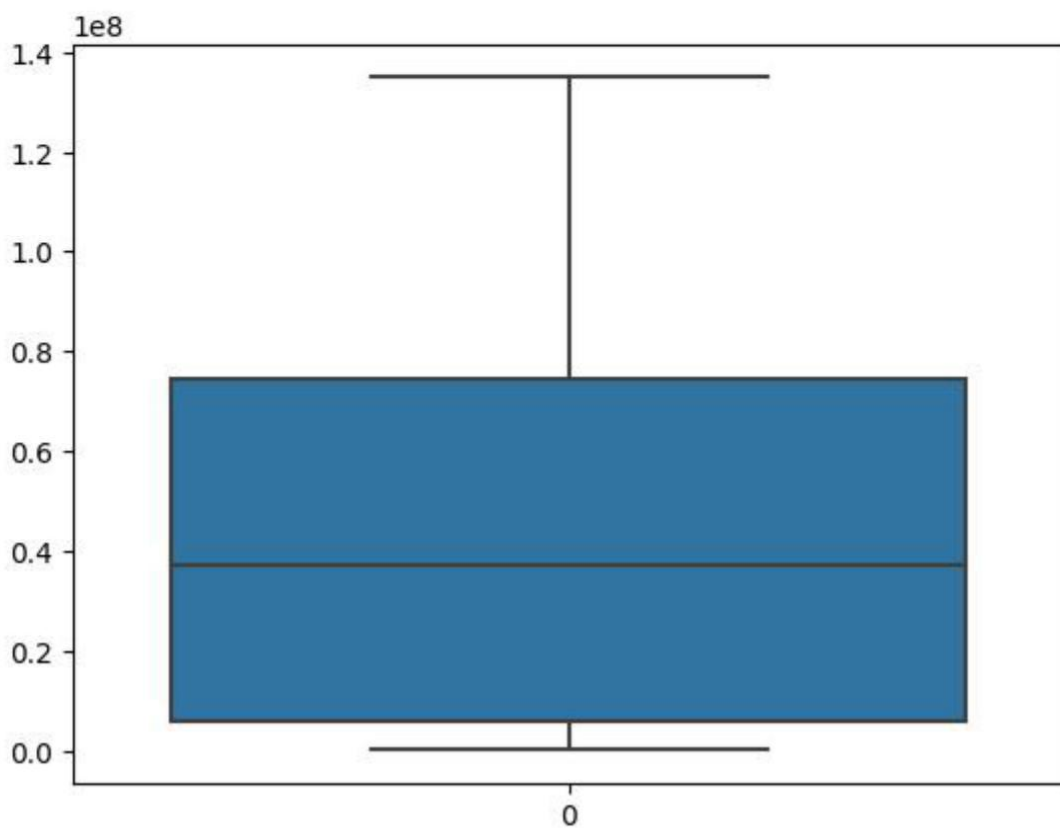


Number of Males vaccinated

```
male = data["Male(Individuals Vaccinated)"].sum()  
print("The total number of male individuals vaccinated are", int(male))
```

The total number of male individuals vaccinated are 7138698858

```
sns.boxplot(data['Male(Individuals Vaccinated)'])
```

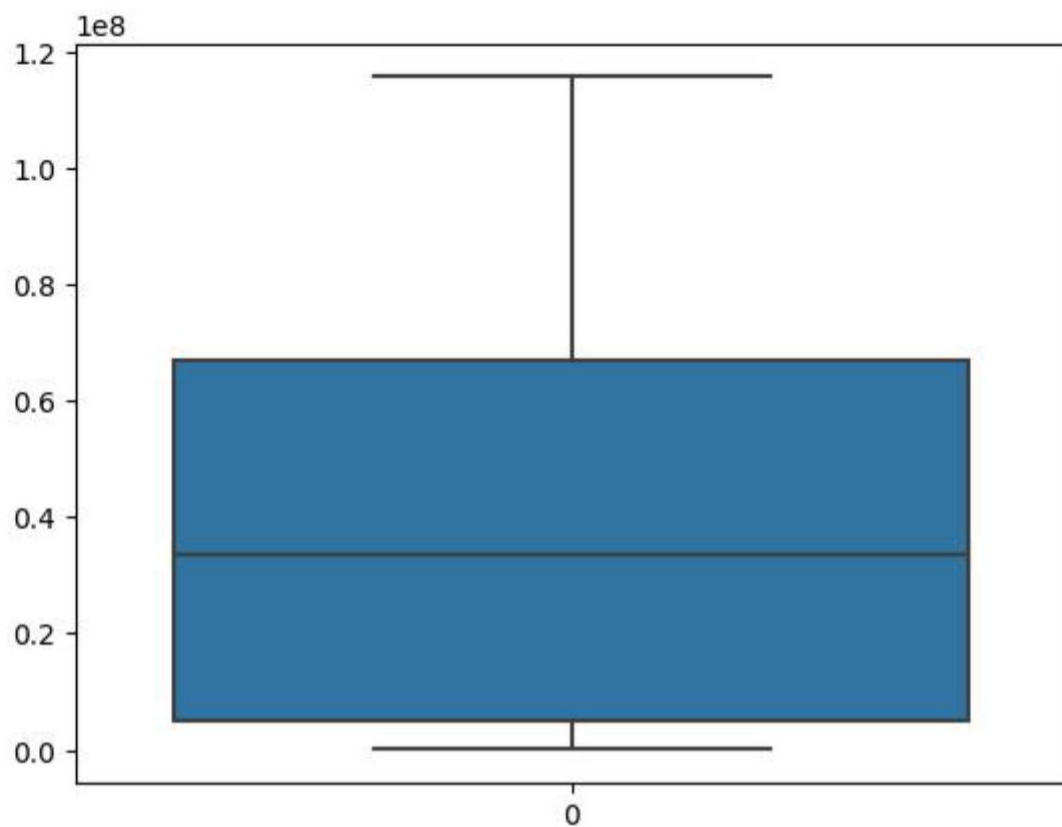


Number of females vaccinated

```
female = data["Female(Individuals Vaccinated)"].sum()  
print("The total number of female individuals vaccinated are", int(female))
```

The total number of female individuals vaccinated are 6321628736

```
sns.boxplot(data['Female(Individuals Vaccinated)'])
```



Conclusion

COVID-19 vaccination is a crucial strategy to combat the ongoing pandemic and its devastating impacts on health, economy, and society. However, the vaccination program faces many challenges, such as vaccine supply and distribution, vaccine hesitancy and misinformation, vaccine equity and access, and vaccine effectiveness and safety against emerging variants. This report has provided an overview of the current situation of COVID-19 vaccination in India and other countries, based on data from various sources. The report has also discussed the benefits and limitations of vaccination, as well as the recommendations for improving the vaccination program and achieving the desired outcomes. The report concludes that COVID-19 vaccination is a necessary but not sufficient condition for ending the pandemic. It requires a comprehensive and coordinated approach that involves multiple stakeholders, sectors, and interventions. It also requires continuous monitoring, evaluation, and adaptation to the changing dynamics of the pandemic. COVID-19 vaccination is not only a matter of public health, but also a matter of social justice and global solidarity.

Future Scope

Responsive Design: With the increasing use of mobile devices to access the internet, one potential future scope for our web application project with a GUI interface is to develop a responsive design that adapts to different screen sizes and resolutions. This can help to improve user experience and engagement, as well as Increase accessibility for users on different devices.

Accessibility: Another potential future scope for our web application project is to improve accessibility for users with disabilities. This could involve incorporating assistive technologies such as screen readers or voice recognition, or making design changes to improve visibility and readability for users with visual impairments.

Graphical User Interface :A graphical user interface (GUI) is the medium through which the user interacts with a computer or any electronic device. You're very likely reading this article through a GUI. Users can interact with a GUI using a mouse, keyboard, touch screen or even through voice commands depending on their device.

References

<https://www.kaggle.com>

<https://www.google.com>