

BRICS NATIONS OLYMPIC MEDAL ANALYSIS

Presented By
Manikantha Dandi
234161017

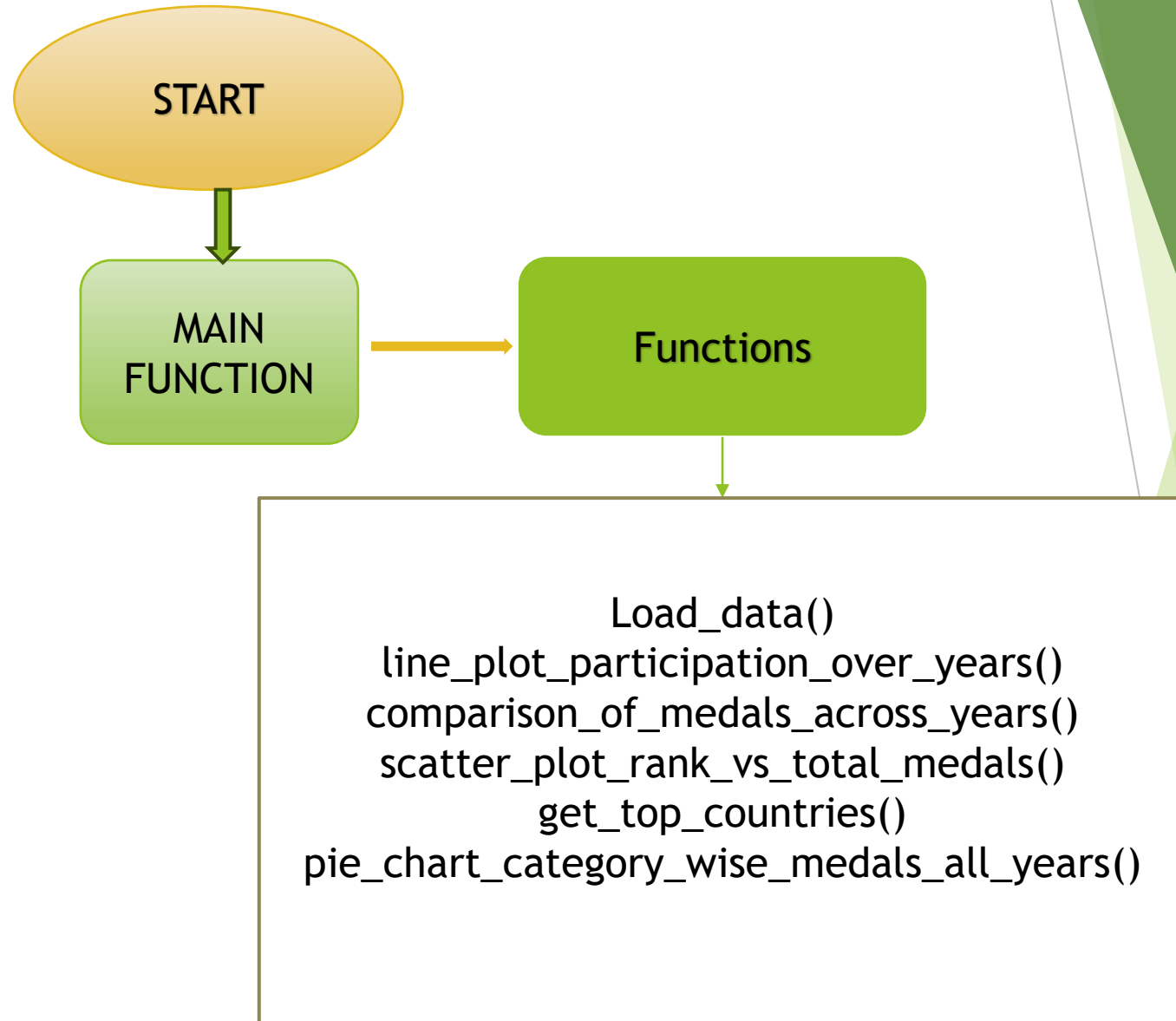
Motivation

- ▶ BRICS is an intergovernmental organization comprising Brazil, Russia, India, China, and South Africa.
- ▶ Understanding Performance Trends : can help identify patterns, improvements, or challenges over the years
- ▶ Promoting Sports Culture within the BRICS nations : engage communities in sports

Overview

- ▶ Python based analysis using pandas, matplotlib
- ▶ Columns in Data set : Year, Host city, Total Athletics, Gold, Silver, Bronze, Total Medals, Rank, Country
- ▶ Data range : 1984 to 2020
- ▶ **Note that During 1984 and 1988 Russia is part of Soviet union nation.**
1992 part of unified team
In 2020 represented as Russian Olympic Committee

Block Diagram



Pseudo code

```
# call main function
```

```
if __name__ == "__main__":
```

```
    main()
```

```
#functions to be called in main function
```

```
def main():
```

```
    olympic_data = load_data()
```

```
    display_data_head(olympic_data)
```

```
    # Plotting using Matplotlib
```

```
    # Call your analysis functions
```

```
    line_plot_participation_over_years(olympic_data)
```

```
    bar_plot_total_medals_by_country(olympic_data)
```

```
    comparison_of_medals_across_years(olympic_data)
```

```
    bar_plot_medals_distribution_in_year(olympic_data, 2020)
```

```
    scatter_plot_rank_vs_total_medals(olympic_data)
```

```
    stacked_bar_plot_total_medals_distribution(olympic_data)
```

pseudocode

#load data

def load_data():

return pd.read_csv('F:\\python_pro\\olympic_statistics_modified.csv')

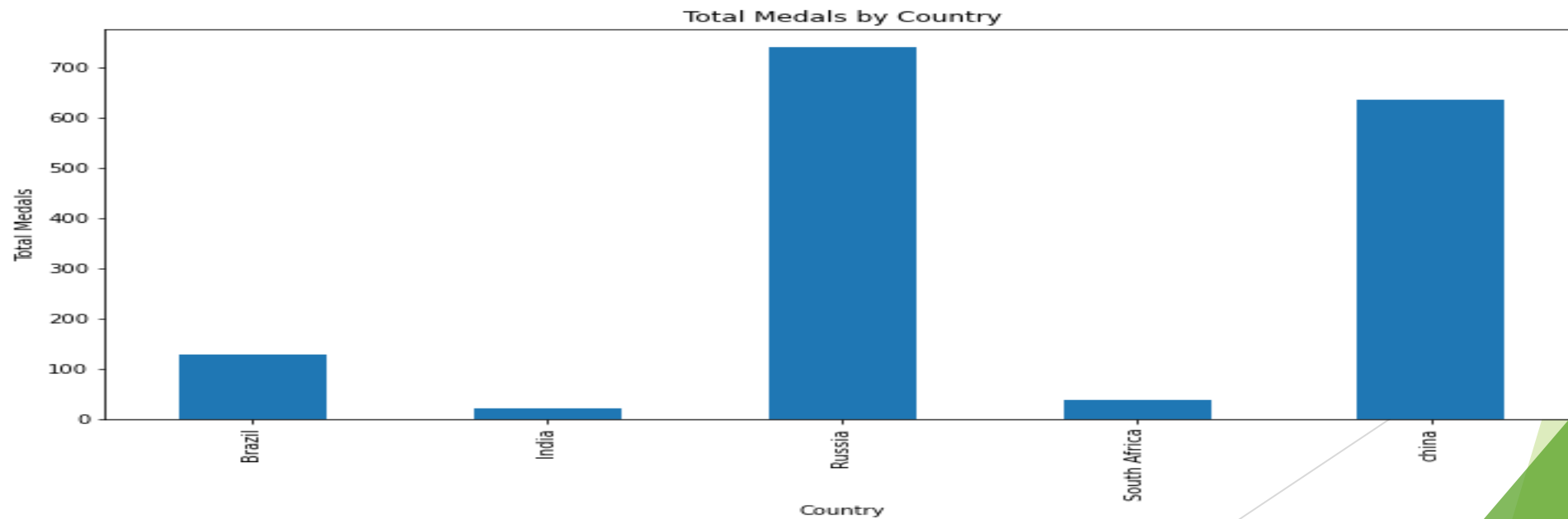
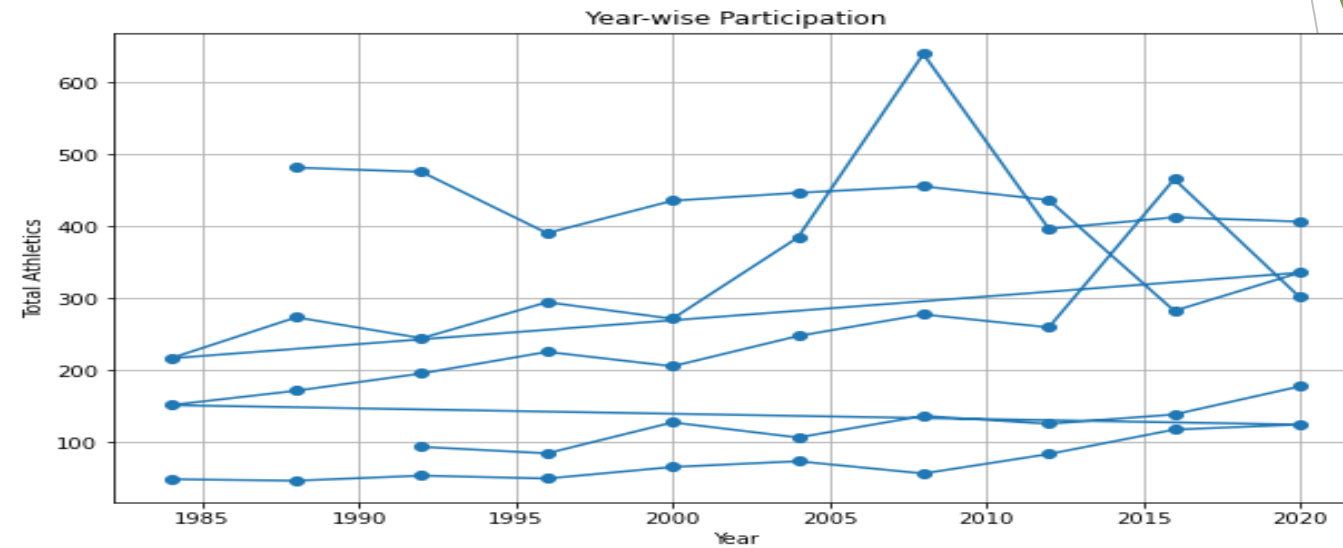
#some other function

plot_medals_over_years(olympic_data)

pie_chart_category_wise_medals_all_years(olympic_data, 'India')

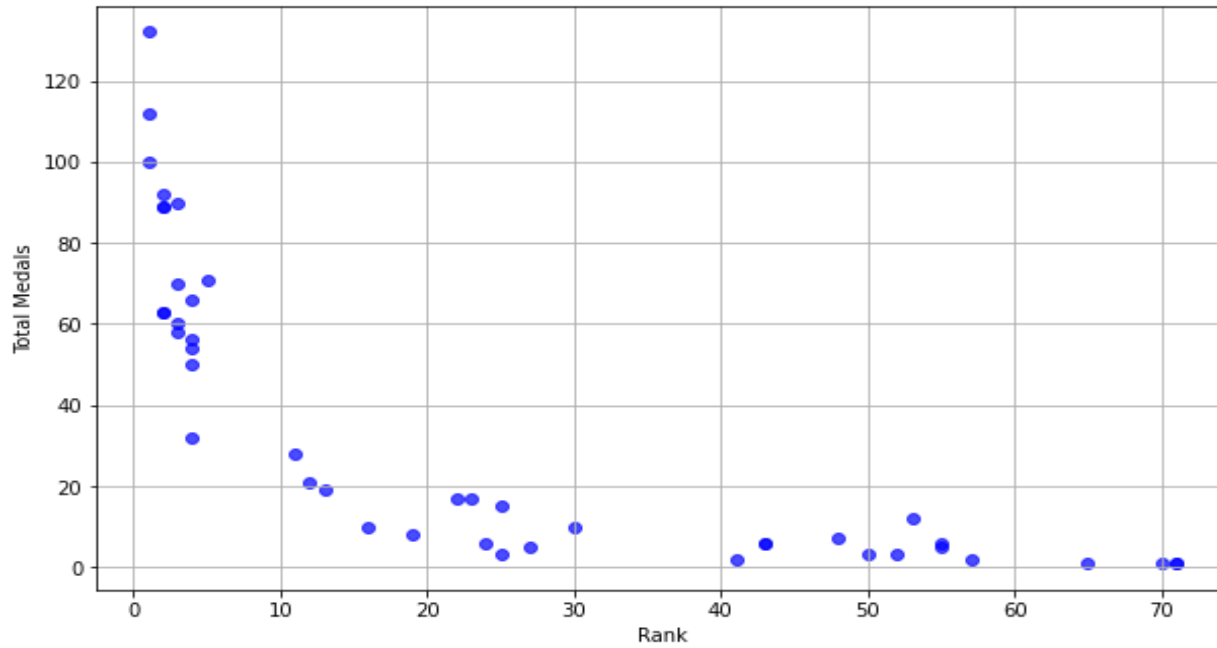
get_top_countries(olympic_data, 2008, 4)

Results

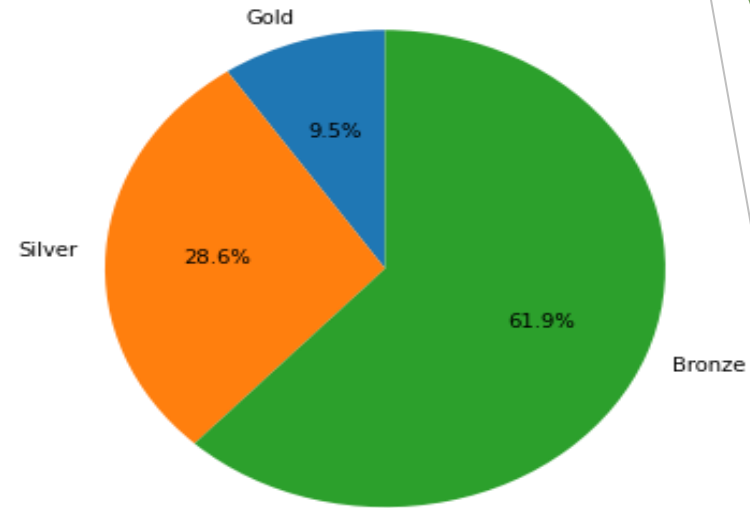


Results

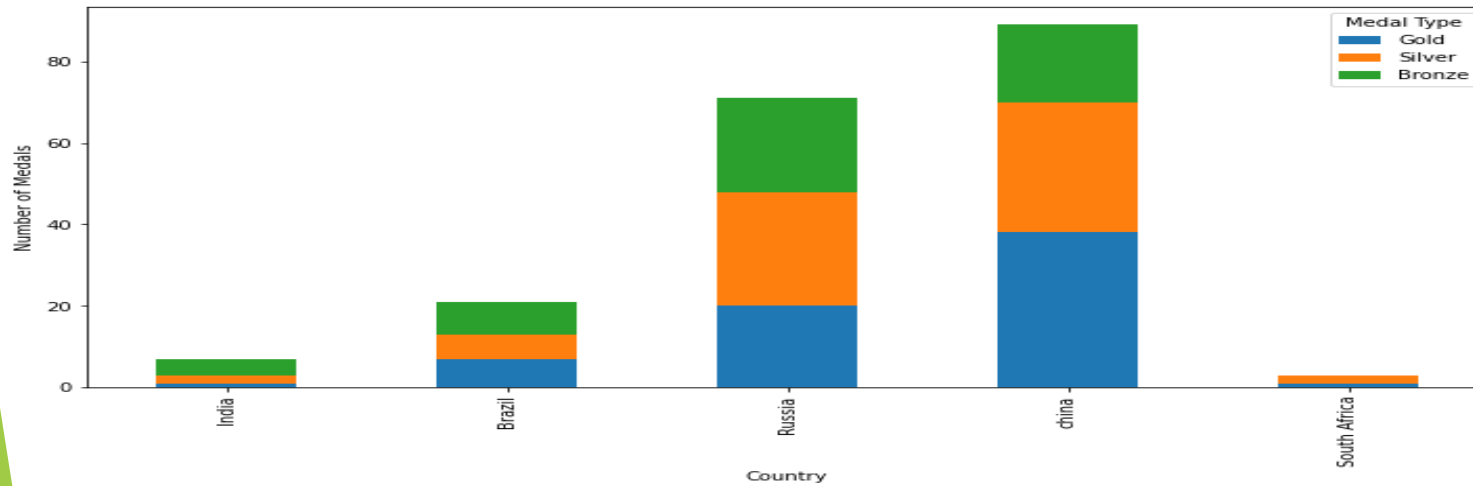
Scatter Plot: Rank vs Total Medals



India Medals Distribution Across All Years



Medals Distribution in 2020



Executing the Python code

Observations after executing the code:

- Both Russia and China appears to be a consistently strong performers across multiple years
- India's medal count is comparatively lower

Thank you