MINI PROJECT REPORT

ON

GDP OF INDIA

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INDEX

INTRODUCTION:

The **Gross Domestic Product (GDP)** measures the monetary value of all finished goods and services produced within a country's borders in a specific time period. It's a key indicator of economic health.

India is the **fifth-largest economy** in the world by nominal GDP and the **third-largest** by purchasing power parity (PPP). India's GDP has seen a transformation post-1991 due to liberalization, privatization, and globalization.

- Mention how GDP reflects living standards, economic performance, and growth potential.

- Introduce India's recent GDP growth trajectory and its role in global markets.

The GDP trend in India has grown steadily since 21st century, with an average annual growth rate of 6-7%.

The Asian Development Bank(ADB) lowered India's GDP growth forecast for 2024-2025 t0 6.5%.

The service sector is the fastest growing sector of India's economy, accounting for over 60% GDP. Agriculture , forestry and fishing account for 12% of GDP.

PROBLEM STATEMENT:

India, being one of the largest and fastest-growing economies in the world, has a complex economic structure that includes agriculture, industry, and services as its three main pillars. Over the years, India's GDP has witnessed significant fluctuations due to various internal and external factors. These include:

1. **Internal Factors**:
    - Economic reforms (e.g., liberalization in 1991, GST implementation).
    - Policies promoting sectors like technology, manufacturing, and infrastructure.
    - Social challenges like poverty, unemployment, and income inequality.
2. **External Factors**:
    - Global financial crises (e.g., 2008 crisis).
    - The COVID-19 pandemic's economic shock.
    - Geopolitical issues like the Russia-Ukraine war and oil price fluctuations.

Given these complexities, understanding the dynamics of India's GDP is crucial for policymakers, businesses, and researchers.

Focus on why analysing India's GDP is important:

- India is one of the fastest-growing economies, but disparities exist between rural and urban regions.
- The challenge of balancing **agriculture, industry, and services sectors**.
- The impact of **global factors** like the Russia-Ukraine war, oil prices, and COVID-19 on GDP growth.

OBJECTIVES:

The objective of this mini project is to study India's GDP growth from past few years to the present, and to identify the periods of high growth and declines in various situation such as finance and diseases.

The GDP is break down into three types:

- Agriculture
- Industry
- Services

How they have contributed to our country and what changes have made over time.

Also, the global crises, such as the pandemic and Russia-Ukraine war and also those which have impacted India's GDP.

The another key aspect of this project is to examine the effects caused by the government policies and reforms. The projects intends to study regional disparities GDP contributions and also to analyse other factors.

The projects also aim to predict future GDP trends such as linear progression, providing insights to the trajectory of India's economy over the next decade.

PYTHON LIBRARIES USED IN THE PROJECT:

1. Requests

- requests .get(url) : request the URL to retrieve data
- response . json() : uses JSON format for easier data manipulation.

2. matplotlib.pyplot

- plt.plot() : plot the GDP data as a line chart
- plt.title() : add title
- plt.xlabel() : add labels to the chart
- plt.ylabel() : add labels to the chart
- plt.grid() : adds a grid to the plot for improved readability
- plt.xticks(rotation=45) : rotates the x-axis labels
- plt.tight_layout() : adjusting layout to fit all elements

MODULES OF THE PROJECT:

The modules used in these project are:

1.dowloaded data from sources like world bank.

And it contains GDP values in USD.

2.Data cleaning, it helps in converting GDP values into currency like billions or millions.

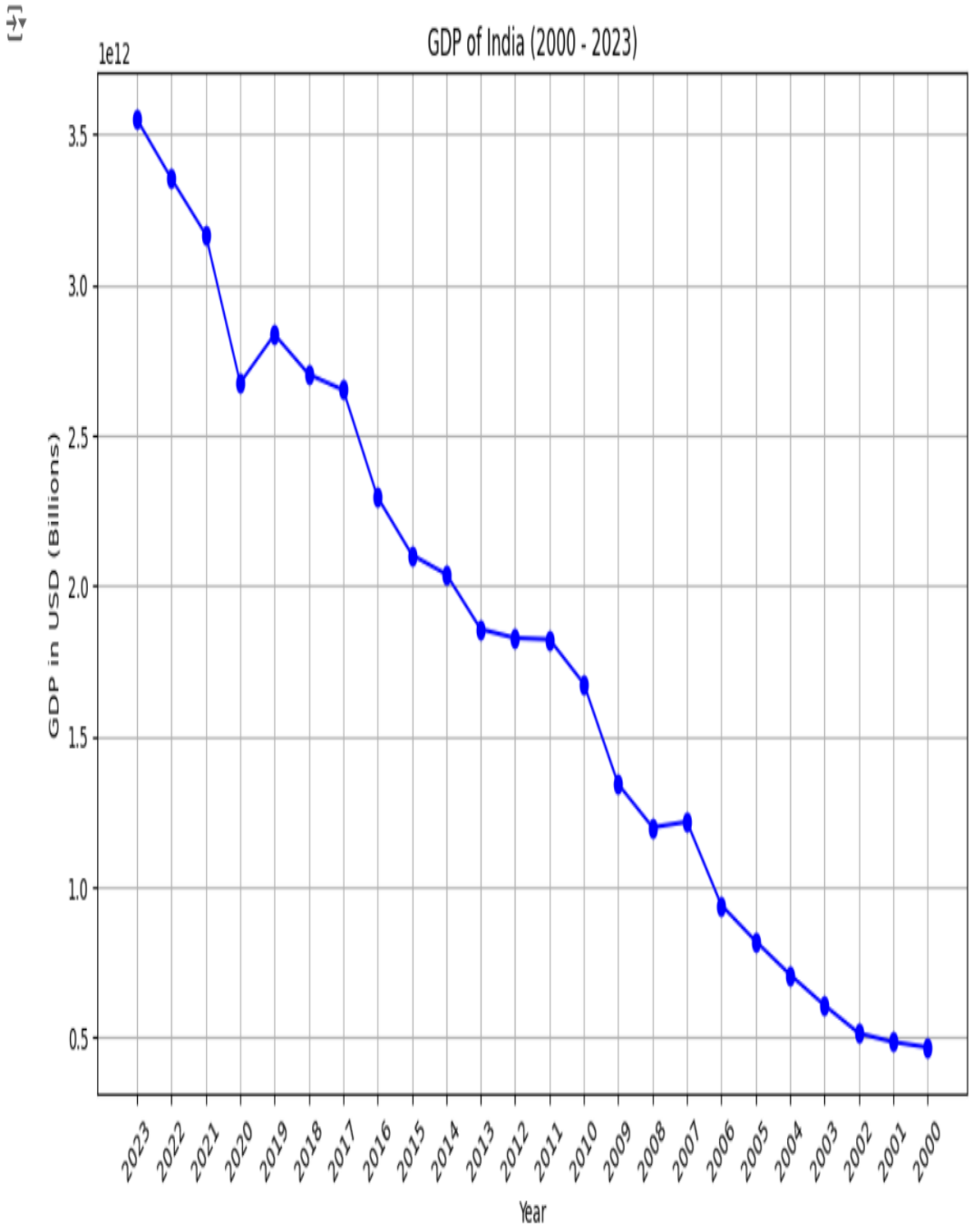
3.Data Analysis using matplotlib

4.used line graph for GDP trends

CODE:

```
import requests
import matplotlib.pyplot as plt

# Define the URL to fetch the GDP data (World Bank API example)
url = "https://api.worldbank.org/v2/country/IN/indicator/NY.GDP.MKTP.CD?format=json&date=2000:2023"

# Make a GET request to the API
response = requests.get(url)

# Check if the request was successful
if response.status_code == 200:
    data = response.json()

    # Extract the GDP data from the response
    gdp_data = data[1]

    # Prepare lists for years and GDP values
    years = [entry['date'] for entry in gdp_data]
    gdp_values = [entry['value'] for entry in gdp_data]

    # Plotting the data
    plt.figure(figsize=(10, 6))
    plt.plot(years, gdp_values, marker='o', color='b', label='GDP in USD')
    plt.title("GDP of India (2000 - 2023)")
    plt.xlabel("Year")
    plt.ylabel("GDP in USD (Billions)")
    plt.grid(True)
    plt.xticks(rotation=45)
    plt.tight_layout()
    plt.show()

else:
    print("Failed to retrieve data. Status code:", response.status_code)
```

OUTPUT:


GDP of India (2000 - 2023)
1e12
GDP in USD (Billions)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
2023
2022
2021
2020
2019
2018
2017
2016
2015
2014
2013
2012
2011
2010
2009
2008
2007
2006
2005
2004
2003
2002
2001
2000
Year

APPLICATION OF THE PROJECT:

This project analyse the GDP of India over the period 2000-2023. It is used to understand the country's Economic growth and make predictions for the future.

- This projects also helps to understand how India's GDP has changed from 2000-2023

- The project can help to explain how major changes during this period , such as the 1991 economic reforms' sustained impact, GST implementation (2017) and other events that have impacted India's growth.

- Business can use the analysis to identify high growth sectors , for example in IT field or in manufacturing for high investments.

By analysing India's GDP from 2000-2023, this project provides valuable information for policymaking and academic purposes. It captures the interplay of domestic policies , global events and how GDP have changed in the past few years.

LIMITATION OF THE PROJECT:

While doing this project, there was some limitation which made the project took too much time.

Like, lack of accurate data , referred many websites to get appropriate data and the one which I got is having gaps, missing values or inaccuracies , especially for older years.

The project didn't captured all the information such as informal sectors , social and environmental impacts.

There was some trouble in visualization like presenting large datasets in simple , understandable formats is difficult, which lead to oversimplification.

Covering 23 years of data thoroughly may require more time and resource than what is available for the project.

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- https://www.statista.com/statistics/263771/gross-domestic-product-gdp-in-india/