**Data Visualization and Exploration: A User-Friendly Tool Using Streamlit and Plotly**

**What is PhonePe pulse?**

PhonePe launched Pulse in 2021, intending to demystify data on the Indian digital payment’s ecosystem. Pulse is India's first and only interactive geospatial platform offering deep insights, in-depth conversations, and interesting facts on how the payments landscape in the country is evolving.

**Libraries Used:**

1. import streamlit as st
2. from streamlit\_option\_menu import option\_menu
3. import pandas as pd import mysql.connector
4. import plotly. express as px
5. import requests
6. import json
7. from PIL import Image

**Workflow:**

Step 1:Importing the Libraries

We are importing the libraries. As mentioned above, the list of libraries/modules is needed for the project. First, we have to import all those libraries.

Step 2:Data extraction

Clone the Github using scripting to fetch the data from the Phonepe pulse Github repository and store it in a suitable format such as JSON. Use the below syntax to clone the phonepe github repository into your local drive.

Step 3:Data transformation

In this step, the JSON files that are available in the folders are converted into the readable and understandable DataFrame format by using the for loop and iterating file by file and then finally the DataFrame is created. I've used os, JSON, and pandas packages to perform this step. And finally converted the data frame into a CSV file and storing in the local drive.

Step 4:Database insertion

To insert the data into SQL first I created a new database and tables using the "MySQL-connector-python" library in Python to connect to a MySQL database and insert the transformed data using SQL commands.

Step 5:Dashboard creation

To create a colorful and insightful dashboard I've used Plotly libraries in Python to create an interactive and visually appealing dashboard. Plotly's built-in Pie, Bar, and Geo map functions are used to display the data on charts and maps and Streamlit is used to create a user-friendly interface with multiple dropdown options for users to select different facts and figures to display.

Step 6:Data retrieval

Finally if needed Use the "mysql-connector-python" library to connect to the MySQL database and fetch the data into a Pandas dataframe.