**WEBSITE TRAFFIC ANALYSIS**

**PROJECT DEFINITION**:

The project involves analyzing website traffic data to gain insights into user behavior, popular pages, and traffic sources. The goal is to help website owners enhance the user experience by understanding how visitors interact with the site. This project encompasses defining the analysis objectives, collecting website traffic data, using IBM Cognos for data visualization, and integrating Python code for advanced analysis.

**DESIGN THINKING:**

**Analysis Objectives:**

* Identify specific KPIs (Key Performance Indicators) such as bounce rate, conversion rate, and session duration to measure user engagement effectively.
* Define target user segments to tailor insights for different user groups, if applicable.
* Establish a timeline for achieving the project's objectives and goals.

**Data Collection:**

* Ensure data privacy and compliance with data protection regulations (e.g., GDPR) when collecting and storing user data.
* Consider using Google Analytics, Matomo, or other web analytics tools to capture relevant traffic data.
* Explore options for real-time data collection to provide up-to-the-minute insights if needed.

**Visualization:**

* Determine the frequency of reporting (daily, weekly, monthly) and the audience (e.g., marketing team, executives) for each type of visualization.
* Incorporate user feedback in the design of dashboards and reports to ensure they meet the end-users' needs.
* Consider using data storytelling techniques to make the insights more engaging and actionable.

**Python Integration:**

* Identify the specific machine learning models or algorithms that can provide valuable predictions or recommendations based on the website traffic data.
* Ensure that there is a clear plan for data preprocessing, model training, and integration with the existing data visualization tools.
* Evaluate the scalability and performance of Python-based solutions, especially if dealing with large datasets.