COLLEGE CODE: 4212
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WEBSITE TRAFFIC ANALYSIS

PHASE2- DATA ANAYTICS WITH COGNOS: GROUP2

INTRODUCTION:

Website traffic analysis is a crucial aspect of understanding how users interact with the website. It involves the collection and interpretation of data related to the visitors, their behavior, and the performance of your website. In this process, various metrics, tools, and techniques are used to gain insights into user demographics, page views, bounce rates, conversion rates, and more.

In this phase we are going to explain about design and ideology that are going to present to solve this problem.

DATASET LINK:

https://www.kaggle.com/datasets/bobnau/daily-website-visitors

To this problem this dataset is given to us so by using this dataset we are going to solve our problem.

In the phase1 we have defined certain steps to solve the problem step by step now we are going to explain which methodology we are going to use to solve this problem in each step.

Clearly define the problem:

Website traffic analysis is the process of examining user interactions and behaviors on a website to gain insights into its performance.

Data collection:

The dataset is already given for us:

Dataset Link: **https://www.kaggle.com/datasets/bobnau/daily-website-visitors**

Preparing of the data:

Preparing data for website traffic analysis involves several steps. First, collect raw data using web analytics tools. Then, clean and format the data, removing duplicates or errors. Next, organize it into meaningful categories, like page views or user demographics.

Exploratory data analysis:

This was the most important step in this project so we have to represent our data in the understandable visualization tools like **pie chart, bar graph, histogram** to represent the relation between the two attributes in the given column.

Feature extraction:

In this step we are going to explain about the features or attributes that are going to select in the dataset and we have to represent the relationship between the data visualization.

Model validation and training:

Model validation in website traffic analysis involves comparing the predictions of a traffic analysis model with actual observed data to ensure accuracy.

Model training in website traffic analysis entails using historical data to teach a machine learning model to make predictions and identify patterns in website traffic.

Model evaluation:

Model evaluation in website traffic analysis assesses the performance of a predictive model. It involves comparing model predictions with actual traffic data using metrics like accuracy, precision, recall, or F1-score.

Result representation:

In website traffic analysis, result representation involves displaying analyzed data in visual formats like charts, graphs, and tables.

Reporting and Visualization:

This visual representation helps stakeholders quickly grasp key insights, such as traffic trends, visitor demographics, and conversion rates, making it easier to make informed decisions and optimize website performance.