WEBSITE TRAFFIC ANALYSIS

Project Definition:

Objective:

The main objectives of this project is to measure and track website performance ,understand user behaviour and preferences and to identify sources of traffic and improve user experience and site usability.

Scope:

This project encompasses some key components are abided by:

- **Defining Analysis Objectives:**

  This is the process of clearly stating and specifying what you aim to achieve through your analysis.It ensures objectives are Specific, Measurable, Achievable, Relevant, and Time-bound (SMART). This framework helps create clear and actionable goals.

- **Collecting Website Traffic Data:**

  It involves gathering information about how users interact with website. This data is essential for analysis, optimisation, and decision-making and also event tracking for specific actions like downloads, clicks on outbound links, or engagement with interactive elements.

- **IBM Cognos for data visualisation:**

  IBM Cognos is a data analytics platform that includes data visualisation capabilities. You can use IBM Cognos to create interactive and insightful data visualisations, such as charts, graphs, and dashboards, to help you gain valuable insights from your data.

- **Integrating Python code:**

  Integrating Python code for advanced analysis in IBM Cognos can provide you with additional analytical capabilities and flexibility.We can use Python scripts to perform custom data transformations, calculations, and advanced analytics.

Benefits:

The significance of this project is offering several important benefits, both for individuals and businesses. Website traffic data empowers to make informed decisions about website improvements, marketing investments, and content creation. It reduces guesswork and supports decision-making process. Over time, traffic analysis can provide insights into long-term trends, helping in develop and adjust your digital strategy for sustainable growth.

Challenges :

Various challenges that can be faced during this projects are Data Volume, Data Accuracy, Data Sources, Data Privacy, Real-time Analysis, Cross-Device and Cross-Platform Tracking, User Identification, Attribution Modelling, Data Interpretation, Technical Expertise, Content and User Behaviour Analysis, Mobile Optimisation, Security Concerns, Benchmarking, Continuous Improvement.

Key deliverables:

Here are several key deliverables that provide valuable insights into a website's performance like the number of visitors, page views, sessions, and unique users provide an overview of website traffic volume.Information about the age, gender, location, and device usage of website visitors can inform content and advertising strategies.

Design Thinking:

Analysis Objectives:

Empathise: Develop a comprehensive understanding of the target users or stakeholders. This includes their demographics, roles, responsibilities, and any specific characteristics that might influence their needs.

Define: Ensure that the defined problem aligns with the needs and goals of the user personas created in the "Empathise" phase. It should directly address the challenges these personas face.

Ideate: Promote collaboration among individuals with diverse backgrounds, skills, and perspectives. Cross-functional teams can bring a variety of insights to the ideation process.

Prototype: It involves creating tangible representations of ideas generated during the ideation phase.

Data Collection:

Empathise: Data source (Kaggle) and the nature of the data available. Consider any limitations or biases in the data.

Define: Data nee to be collected from kaggle dataset and define the data collection process, including the frequency of data updates, data cleaning steps, and data storage.

Ideate: The ways to extract and preprocess the data from Kaggle to ensure it aligns with the project objectives.

Prototype: Create a data collection plan, which outlines the steps for acquiring, cleaning, and storing the data from Kaggle.

Visualization:

Empathise: It can help teams better understand user experiences, needs, and pain points by the process of visualisation.

Define: It play a crucial role in this phase by helping to distill complex information and insights into a more understandable and actionable form.

Ideate: It's all about fostering creativity, facilitating brainstorming, and generating innovative ideas.

Prototype: Create prototype visualizations using IBM Cognos. Creating tangible representations of ideas and concepts to turn them into actionable prototypes.

Python Integration:

Empathise: Use Python to collect and analyze user data, such as feedback or usage patterns, to inform the development process.

Define: Clearly define the problem or challenge you aim to solve using Python. Use insights from the empathy phase to create a problem statement.

Ideate: Use Python to facilitate brainstorming sessions with cross-functional teams. Encourage participants to share ideas for solving the defined problem.

Prototype: Develop visual prototypes of your Python-based solutions. These can include wireframes, mockups, and interactive prototypes.

Note:

This project aims to analyze and understand the traffic patterns, user behavior, and performance of our website By leveraging various analytics tools and methodologies, we intend to gain actionable insights that will help us optimize the user experience, increase user engagement, and achieve our business objectives.