PHASE 2 : INNOVATION Customer Churn Prediction

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Introduction:

Customer Churn Prediction is the process of collecting, examining, and interpreting data related to the visitors and interactions on a website. It provides invaluable insights into user behavior, preferences, and trends.

Problem Statement:

The problem of "Customer Churn Prediciton" lies in the need for organizations to effectively understand and leverage user behavior on their websites

OBJECTIVES

1. Data Acquisition:

Download and import the dataset from kaggle into your analytics environment.

2. Exploratory Data Analysis (EDA):

Conduct EDA to understand the dataset's characteristics, patterns, and correlations. Visualize key metrics and trends in website traffic.

3. Analysing the Data:

Regularly analyze data collected from the real-time analytics tools and experiments. Adjust strategies based on insights derived from the dataset.

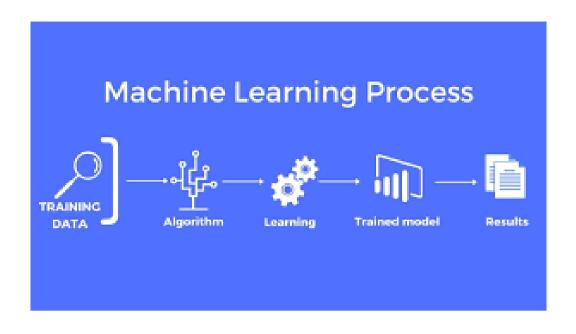




MACHINE LEARNING MODEL

Regression Analysis: Linear regression or more advanced methods like
polynomial regression can be used to model and predict traffic trends
over time.

- ☐ Time Series Analysis: Techniques like ARIMA (AutoRegressive Integrated Moving Average) can help in forecasting website traffic based on historical data.
- ☐ Classification Algorithms: These can be used to categorize website visitors, such as decision trees, random forests, or support vector machines, to identify different user segments or traffic sources.
- ☐ Recommendation Systems: Collaborative filtering or content-based recommendation algorithms can be be used to suggest content to users based on their behavior.



VISUAL METHOD

- 1. <u>Bar Charts:</u> Bar charts are useful for displaying metrics like the number of page views, unique visitors, or bounce rates over a specific time period. You can create bar charts to compare different time intervals or website sections.
- **2.** <u>Line Charts</u>: Line charts are effective for showing trends in website traffic data, such as changes in visitor numbers over time. They can help identify seasonal patterns and long-term trends.
- **3.** <u>Pie Charts</u>: Pie charts can be used to represent the distribution of traffic sources, showing the percentage of traffic coming from direct visits, search engines, social media, etc.

4. <u>Area Charts:</u> Area charts are similar to line charts but can be used to display the cumulative effect of website traffic data over time. They are good for visualizing total page views or unique visitors.

Dashboards:

Dashboards in IBM Cognos allow you to combine various visualizations and key metrics on a single screen, offering a comprehensive overview of website traffic.

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