CAPSTONE PROJECT 1
Power BI Dashboarding project proposal
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1. Executive Summary:

Our project aims to develop a Power BI dashboard that provides comprehensive insights into the factors contributing to obesity. By analyzing various aspects such as dietary habits, physical activity, and lifestyle choices, the dashboard will assist healthcare professionals, policymakers, and individuals in understanding and addressing the obesity epidemic more effectively.

2. Problem Statement:

Background: Obesity has become a significant public health concern worldwide, leading to various chronic diseases and reducing overall quality of life. Despite efforts to combat obesity, understanding its underlying causes and developing targeted interventions remain challenging.

Objective: This project seeks to leverage data analysis techniques to identify key factors contributing to obesity and visualize actionable insights through an interactive Power BI dashboard.

Scope: The focus will be on analysing dietary habits, physical activity, and technology usage across different demographics to uncover patterns and trends associated with obesity.

3. Data Sources:

- We will utilize a dataset containing information on gender, age, height, weight, dietary habits, physical activity**.**

4. Methodology:

Data Integration:

- Extract and preprocess data from the obesity dataset, ensuring data quality and consistency.
- Integrate the processed data into Power BI for further analysis.

Dashboard Design:

- Identify key health and lifestyle metrics relevant to obesity.
- Design visually appealing dashboards to provide insightful visual representations of these metrics.

Interactivity:

- Implement interactive features for drill-down analysis, trend exploration, and filtering by various attributes such as gender, age, dietary habits, and physical activity levels.
- Ensure the dashboards allow for intuitive and user-friendly exploration and analysis of the data.

5. Expected Outcomes:

- Identification of key factors influencing obesity, such as dietary patterns, physical activity levels, and lifestyle choices.
- Development of an interactive Power BI dashboard that enables users to explore obesity-related insights, trends, and correlations.

6. Tools and Technologies:

- Microsoft Power BI: For dashboard development and visualization.
- Python: For data preprocessing, exploratory data analysis.
- SQL: For data querying and manipulation.

7. Risks and Challenges:

- Data cleaning: Making sure that the raw data is clean and in order.
- Data Quality: Ensuring the accuracy and completeness of the dataset is crucial for meaningful analysis.
- Interpretability: Communicating complex analytical findings in a clear and understandable manner through the Power BI dashboard.

8. Conclusion:

The proposed Power BI dashboard for obesity analysis holds immense potential to contribute to the understanding and mitigation of the obesity epidemic. By leveraging data-driven insights, healthcare professionals, policymakers, and individuals can make informed decisions and implement targeted strategies to promote healthier lifestyles and combat obesity effectively. Through this project, we aim to facilitate a positive impact on public health outcomes and contribute to the well-being of individuals and communities.