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**Northeastern University**

**College of Professional Studies - ITC 6460 Cloud Analytics**

**Final Project Description**

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**Project Overview**

Obesity stands as a significant public health concern in the United States, impacting countless individuals across all age groups. It is characterized by having a body mass index (BMI) of 30 or higher, with BMI calculated using a person's height and weight. This condition represents a prominent risk factor for numerous chronic diseases, such as heart disease, stroke, type 2 diabetes, and certain forms of cancer.

**AWS Services**

AWS Services for the Project:

* AWS S3: This scalable object storage service is ideal for handling large volumes of data due to its user-friendliness.
* AWS Glue: Combining data cataloging and ETL capabilities, Glue enables data preparation for AWS Athena compatibility.
* AWS Athena: A user-friendly interactive query service for data analysis from S3, particularly suited for large datasets.
* AWS QuickSight: QuickSight is a business intelligence service that makes it easy to create and share interactive dashboards and visualizations.

**Challenges of this project**

* Data cleaning: The data for this project may contain errors and inconsistencies. It is important to clean the data before analyzing it.
* Data analysis: The data for this project is complex and large. It is important to use the right tools and techniques to analyze the data.
* Data visualization: It is important to visualize the results of the data analysis in a way that is easy to understand.

The project demo will show how to use AWS services to analyze obesity rates by age group in the USA. The demo will cover the following steps:

1. Data analysis: The demo will show how to use AWS Athena to query the data and analyze the trends in obesity rates by age group.
2. Data visualization: The demo will show how to use AWS QuickSight to visualize the results of the data analysis. The demo will create visualizations showing the trends in obesity rates by age group, as well as the age-adjusted obesity rates.