**Scripting**

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**Assignment 3**

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**Cloud Storage Cost Calculator:**

**Problem:**

The growing reliance on cloud storage solutions has made cost estimation an essential task for individuals and businesses managing their data. Cloud providers like AWS and GCP offer flexible pricing models, but understanding these costs can be complex. This project addresses the problem of calculating cloud storage costs dynamically, helping users make informed decisions about their data storage needs.

**Solution Overview**

The **Cloud Storage Cost Calculator** simplifies the cost estimation process by automatically fetching pricing data from cloud providers' official websites and performing calculations based on user input. The program:

* Scrape the latest pricing data from AWS and GCP official pricing pages.
* Allows users to input storage details, including provider, storage type, data size, and access frequency.
* Dynamically calculates the estimated monthly cost and presents it to the user in a clear format.

**Libraries Used**

The project leverages three key Python libraries to implement the solution:

1. **requests**

Used to make HTTP requests to cloud providers' official pricing pages.

Enables fetching of live pricing data for AWS and GCP.

Handles potential errors gracefully, such as failed connections or inaccessible pages.

1. **BeautifulSoup**

Part of the bs4 package, it is used for parsing HTML content retrieved from the cloud providers' websites.

Extracts relevant pricing information from the structured HTML of pricing pages, such as per-GB storage and access costs.

1. **math**

Used to perform precise calculations and round off results to two decimal places for user-friendly presentation.

Ensures accurate representation of costs, especially when combining storage and access fees.