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Module 11 Written Assignment: Languagelayer API

CSD 420

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**Languagelayer API**

**Introduction**

Languagelayer is a REST API with JSON response formatting that has powerful language detection capabilities and supports over 170 languages that are used across the globe. REST (representational state transfer) APIs operate by allowing communication between different systems over the internet (Bansal, 2018). Languagelayer is hosted by APILayer, an API marketplace that curates trustworthy and reliable APIs (APILayer, 2024). Other popular APILayer APIs include Marketstack, Weatherstack, Aviationstack, and Numverify (APILayer, 2024).

Languagelayer can enhance user experience, especially for global applications that have a multi-national user base by enabling automatic tailoring and customization based on the user’s preferred language. Additionally, Languagelayer can better analyze and respond to user input and better recognize spam.

**How it works**

Languagelayer uses a continually learning AI algorithm to determine the probability of a series of characters belonging to a specific language. This works by checking the query against known trigrams or n-grams (groups of two or three characters that form syllables, i.e., wha, eau, etc.) (Languagelayer API, n.d.). These first steps help narrow down which language the text follows, but can’t determine the exact language because many languages use similar words and structures, like Italian vs. Spanish vs. Portuguese. Next, each word in the query is checked in reference to commonly used words in a language (Languagelayer API, n.d.). The last step splits words into smaller bits and assesses the probability of how likely patterns are to occur in a language (Languagelayer API, n.d.). For example, letter combinations that are likely to occur in English include TH, SC, WH, etc. Languagelayer also has advanced features that can further classify a language by region or accent. Languagelayer also uses 256-bit encryption and allows users to establish a secure connection when using a basic plan or higher (Languagelayer API, n.d.).

**Features**

Languagelayer offers a free version of the API that has more limited features and a limited number of allowed API requests compared to the paid versions. The basic plan costs $53.99 annually, and allows 50,000 API requests and batch detection, unlike the free version, which only supports standard queries (Languagelayer API, n.d.). Below is an example of what a query using Languagelater can yield (Languagelayer API, n.d.):

A screenshot of a computer

AI-generated content may be incorrect.

Responses to queries in Languagelayer not only provide the language of the text that was put through the query, but also data about the likelihood of an accurate response and whether the API is sure about the result or not (Languagelayer API, n.d.). Below is how this looks, with the probability figure being a score out of 100 based on how long the sample was and how well it was identified, and the percentage referring to the API’s confidence in the result (Languagelayer API, n.d.).

"success": true,

"results": [

{

"language\_code": "en",

"language\_name": "English",

"probability": 83.896703655741,

"percentage": 100,

"reliable\_result": true

}

]

**References**

APILayer. (2024). *APILayer | Hassle-free API marketplace*. Apilayer.com. https://apilayer.com/products?utm\_source=APILayerBlogPage&utm\_medium=Referral&\_gl=1

Bansal, S. (2018, September 2). *REST API (Introduction)*. GeeksforGeeks. https://www.geeksforgeeks.org/rest-api-introduction/

Languagelayer API. (n.d.). *Documentation | languagelayer API*. Languagelayer.com. https://languagelayer.com/documentation