<https://github.com/cs-ubbcluj-ro/lab-work-computer-science-2024-dragosgavrus1/tree/main/1-Mini-Language-And-Scanner/Lab%202>

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**Classes:**

**ConstantSymbolTable**

* **Purpose**: Stores constants with a name-value pair.
* **Methods**:
  + add\_constant(name, value): Adds a constant with the specified name and value.
  + get\_constant(name): Retrieves the value of a constant by its name.

**IdentifierSymbolTable**

* **Purpose**: Stores identifiers with a name-value pair.
* **Methods**:
  + add\_identifier(name, value): Adds an identifier with the specified name and value.
  + get\_identifier\_value(name): Retrieves the value of an identifier by its name.

**HashNode**

* **Purpose**: Represents a single node in the hash table's linked list for each bucket.
* **Methods**: None (used to store key and value pairs).

**HashTable**

* **Purpose**: Implements a hash table with dynamic resizing and collision handling using linked lists.
* **Methods**:
  + compute\_hash(key): Computes the hash for a given key, supporting both integers and strings.
  + insert(key, value): Inserts a key-value pair into the hash table. Automatically resizes and rehashes the table if needed.
  + get(key): Retrieves the value associated with a given key or returns None if the key is not found.
  + resize\_and\_rehash(): Resizes the hash table by doubling its capacity and rehashing all elements.

In main I test the HashTable and SymbolTable