

<https://github.com/CatalinaArba/LFTC/tree/main/Lab2>

Documentation

Overview:

This project demonstrates a basic implementation of a HashTable in Java. A HashTable is a data structure that allows you to store key-value pairs and efficiently retrieve values based on their keys.

Classes:

HashTable:

This class represents the HashTable data structure.

It allows you to put (insert) key-value pairs into the HashTable and get (retrieve) values based on keys.

It uses a hash function to compute the index for each key, and it handles collisions using a linked list.

It provides the following methods:

`put(String value)`: Inserts a string into the HashTable.

`get(String key)`: Retrieves the index associated with a given key.

Usage:

The project includes a sample main method to demonstrate how to use the HashTable:

How It Works:

The HashTable class initializes with a specified capacity.

The put method hashes the given string, computes the index, and adds it to the appropriate linked list.

The get method hashes the key, searches the linked list at that index, and returns the index if found.