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| TAD BinaryTree | | | | |
| BinaryTree = {(key1, value1), (key2, value2), ..., (keyN-1, valueN-1), (keyN, valueN)} | | | | |
| Inv.: { key-x ≠ key-y → value-x ≠ value-y} | | | | |
|  | Operation | Input | Output | Type |
| 2 | BinaryTree() |  | Instance of BinaryTree | Constructor |
| 3 | put (K key, V value) | K key, V value |  | Modifier |
| 4 | get(K key) | K key | V | Analyzer |
| 5 | containsKey(K key) | K key | boolean | Analyzer |
| 6 | remove(K key) | K key |  | Modifier |
| 7 | length() |  | int | Analyzer |
| 8 | getIndex(K key) | K key | Int | Analyzer |

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| BinaryTree() |
| Type: Constructor |
| Create an instance of BinaryTree empty |

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| put(K key, V value) |
| Type: Modifier |
| Adds the key-value pair to the hash table. If an entry with the same key already exists, the new value replaces the existing value. |

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| get(K key) |
| Type: Analyzer |
| Return the value of a key if exist else return -1 |

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| contains(K key) |
| Type: Analyzer |
| Validate if the key already exists on the table |

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| remove(K key) |
| Type: Modifier |
| Removes the entry with the specified key from the hash table if it exists. |

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| length() |
| Type: Analyzer |
| Return the size of the table |

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| getIndex(K key) |
| Type: Analyzer |
| Return the position of the key |