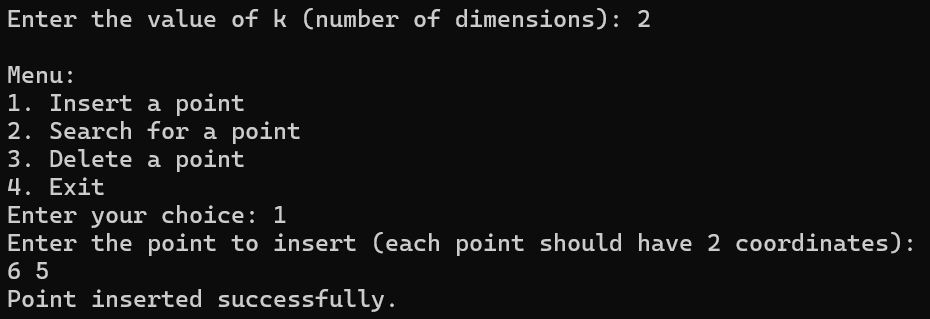
**Date: 25.04.2024**

**TEST CASES:**

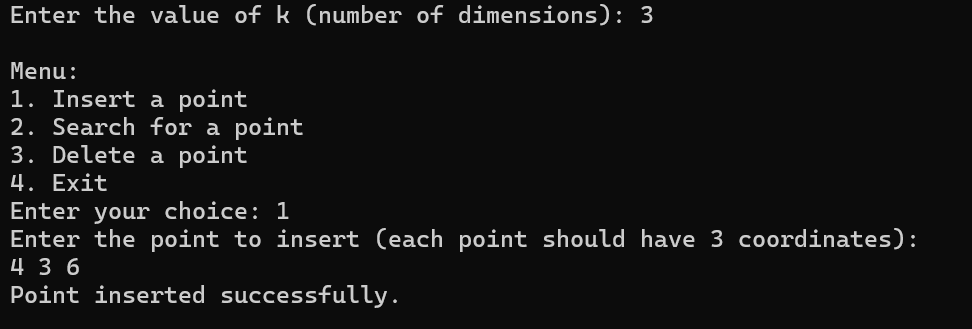
**INSERTION TEST CASES**:

* 1. Insertion of a point with k-dimensions

2-dimensional tree:

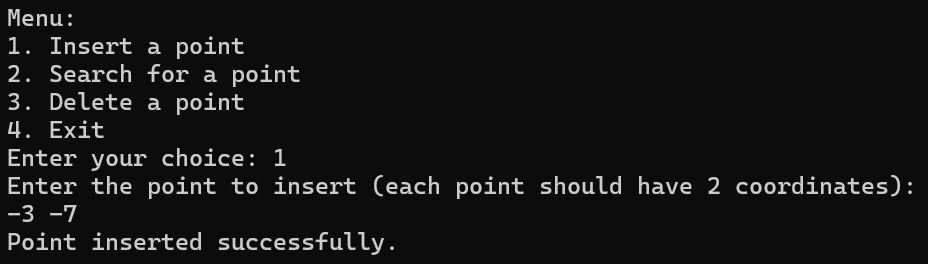


3-dimensional tree:

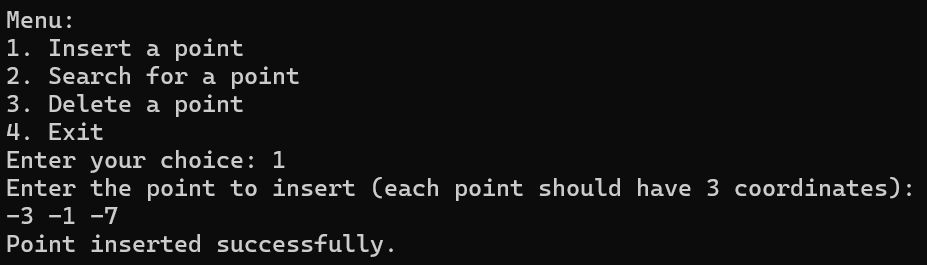


* 1. Insert points with negative coordinates.

2-dimensional tree:

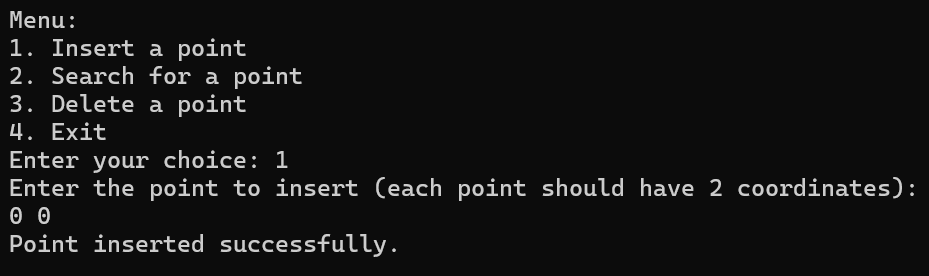


3-dimensional tree:

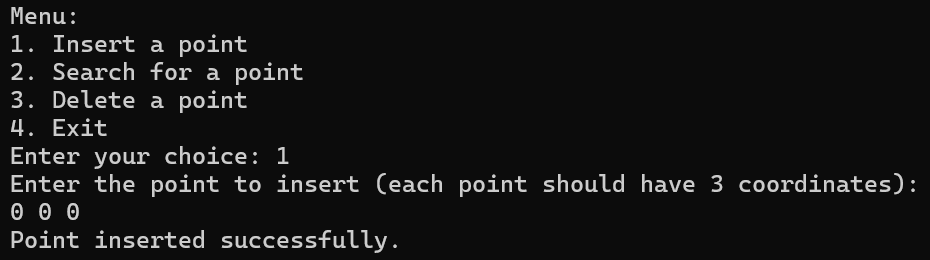


* 1. Insert points with zero coordinates.

2-dimensional tree:



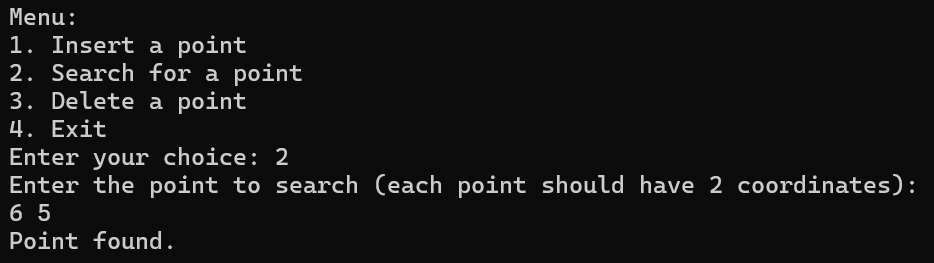
3-dimensional tree:



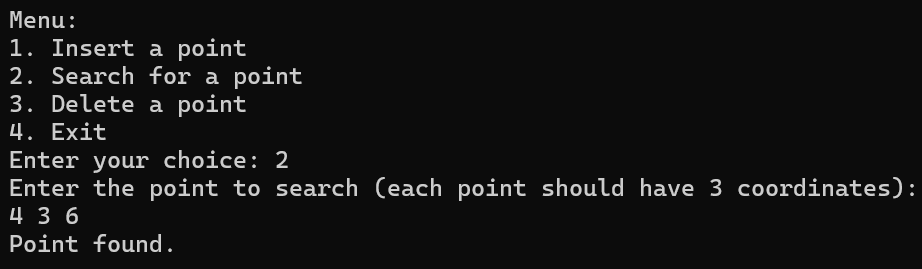
**SEARCH TEST CASES**:

* 1. Search for a point that exists in the tree.

2-dimensional tree:

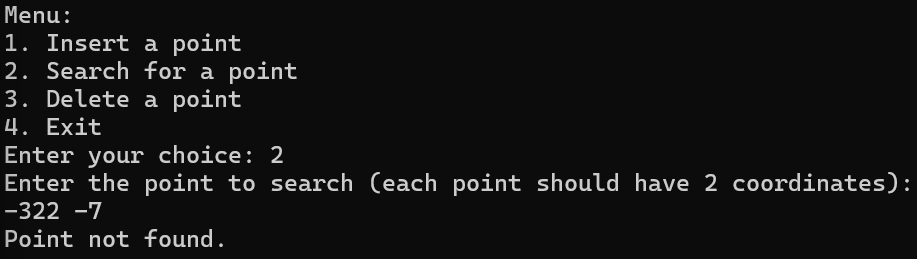


3-dimensional tree:

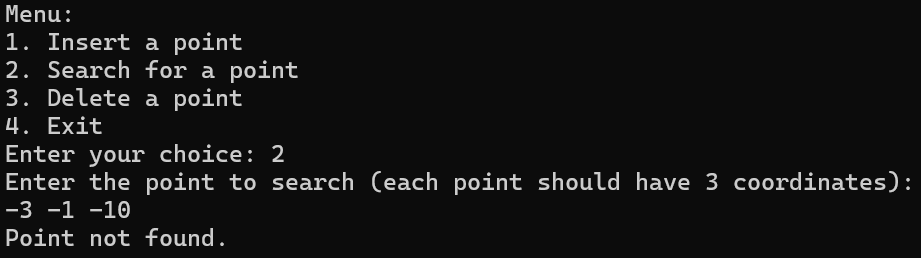


* 1. Search for a point that does not exist in the tree.

2-dimensional tree:



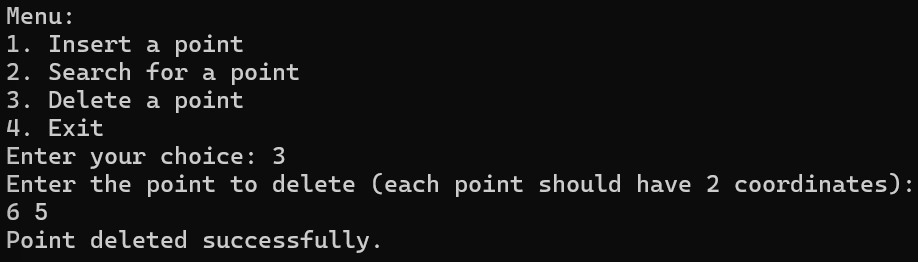
3-dimensional tree:



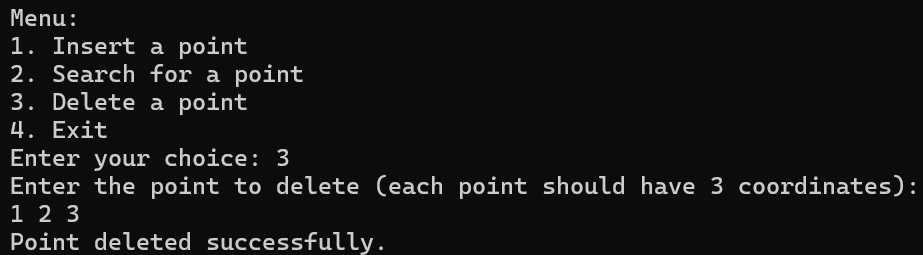
**DELETE CASES**:

1. Delete a point that exists in the tree:

2-dimensional tree:

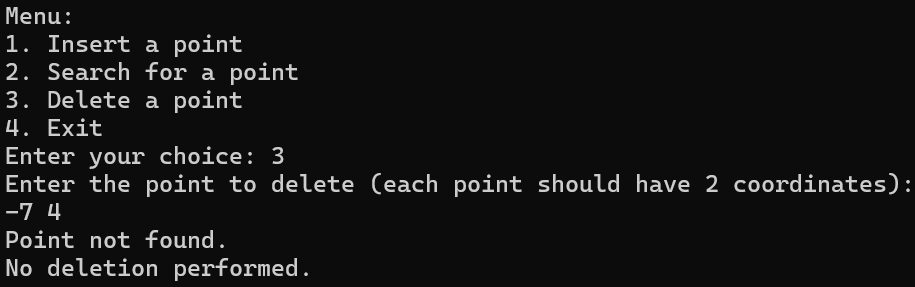


3-dimensional tree:

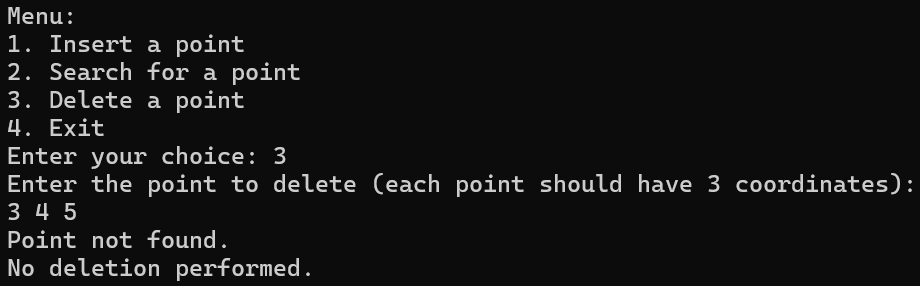


1. Delete a point that does not exist in the tree

2-dimensional tree



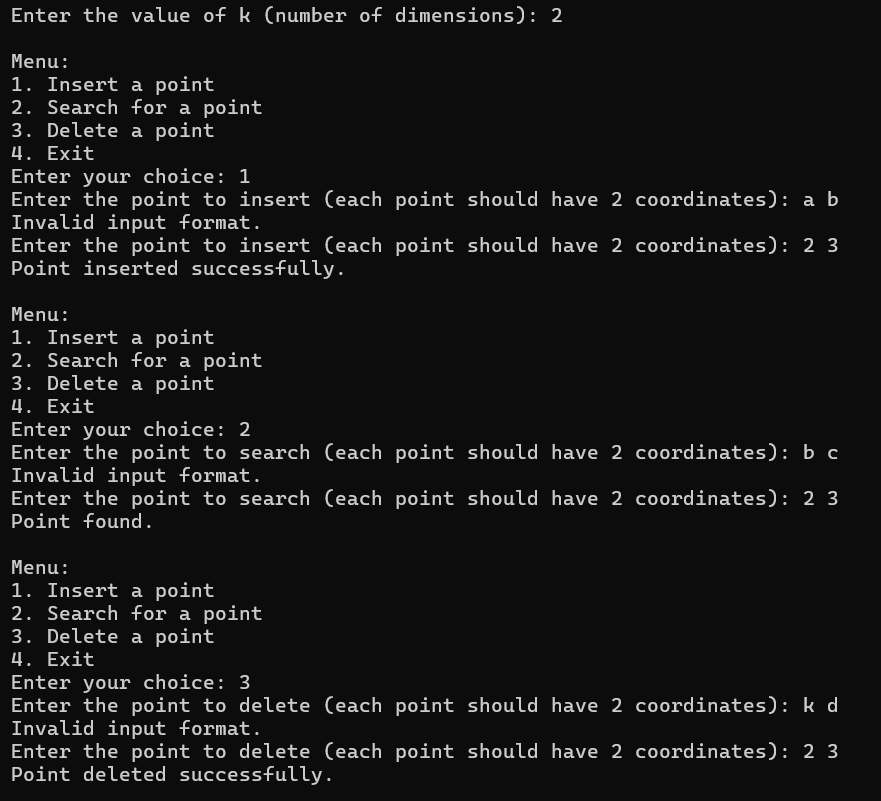
3-dimensional Tree:



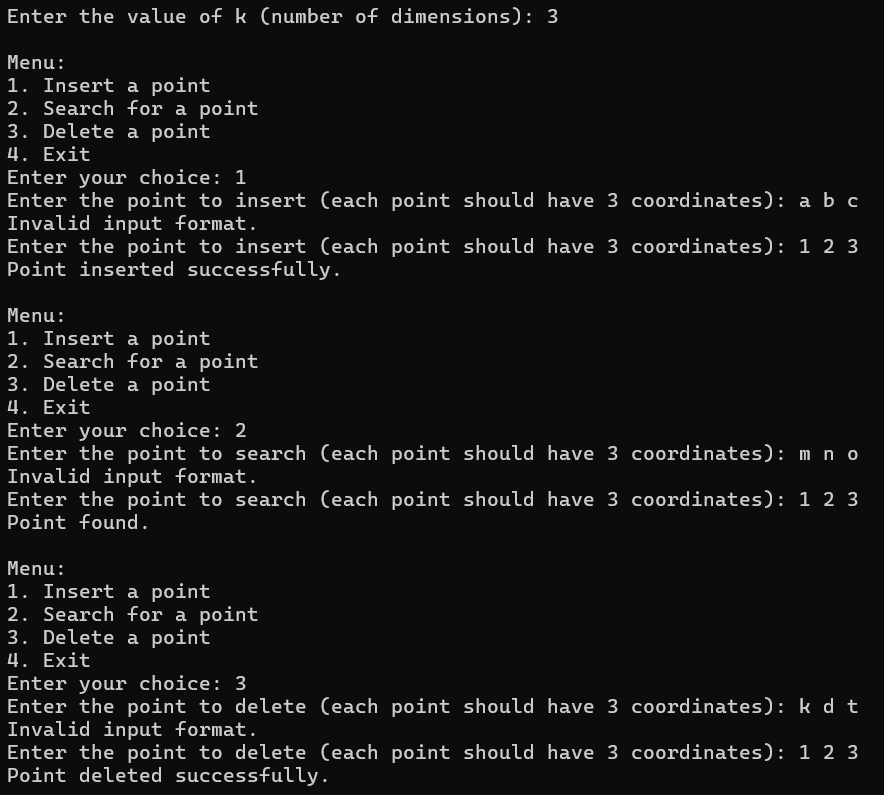
**ERROR HANDLING TEST CASES**:

* 1. Attempt to insert points with invalid input (e.g., non-integer input)

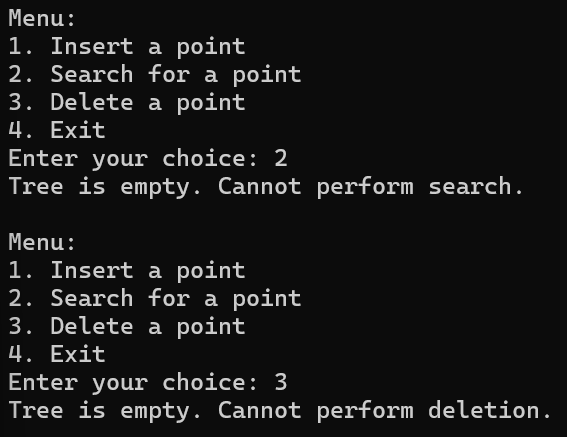
2-dimensional tree:



3-dimensional tree:

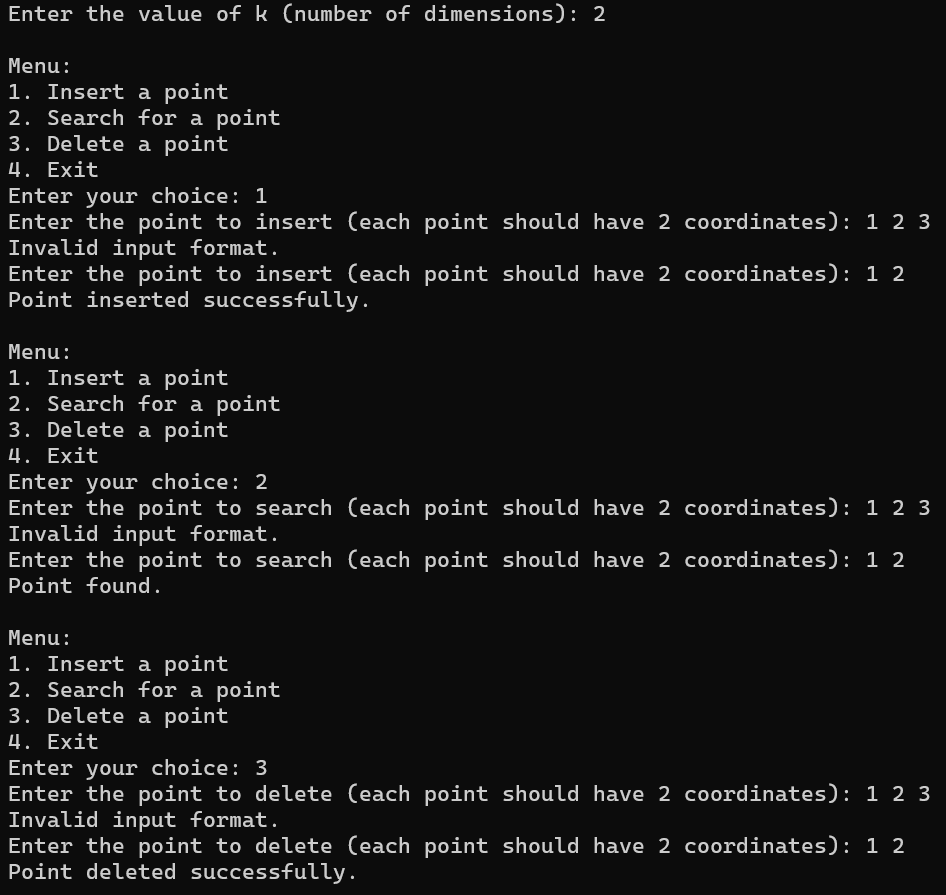


* 1. Attempt to search or delete points from an empty tree.



* 1. Attempt to enter non-integer coordinates

2- dimensional tree:



3-dimensional tree

