TANGO TREE

TESTING REPORT

>> TEST CASE 1: INSERTION

1. Insert single element

INPUT:

INSERTING 5

EXPECTED OUTPUT:

5 ||

2. Insert multiple elements

INPUT:

INSERTING 5,3,7,2 and 4.

EXPECTED OUTPUT:

“Insertion successful.”

2 || 3 || 4 || 5 || 7 ||

>>TEST CASE 2: DELETION

1.DELETING NUMBER IN BETWEEN

#INPUT:

DELETING ELEMENT 4.

EXPECTED OUTPUT:

“DELETION SUCCESSFUL”

2 || 3 || 5 || 7 ||

2.DELETING NUMBER AT THE BEG AND END

INPUT:

DELETING ELEMENTS 2 AND 7

EXPECTED OUTPUT:

“DELETION SUCCESSFUL”

3 || 5 ||

3.DELETING NON EXISTING NUMBER

INPUT:

DELETING ELEMENT 9

EXPECTED OUTPUT:

“DELETION FAILED”

>>TEST CASE 3: SEARCH

1.SEARCH FOR EXISTING ELEMENT

INPUT:

SEARCH 3

EXPECTED OUTPUT:

NUMBER FOUND!!

2.SEARCH FOR NON-EXISTING ELEMENT

INPUT:

SEARCH 8

EXPECTED OUTPUT:

NUMBER NOT FOUND!!

>>TEST CASE 4: DISPLAY

1.DISPLAY ELEMENTS

INPUT:

DISPLAY

EXPECTED OUTPUT:

3 || 5 ||

2.DISPLAY EMPTY TREE

INPUT:

DISPLAY

EXPECTED OUTPUT:

EMPTY TREE

>>BOUNDARY CONDITIONS

1.INSERTING ELEMENTS IN RANDOM ORDER

INPUT:

INSERT 5,7,3,2,4.

EXPECTED OUTPUT:

SORTING TAKES PLACE.

2 || 3 || 4 || 5 || 7 ||

2.DELETING ELEMENTS INBETWEEN

INPUT:

DELETE 4.

EXPECTED OUTPUT:

ROTATION TAKES PLACE.

2 || 3 || 5 || 7 ||

3.EDGE CASE WITH INSERT/DELETE/SEARCH

INPUT:

TEST WITH VERY SMALL AND VER LARGE NUMBERS

EXPECTED OUTPUT:

CORRECT HANDLING OF EDGE CASE VALUES.

3.TEST EMPTY LIST OPERATIONS

INPUT:

PERFORM OPERATIONS ON AN EMPTY LIST(SEARC/DELETE)

EXPECTED OUTPUT:

PROPER ERROR HANDLING ON EMPTY LIST.

>>Functional Testing

1.STRESS TESTING

 # PERFORM OPERATIONS WITH A LARGE NUMBER OF ELEMENTS.

2.ERROR HANDLING

 # INPUT VALID DATA(EX: NON-INTEGER VALUES)

 # EXCEED INPUT BOUNDARIES(EX: LARGE VALUES)

3.PERFORMANCE TESTING

 # TEST TIME COMPLEXITY FOR LARGE OPERATIONS

4.MEMORY USAGE

 # MONITOR MEMORY USAGE WITH VARYING SIZES OF DATA