# CST8130 – Data Structures

# Assignment 4 – Test Plan

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## Display Phone Tree

| **Description of Test** | **Input Values** | **Output / Result** | **Pass/Fail** |
| --- | --- | --- | --- |
| * 1. User enters: User displays the tree | 1 | The List is Empty |  |
| * 1. User enters: users into the tree then displays the tree | 2  a  a  1 | Enter name of contact: a  Enter phone number for contact: a  Phone List:  a: a |  |

## Add one contact to the list

| **Description of Test** | **Input Values** | **Output / Result** | **Pass/Fail** |
| --- | --- | --- | --- |
| 1. User enters valid data | 2  a  a | Enter name of contact: a  Enter phone number for contact: a |  |
| 1. User enters duplicate values into tree | 2  a  a  2  a  a | Enter name of contact: a  Enter phone number for contact: a  Enter name of contact: a  Enter phone number for contact: a  Duplicate | |  | | --- | |

## Add Contacts From File

| **No items made in the array** |  | **Error... could not buy item** | **fail** |
| --- | --- | --- | --- |
| 1. User enters a valid filename | 3  a.txt | truetruetruetruetruetruetruetruetruetruetrue |  |
| 1. User enters a invalid filename | 3  l.txt | 3  Enter the filename to read from: l  File Not Found, ignoring...  ------------TREE---------------  >Phone List:  2: a  a: a  Height is: 2 |  |

## Save contacts to a file

| **Description of Test** | **Input Values** | **Output / Result** | **Pass/Fail** |
| --- | --- | --- | --- |
| 1. User enters an existing file | 4  <Name of output file> | File Created – successfully writes to the file |  |
| 1. User enters an non-existing file | 4  <Name of output file> | File Created – successfully writes to the file |  |
| 1. User Enters Illegal Filename | 4  / | Could not create file, / (Is a directory) |  |

## Search

| **Description of Test** | **Input Values** | **Output / Result** | **Pass/Fail** |
| --- | --- | --- | --- |
| 1. User enters a user that is not in the tree | 2  a  a  5  b  b | Contact NOT found in tree |  |
| 1. User enters a user that is in the tree | 2  a  a  5  a  a | Contact NOT found in tree | |  | | --- | |

## List out Who calls whom

| **Description of Test** | **Input Values** | **Output / Result** | **Pass/Fail** |
| --- | --- | --- | --- |
| 1. (Attempted but does not work) | 6 | Calls -> |  |

## To Exit

| **Description of Test** | **Input Values** | **Output / Result** | **Pass/Fail** |
| --- | --- | --- | --- |
| 1. Exit | 7 | Exiting… |  |