# CIS 22C Group Project
# Team 2 — Test Plan

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1. Add a new record to the database.

    (a) Select option 1

    (b) Follow the prompts, and add a record that doesn't already exist in the database.

    (c) Select option 3 (search) and follow prompts to prove that new record exists in hash table.

    (d) Select option 5 (BST printout) and follow prompts to prove that new record exists in the BST.

2. Delete a record from the database.

    (a) Select option 7 to show hash table metadata *before* deletion.

    (b) Select option 2, and input name of a record to be deleted from the database.

    (c) Select option 2 again, and try to remove the item again.

    (d) Select option 5 to verify removal from BST.

    (e) Select option 3 and use it to verify removal from hash table.

    (f) Select option 7 to show hash table metadata *after* deletion.

3. Insert a synonym into the database, to demonstrate collision resolution.

    (a) Select option 1, and add an item with a country name that's a corruption of another. Say "Romania" becomes "ainamoR" (due to ASCII case-sensitivity)

    (b) Basically repeat the first test to prove that the synonym was successfully added to the database.

4. [Required Easter Egg] Display team member names

    (a) Select hidden option 42. Voila!

5. Demonstrate Binary Search Tree orders items correctly.

(a) Select option 5. This prints out an in-order traversal of the langTree, which is a BST of the data sorted by the secondary key, *recognized language.*

(b) Manually input and delete a few records, then reprint the tree to show that they are getting added and deleted from the BST properly.

6. Binary Search Tree indented print-out.

(a) Select hidden option 47. Voila!

7. Demonstrate undo delete functionality.

(a) Select option 8, and verify that the undo stack is empty.

(b) Select option 2, and remove Romania.

(c) Select option 3, and verify that Romania cannot be found in the name table.

(d) Select option 4, and verify that Moldova is the only country in the BST with Romanian as a recognized language.

(e) Select option 8, and repeat the above options to verify that Romania has been successfully restored to the database.

8. Verify data write functionality & UndoStack Wipe

(a) Add a few items manually, and remove a few items manually

(b) Select option 6 to write the state of the database to an output file.

(c) Verify the state of the database output file. (I just realized it's supposed to be in hashTable order)

(d) Try undoing a delete after writing to the output file. It shouldn't work!