Group 8

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Team Project - Test Plan Sample (Course Database): Options and data so that anyone could use it to demonstrate the project. Make sure to test every option in your menu at least once. The test plan should include 20 to 30 relevant test cases.

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| Test # | Menu Options | Input (KEY) | Output | Remarks |
| 1. | L – List  U – unsorted | None | List printed as a table | Strings aligned to the left; numbers aligned to the right |
| 2. | L – List  C – sorted by CRN | None | CRN Sorted list printed as a table | List works |
| 3. | L – List  N – sorted by Name | None | Name Sorted list printed as a table | List works |
| 4. | L – List  T – Indented tree sorted by CRN | None | Indented tree sorted by CRN | List works |
| 5. | S – Search  C – by CRN | 12345 | Not Found | Search by CRN works |
| 6. | S – Search  C – by CRN | 10147 | Found:  CRN: 10147  Name: MATH 1A  Title: Calculus  Time: MTWR 12:30 PM-02:45 PM  Instructor: Nahrin Rashid  Location: E36 | Search by CRN works |
| 7. | S – Search  N – by name | MATH 1D | 00665, MATH 1D, Calculus, MTWR 07:30 AM-09:45 AM, Farshod Mosh, E31  00666, MATH 1D, MTWR 05:30 PM-07:45 PM, Hassan Bourgoub, E31 | Search by name works |
| 8. | A – Add a new course | 12580; | Course with CRN 00666 already exists in the Database | Insert failure. |
| 9. | S – Search  C – by CRN  D – Delete a course | 12580 |  | Delete a root pointer (CRN) |
| 10. | L – List  T – as a tree (CRN) | None | Indented list | To show that the course has been successfully deleted from the Database |
| 11. | S – Search  C – by CRN | 12580 | Not Found | To show that the course has been successfully deleted from the Database |
| 12. | A – Add a new course | New course Data (12345) | CRN: 12345  Name: aaa  Title: bbb  Time: ccc  Instructor: ddd  Location: eee | To show the add course work |
| 13. | A – Add a new course | New course Data (45678) | CRN: 45678  Name: AAA  Title: BBB  Time: CCC  Instructor: DDD  Location: EEE | To show the add course work |
| 14 | S – Search  C – by CRN | 12345 | CRN: 12345  Name: aaa  Title: bbb  Time: ccc  Instructor: ddd  Location: eee | To show course has been add to the database |
| 15. | L – List  T – as a tree (Name) | None | Indented list | To show that the new course has been successfully inserted into the Database |
| 16. | S – Search  C – by CRN  E –Edit a course  C – Edit CRN | 54321 | CRN: 54321  Name: aaa  Title: bbb  Time: ccc  Instructor: ddd  Location: eee | To show the edit works |
| 17. | S – Search  C – by CRN  E –Edit a course  N – Edit Name | ppp | CRN: 54321  Name: ppp  Title: bbb  Time: ccc  Instructor: ddd  Location: eee | To show the edit works |
| 18. | L – List  C – sorted by CRN | None | CRN Sorted list printed as a table | To show the edit works and CRN BST is changed. |
| 19. | L – List  N – sorted by Name | None | Name Sorted list printed as a table | To show the edit works and name BST is changed. |
| 20. | F – Save the file | None | None | Replace the database file with new data after inserting and deleting |
| 21. | U - Undo Delete | None | CRN: 00666  CRN: 12580  Name: MATH 10  Title: Elementary Statistics and Probability  Time: MTWR 05:30 PM-07:45 PM  Instructor: STAFF, M  Location: S16  =============================  Undo Delete Finished | Undo delete |
| 22. | L – List  C – sorted by CRN | None | CRN Sorted list printed as a table | Show the undo delete works |
| 23 | U - Undo Delete | Node | No course has been deleted | Show the undo delete does not work when no course is deleted |
| 24. | I - Database Information | None | The number of course in the database, two HSTs’ information. | Compare good and bad hash functions. |
| 25. | E - Exit | None |  | Exit and replace the database file with new data. |
| 26. | Show the txt file | None | Database txt file | To show the data is saved. |