Assignment 3 Test Plan

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Menu Testing

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| Condition | Input | Result |
| Menu input of 1 | **1** | For college: Algonquin |
| Menu input of 5 ( empty linked list) | **5** | There are no chains to fix |
| Menu input of 4 ( empty linked list) | **4** | There are no chains to verify! |
| Menu input of 3 (  Empty linked list) | **3** | There are no courses to add a new block |
| Menu input of 2 | **2** | Prompt’s user for course name. Processed per testing below. |
| Menu input of 3 | **3** | Prompt’s user to select course to add block to. Processed per testing below. |
| Menu input of 4(  Link list is not empty and has courses) | **4** | Chain for ….. is verified  Chain for …. Is not verified |
| Menu input of 1( linked list not empty) | **1** | For college: Algonquin  For course: CST8110  [  [Block 1] [Head] - 0 100 2152018 current: 24455.0 previous: 0.0,  [Block 2] - 12412 82 112371 current: 1418.0 previous: 24455.0,  [Block 3] [Tail] - 124131 90 2174617 current: 26123.0 previous: 0.6833359,]  For course: CST8888  [  [Block 1] [Head] - 0 100 2152018 current: 24455.0 previous: 0.0,]  For course: CST8130  [  [Block 1] [Head] - 0 100 2152018 current: 24455.0 previous: 0.0,  [Block 2] - 1241231 90 124818 current: 15524.0 previous: 24455.0,  [Block 3] [Tail] - 124131 87 1238178 current: 15481.0 previous: 0.9638768,]  For course: CST81111  [  [Block 1] [Head] - 0 100 2152018 current: 24455.0 previous: 0.0,] |
| Menu input of 5 | **5** | Chains to fix. Processed per testing below |
| Menu input of 6 | **6** | Ends the program |
| Character input: ‘A’ | **A** | Invalid choice… select an option 1-6 |
| Above boundary: 7 | **7** | Invalid choice… select an option 1-6 |

Course Name testing

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| Condition | Input | Result |
| Good(add valid Course name) | **CST8110** | Successfully create course CST8110 |
| Bad(create Course with same name) | **CST8110** | Cannot add course with same name  Enter the name of course to add: |

Add Block Testing

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| Condition | Input | Result |
| add a good block | **0, g, 2282018, 54321, 66** | Successfully created a good student block in chain. |
| add a bad block | **0, b, 1962018, 12487, 88** | Successfully created a bad student block in the chain. |
| add a block to course that does not exist | **8** | Invalid entry: please reenter: |
| add a good or bad block with invalid date(char) | **abcdefg** | Invalid…enter an int for date: |
| add a good or bad block with invalid date(negative) | **-2** | Invalid entry: please enter a positive integer : |
| add a good or bad block with invalid student number (char) | **abc** | Invalid… enter an int for student number: |
| Add a good or bad block with invalid student number (negative) | **-8** | Invalid entry: please enter a positive integer : |
| Add good or bad block with invalid grade | **BD** | Invalid...enter an int for grade: |
| Add a good or bad block with invalid grade(negative) | **-8** | Invalid... enter an int for student number : |

Fix Chain Testing

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| Condition | Input | Result |
| Fix a chain that is broken | **0 ( option is CST8110)** | Chain is fixed. |
| Try to fix a chain that does not exist(above boundary) | **8( not an option)** | Invalid Entry: please reenter: |
| Try to fix a chain that does not exist(below boundary) | **-1( not an option)** | Invalid Entry: please reenter: |
| Try to fix a chain that does not exist(char) | **A( not an option)** | Invalid Entry: please reenter: |