**CS408  Design Inspection, Code Inspection, Unit Testing**

**Team 2 InfoCrawler**

**Hanxun Huang, Sun Kai, Yijie Wu, Longding Zhang, Di Yao**

1. **Design Inspection defects**

**Inspection Defect Log**

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| **Product** | InfoCrawler Design Inspection | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Moderator** | Sun Kai | | |
| **Inspectors** | Hanxun Huang, Yijie Wu, Di Yao | | |
| **Recorder** | Longding Zhang | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Arrow key not working. Java Key Listener only supported in GUI | 2 | Using other library E.g. Jline |
| 2 | Too difficult to test search function using command line as input | 3 | Build a SearchTest and setup some standard test case. |
| 3 | Some website may not using number to increment | 3 | Add a new mode search for link within the text and search them all. |
| 4 | Unorganized output in multithread mode. | 1 | Using mutex or semaphore to block other output thread |
| 5 | Only designed to use thread. | 2 | Add option to use process in multitasking. |

op up a message with error detail.

1. **Code Inspection defects**

**Inspection Defect Log**

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| **Product** | InfoCrawler Code Inspection | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Moderator** | Sun Kai | | |
| **Inspectors** | Hanxun Huang, Yijie Wu, Di Yao | | |
| **Recorder** | Longding Zhang | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Search HTML element passing null keyword | 2 | Missing “=” in if statement. |
| 2 | Only print out first page of output in repeat mode | 2 | Add a index in SearchSetting class. In thread, print out the result using that index to increment. |
| 3 | System no response when the keyword do not exist | 2 | If the no match keyword is found, printout message and return. |
| 4 | In SearchTest if the test case input is very long with two empty keyword, string.equals() not works | 2 | Change test case to shorter input length if test this condition. Or write another string compare function. |

1. **Unit Testing**

**Defect Log**

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| **Product** | InfoCrawler Search integration Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | SearchSetting Class (Store all the user setting from command line input) | | |
| **Output** | Search Result String and Print out | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Returned null SearchResult class in both mode if one of the keyword is empty | 2 | Change the SearchResult.result\_string to empty but return the SearchResult class |
| 2 | Only Return Last SearchResult class | 2 | Return SearchResult each time and change increment method in MyThread.java depends on the mode. |
| 3 | Input non-plain text file will cause java.lang.NullPointerException (Such as .pdf) | 1 | Build a method to check input file before search. |

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| **Product** | InfoCrawler Get\_URL\_Content Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | String of URL | | |
| **Output** | String of Website content | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
|  | None |  |  |

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| **Product** | InfoCrawler WordByWord Search Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | Web Content String, Start Keyword String, End Keyword String | | |
| **Output** | Search Result String[] | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | First Key is null will cause Substring function index out of bound | 1 | Check First Key is null condition |
| 2 | Last Key is null will cause index out bound | 1 | Check Second key is null condition |
| 3 | IndexOutBoundy Exception if First Key is more than Second Key | 1 | Check the number of keys in the input and change the algorithm |
| 4 | Null char after all the result | 2 | Check the null condition when store the result into SearchResult Class |

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| **Product** | InfoCrawler Regular Expression Search Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | Web Content String, Start Keyword String, End Keyword String | | |
| **Output** | Search Result String[] | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | First Key is null will cause null exception | 1 | Check First Key is null condition |
| 2 | Second Key is null will cause null exception | 1 | Check Second key is null condition |
| 3 | Concurrent execution will cause null exception | 1 | Using Semaphores or mutex when call the Pattern.compile. Add debug message to see if there are any other reason will cause this exception |
| 4 | Some HTML element will cause null exception | 1 | Conversion to HTML will converted keyword String into Null. Missing “=” in if Statement in Terminal input handling class. |

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| **Product** | InfoCrawler Command Line Input Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | User’s command line input | | |
| **Output** | SearchSetting Class | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
|  | None |  |  |

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| **Product** | InfoCrawler Filter Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | Search Result String, Remove Keyword | | |
| **Output** | Filter result String | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | IndexOutOfBound if the input is long in some test case. | 1 | Check the length of input string |

op up a message with error detail.

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| **Product** | InfoCrawler GUI Module | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | User Interface Layout, Functions of Buttons | | |
| **Output** | GUI display | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | SpringLayoutSpringLayout cannot adjust with GUI window zoom in and zoom out. | 2 | Change layout method to adjust with the window size. |
| 2 | Method and Mode should use dropdown box instead of text field | 2 | Change to dropdown box. |

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| **Product** | InfoCrawler GUI Listener | | |
| **Date** | 5/Mar/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | User Interface Layout, Functions of Buttons | | |
| **Output** | SearchSetting | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | No error message if input is not correct | 2 | Pop up a message with error detail. |