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

**Team 2 Info Crawler**

**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** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Moderator** | Sun Kai | | |
| **Inspectors** | Hanxun Huang, Yijie Wu, Di Yao | | |
| **Recorder** | Longding Zhang | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Too much Input, not very easy to use in the command line mode. | 3 | Add argv input method. |
| 2 | Search HTML Element should be separated from other keyword inputs | 2 | Add HTML input option for user |
| 3 | No input for user’s email address. | 2 | Ask for email address after user’s choice to receive notification |
| 4 | Cannot exit the program during input. Except using control + c | 2 | Build a exit function and check every time when user input command |
| 5 | Did not design output format for multiple thread output | 2 | Print job name or number before output result |
| 6 | Arrow Key does not work. Not very easy to use during input | 3 | Build a arrow key listener |
| 7 | No input history | 3 | Add input history String[] |
| 8 | No search time implemented | 2 | Add search timer inside search function. |
| 9 | Search HTML element no response | 2 | Convert html element into 2 keyword and add to search.java |

1. **Code Inspection defects**

**Inspection Defect Log**

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| **Product** | InfoCrawler Code Inspection | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Moderator** | Sun Kai | | |
| **Inspectors** | Hanxun Huang, Yijie Wu, Di Yao | | |
| **Recorder** | Longding Zhang | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | In periodic mode, input time interval can be negative causing exceptions and crash | 1 | Build a method to check negative input. |
| 2 | Word by word search will causing boundary exception and crash | 1 | Build a function to handle out of bound exception and print out error message |
| 3 | Using regular expression search will cause ArrayIndexOutOfBoundsException | 1 | Build method check error index. |
| 4 | Search result using different index range | 2 | Build a class name search\_result to unify the output |

1. **Unit Testing**

**Test Defect Log**

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| **Product** | InfoCrawler Search integration Module | | |
| **Date** | 12/02/2015 | | |
| **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 | Print out result function will cause ArrayIndexOutOfBoundsException after print out first page. | 1 | Build a class unify search result class. |
| 2 | Repeat Mode URL increment variable replace method will causing exception if “XXX” do not exist in the URL String | 1 | Check “XXX” exist in the url before call the replace method |

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| **Product** | InfoCrawler Get\_URL\_Content Module | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | String of URL | | |
| **Output** | String of Website content | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Input with “https://” no response in some case | 2 | Return error message the URL need authentication before read |
| 2 | Input non-plain text file will cause java.lang.NullPointerException | 1 | Build a method to check input file before search. |

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| **Product** | InfoCrawler WordByWord Search Module | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | Web Content String, Start Keyword String, End Keyword String | | |
| **Output** | Search Result String[] | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Search by words function got into an infinite loop | 1 | Change the termination condition in the loop |
| 2 | Search by words function throws index out of bounds exception in when the web content string is very long | 1 | Build method check error index. |

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| **Product** | InfoCrawler Regular Expression Search Module | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | Web Content String, Start Keyword String, End Keyword String | | |
| **Output** | Search Result String[] | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | Unexpected output result only using combination of two keywords | 1 | Add method to check two keywords separately. |
| 2 | Missing matched result | 1 | Add method check the number of the result of two different keyword search results. |

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| **Product** | InfoCrawler Command Line Input Module | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | User’s command line input | | |
| **Output** | SearchSetting Class | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
| 1 | In periodic mode, input time interval can be negative causing StringIndexOutOfBoundsException | 1 | Build a method to check negative input. |
| 2 | Can not go back to previous input selection | 2 | Add a function to go back to reselect. |
| 3 | In Repeat Mode, get\_url\_content only checked once using increment\_range\_from will causing exception if the URL page did not exist within the increment range. | 2 | Also check the increment\_range\_to |

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| **Product** | InfoCrawler Filter Module | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | Search Reuslt String, Remove Keyword | | |
| **Output** | Filter result String | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
|  | Did not implement yet |  |  |

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| **Product** | InfoCrawler GUI Module | | |
| **Date** | 12/02/2015 | | |
| **Author** | CS408 Team 2 | | |
| **Input** | User Interface Layout, Functions of Buttons | | |
| **Output** |  | | |
| **Defect #** | **Description** | **Severity** | **How Corrected** |
|  | Did not implement yet |  |  |