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

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.

2. Code Inspection defects

Inspection Defect Log

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.

3.   Unit Testing
Defect Log

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.

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		

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

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.

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		

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

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.

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.