

getline vs extraction (>>)

	Objectives	See the impact of differences in how getline and extraction (>>) treat whitespace.	
		Understand how to mitigate issues that may arise in using extraction before getline.	
	<i>Recall that whitespace can be spaces, tabs, end of lines, etc.</i>		
1	Download File:	search.cpp	
2	Compile program. Note: If using Visual studio, you might need to add <code>system("pause")</code>		
3	Run and put in "Howdy Miss Reveille" for the input.		
	What is output?	Searching for: Howdy	
	Explanation:	extraction (>>)	Reads from the stream/buffer until it encounters "whitespace" and then stops
4	Uncomment "getline(cin, searchTerms);" and comment out "cin >> searchTerms;"		
5	Run and put in "Howdy Miss Reveille" for the input.		
	What is output?	Searching for: Howdy Miss Reveille	
	Explanation:	getline	Reads from the stream/buffer (including spaces) until it encounters an end of line and then stops
6	Uncomment the code block surrounded by <code>/*</code> and <code>*/</code> . After that two lines should still be commented out.		
7	Compile and run using the following input if prompted. Inputs: Enter Maximum Price: 75 Enter Search Terms: Howdy Miss Reveille		
	What is output?	Searching for:	
	Explanation:	extraction (>>)	Leaves "whitespace" in stream/buffer after stopping
		getline	Reads from the stream/buffer until it encounters an end of line (since the first item is an end of line it input an empty string)
8	Try fixing by uncommenting <code>cin.clear();</code> .		
	Compile and run using the following input if prompted. Inputs: Enter Maximum Price: 75 Enter Search Terms: Howdy Miss Reveille		

	What is output?	Searching for:	
	Explanation:	clear	Set stream state to "Good" and did not modify the buffer (so no impact on what was input/output in this situation)
9	Try fixing by uncommenting "cin.ignore (numeric_limits::max(), '\n');"		
	Compile and run using the following input if prompted. Inputs: Enter Maximum Price: 75 Enter Search Terms: Howdy Miss Reveille		
	What is output?	Searching for: Howdy Miss Reveille	
	Explanation:	ignore	Removes data from the stream/buffer until it encounters the designated character (including that character) OR removes the indicated number of characters
10	Comment out "cin.clear();"		
	Compile and run using the following input if prompted. Inputs: Enter Maximum Price: 75 Enter Search Terms: Howdy Miss Reveille		
	What is output?	Searching for: Howdy Miss Reveille	
	Explanation:	clear	Set stream state to "Good" and did not modify the buffer (so no impact on what was input/output in this situation)
11	Go to "File" menu and chose "Download as" a PDF and submit to Gradescope.		