

### **Unit Testing Plan/Results for Undo() and UndoUntilCorrect()**

(Code – “Code Contributions/Sarah/GameEngine.cpp/main()”)

#### **Unit Testing Plan/Results for Undo()**

Test description	Setup	Expected result	Actual result
History empty	<ul style="list-style-type: none"><li>• Create a History stack from a minimal implementation of a history stack</li><li>• PushHistory(Entry)</li><li>• PopHistory()</li><li>• IsHistoryEmpty()</li><li>• Put nothing on the history stack</li><li>• Run Undo()</li></ul>	<ul style="list-style-type: none"><li>• Nothing</li><li>• No crash</li></ul>	<ul style="list-style-type: none"><li>• Nothing</li><li>• No crash</li></ul>
History not empty	<ul style="list-style-type: none"><li>• Create a History stack from a minimal implementation of a history stack</li><li>• PushHistory(Entry)</li><li>• PopHistory()</li><li>• IsHistoryEmpty()</li><li>• Push two values onto the stack</li><li>• Run Undo()</li></ul>	<ul style="list-style-type: none"><li>• No crash</li><li>• Print of value from PopHistory() and shows second value pushed</li></ul>	<ul style="list-style-type: none"><li>• No crash</li><li>• Print of value from PopHistory() and shows second value pushed</li></ul>

#### **Unit Testing Plan/Results for UndoUntilCorrect()**

Test description	Setup	Expected result	Actual result
History empty	<ul style="list-style-type: none"><li>• Create a History stack from a minimal implementation of a history stack</li><li>• PushHistory(Entry)</li><li>• PopHistory()</li><li>• IsHistoryEmpty()</li><li>• Put nothing on the history stack</li><li>• Run Undo()</li></ul>	<ul style="list-style-type: none"><li>• Nothing</li><li>• No crash</li></ul>	<ul style="list-style-type: none"><li>• Nothing</li><li>• No crash</li></ul>
History not empty	<ul style="list-style-type: none"><li>• Create a History stack from a minimal</li></ul>	<ul style="list-style-type: none"><li>• No crash</li></ul>	<ul style="list-style-type: none"><li>• No crash</li></ul>

	<p>implementation of a history stack</p> <ul style="list-style-type: none"> <li>• PushHistory(Entry)</li> <li>• PopHistory()</li> <li>• IsHistoryEmpty()</li> <li>• Push one correct value and two wrong values onto the stack</li> <li>• Run UndoUntilCorrect()</li> </ul>	<ul style="list-style-type: none"> <li>• Print of value from PopHistory() and shows value left in the stack</li> </ul>	<ul style="list-style-type: none"> <li>• Print of value from PopHistory() and shows value left in the stack</li> </ul>
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