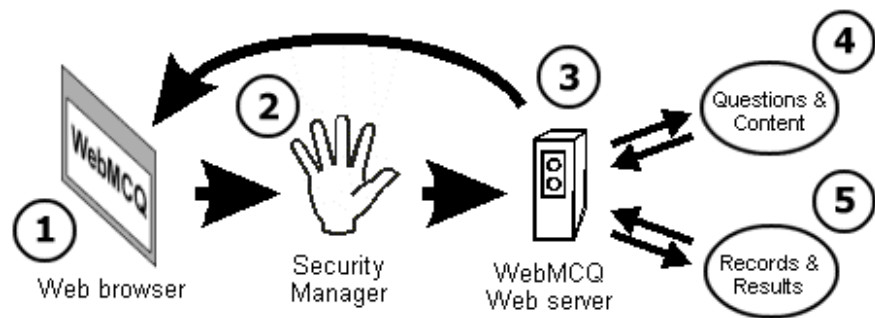


How WebMCQ Software is Accessed Online

This document describes how WebMCQ software is accessed via the World Wide Web using a specially created *virtual distribution* engine. WebMCQ software uses a standard Web-browser to present an interface that is familiar, easy to use, and accessible from any Web-connected computer. In the same way that most standard PC software presents a graphical interface inside an operating system (such as Microsoft Windows or Apple MacOS) to make it easy to accomplish various tasks on computer, WebMCQ's software presents a graphical interface inside the Web browser. The diagram below illustrates the various parts of WebMCQ's virtual distribution system.



1. Web-browser provides user-interface

After a question set (a quiz or survey) is created, its content can be accessed over the World Wide Web using a standard browser. The user makes responses, requests information and controls the software's behaviour by interacting with controls that appear in their Web-browser's windows.

2. Security Manager validates user responses

Embedded in each web page received by the user's Web-browser are hidden strings of encrypted information used to identify each user and to authenticate their attempts to access WebMCQ's software. This means that no unauthorised individuals can gain access to the WebMCQ system or question content. Authentication limits access based on criteria such as the user's ability to supply a password, the user's computer address, the time at which an access attempt is made, and access restrictions that have been set by the question administrator. If the Security Manager can not validate each request for information, the request is rejected and logged immediately.

3. WebMCQ Server acts upon validated responses

WebMCQ Server is the bridge between the users' requests for information,

their responses to questions, and the content of the questions themselves. After satisfying the Security Manager, user responses are passed to WebMCQ Server, which performs a number of tasks such as formatting questions, presenting user options, marking and recording user responses, and recording all activity. WebMCQ Server directs output back to the user's web browser according to their responses.

4. Questions and Content are used to generate Web pages

The contents of question sets are stored separately from WebMCQ Server software, but in a form that only WebMCQ Server can decipher. If the user response is a request for information (such as requesting the next question, or viewing feedback), WebMCQ Server will generate Web pages of information based on the stored content of a question set. If the user response is an instruction to perform a particular task or send information, WebMCQ Server will perform the required task accordingly.

5. Records and Results are stored centrally

As users complete questions, each response they make is recorded centrally on the WebMCQ computer. Using a password-protected account and a separate interface (WebMCQ Administration Tools), a question administrator can access this information from any Web-connected computer. WebMCQ automatically takes care of all data collection and storage. In addition to records of accuracy and how each user has answered questions, overall usage statistics can be accessed to find out how many users have accessed questions, what content they viewed, what the average score for each question was etc. This information can provide valuable information for improving the quality of content and assessing the usefulness of questions.