

Assignment 2: CGI-bin

The assignment

Build a web page with one or more forms that are backed by a CGI-bin program. The page must provide the following functions:

- (1) **Insert:** takes a name (a string) and a value (a string, possibly containing several lines) and places the name, value pair in a database. The format of the database is up to you; the simplest is a text file with one line for each name, and some sort of separator between the name and the value. If that name already exists in the database, the old value is replaced with the new one. The CGI-bin program should return the same web page, but the page should have a status line saying something like "insert successful".
- (2) **Retrieve:** takes a name (a string) and returns again the same web page, but with a status line showing the value stored for that name. If there is no value, the status line should say "no value".
- (3) **Digest:** takes a file name (a string) and computes the *sha256* digest of the file. The result is the web page with a status line indicating the digest, or an error message if the file is not accessible on the web server.

Method

You use any language available on the MultiLab machines for the CGI-bin program.

Your web page should validate without warnings or errors at the W3C online validator (accessible via the developer console).

Your CGI-bin program must not generate any errors logged by our web server.

You must sanitize inputs to prevent cross-site scripting and code-insertion attacks.

You may refer to online resources and books, but you must not share your work with others.

Turn in

Turn in your web page and CGI-bin program in a single ZIP package via Canvas.