

Antwoorden Intermediate JavaScript Programming Techniques 1

Vraag 1 van 19

Which type of error is difficult to debug?

- A. Logic.
- B. Run-time.
- C. Load-time.
- D. Syntax.

Antwoordtoets: A

Feedback:

Logic errors in the codes are difficult to debug because these are the least likely to be caught by a debugger tool. Also, logic errors may not even generate error alerts. Logic errors may cause the script to behave erratically. For example, a *while* condition that causes a while to run indefinitely. The code must be tested again and again to remove all logic errors. Run-time, load-time, and syntax errors usually cause error alerts. (Bron: <https://www.ciwcertified.com/>.)

Vraag 2 van 19

Consider the following code block:

```
var a = "10", b = 20;  
    document.write( a + b );
```

What will be the output of the given code block?

- A. 10
- B. 30
- C. 1020
- D. 2010

Antwoordtoets: C

Feedback:

The output of the given code will be **1020**. Since the variable **a** contains the string value i.e. **10**. The **+** operator performs concatenation instead of addition. So, the print statement will print the output as **1020**. (Bron: <https://www.ciwcertified.com/>.)

Vraag 3 van 19

Which type of error are you most likely to debug using watchpoints?

- A. Logic.
- B. Syntax.
- C. Run-time.
- D. Load-time.

Antwoordtoets: A

Feedback:

When you are troubleshooting a logic error, you generally use watchpoints, which help you monitor certain places in the script. For JavaScript, a typical watchpoint is the **alert()** method. You can set these alerts to display the contents of variables (to check that they are functioning correctly by ensuring the actual output matches the expected output) and to determine whether your code is reaching that point in the program. After the script has been debugged and is ready for production, you remove the alert watchpoints. (Bron: <https://www.ciwcertified.com/>)

Vraag 4 van 19

What are typical watchpoints in JavaScript?

- A. Named code blocks.
- B. Commented code blocks.
- C. Position markers.
- D. alert() methods.

Antwoordtoets: D

Feedback:

Logic errors in JavaScript are not easy to detect and are mostly skipped by debuggers. Developers use watchpoints in their code to debug logic errors. The **alert()** methods are commonly used as watchpoints in JavaScript. (Bron: <https://www.ciwcertified.com/>)

Vraag 5 van 19

Which of the following requires additional testing of the code and also helps to develop customized pages for different display sizes and methods of interaction?

- A. Mobile device.
- B. Monitor resolution.
- C. Video card quality.
- D. Browser version.

Antwoordtoets: A

Feedback:

The browsers in mobile devices perform differently because they are optimized for the limited display of a small screen and the different methods of user interaction. The user must not only test their pages in mobile devices, but may also need to develop customized pages for the audience. (Bron: <https://www.ciwcertified.com/>.)

Vraag 6 van 19

Which type of error occurs after the script has loaded and is running?

- A. Run-time.
- B. Load-time.
- C. Logic.
- D. Interpreter.

Antwoordtoets: A

Feedback:

Run-time errors occur after the script has loaded and is running, and are typically caused by improper use of commands. They usually cause error alerts. (Bron: <https://www.ciwcertified.com/>.)

Vraag 7 van 19

You work for a mid-size company with a large web site that has a very wide customer base. Which is the best method for testing your JavaScript code for this site?

- A. Test in various versions of the most popular browser.
- B. Test in various browsers, versions and operating systems.
- C. Test in various browsers, including various versions of the same browser.
- D. Determine the most frequently used browsers for your target audience, and test in those browsers.

Antwoordtoets: B

Feedback:

Testing a script in various web browsers, various versions of those browsers and various operating systems is the best way to determine the cross-browser compatibility of a script, especially for a site with a wide audience using a variety of software and systems. Operating systems can affect how browsers render, even though browser versions may be identical. All other choices limit your testing to a smaller variety of rendering and may not reveal certain display problems. (Bron: <https://www.ciwcertified.com/>.)

Vraag 8 van 19

What is a bug in the JavaScript code?

- A. A problem in a user's browser.
- B. An error in the code.
- C. An alert message.
- D. A watchpoint.

Antwoordtoets: B

Feedback:

Bugs are errors in the JavaScript code. They must be removed before releasing the code for the users because they can cause a webpage to behave erratically and repel the user. Watchpoints are code added in the script to identify errors in the script. (Bron: <https://www.ciwcertified.com/>.)

Vraag 9 van 19

The browsers in mobile devices perform differently because they are optimized for:

- A. small display monitors and touch screens.
- B. the Apple iOS operating system.
- C. the Google Chrome browser platform.
- D. inconsistent Internet connections and battery power consumption.

Antwoordtoets: A

Feedback:

The browsers in mobile devices perform differently because they are optimized for small display monitors and touch screens and the different methods of user interaction. So, users must not only test their pages in mobile devices, but users may also be required to develop customized pages for the audience. (Bron: <https://www.ciwcertified.com/>.)

Vraag 10 van 19

Which type of error causes no error alert in the browser?

- A. Logic.
- B. Interpreter.
- C. Load-time.
- D. Run-time.

Antwoordtoets: A

Feedback:

Logic errors do not cause error alerts and are not always detected by debuggers. They are mathematical errors, errors in proper command usage, or errors in the structure of the script, which result in the script running improperly. The script may return unexpected results or may fail to execute at all. (Bron: <https://www.ciwcertified.com/>)

Vraag 11 van 19

Identify the type of error in the following code block (if any):

```
document.write("Heard of the Higgs Boson?";
```

- A. Run-time.
- B. Load-time.
- C. Logical.
- D. There is no error in the code block.

Antwoordtoets: B

Feedback:

There is a syntax (load-time) error because the code block has a missing closing parenthesis. The syntactically correct statement will be:

```
document.write("Heard of the Higgs Boson?");
```

(Bron: <https://www.ciwcertified.com/>)

Vraag 12 van 19

Which type of error is typically a syntax error?

- A. Load-time.
- B. Mathematical.
- C. Logic.
- D. Run-time.

Antwoordtoets: A

Feedback:

Load-time errors are commonly called compiler or interpreter errors and are typically syntax errors. They usually cause error alerts. (Bron: <https://www.ciwcertified.com/>)

Vraag 13 van 19

Why is it generally easier to debug run-time and load-time errors than to debug logic errors?

- A. Because logic errors are rarely caught by debugging tools.
- B. Because logic errors cause error alerts.
- C. Because syntax errors are rarely caught by debugging tools.
- D. Because run-time and load-time errors prevent the script from rendering at all.

Antwoordtoets: A

Feedback:

Debugging load-time errors and run-time errors is often easier than debugging logic errors because logic errors are rarely caught by debugging tools. Load-time errors and run-time errors cause error alerts, whereas logic errors tend to result in the script, either rendering unexpected results or no results at all. Thus, logic errors can be much trickier to troubleshoot.

Run-time errors occur after a script has loaded and is running, and are typically caused by improper use of commands. Load-time errors are typically syntax errors. Logic errors are mathematical errors, errors in proper command usage, or errors in the structure of the script, which result in the script running improperly. (Bron: <https://www.ciwcertified.com/>)

Vraag 14 van 19

You should always test your script on as many browsers as possible, and using as many resolutions as feasible. But at a minimum, you should test your webpages:

- A. on Internet Explorer, Firefox, Chrome, and Safari.
- B. on Microsoft Internet Explorer.
- C. on Microsoft Internet Explorer and Mozilla Firefox.
- D. on Mozilla Firefox and Google Chrome.

Antwoordtoets: A

Feedback:

You should always test your script on as many browsers as possible and using as many resolutions as feasible. At a minimum, you should test your pages on Internet Explorer, Firefox, Chrome, and Safari.

Consider that each browser runs its own flavor, or type of JavaScript (e.g., Internet Explorer uses JScript, whereas Firefox and Chrome use native JavaScript but in different ECMA [European Computer Manufacturers Association] interpretations). However, a webpage does not render differently just because of JavaScript code. Browsers can appear to behave differently for several reasons, including monitor

resolution, video card quality and settings, browser version, script interpretation, the end user's CPU speed and RAM, and mobile devices. Checking your script in different browsers can save your endless hours of debugging later. (Bron: <https://www.ciwcertified.com/>)

Vraag 15 van 19

Which type of error is typically caused by improper use of commands and usually causes an error alert?

- A. Run-time.
- B. Load-time.
- C. Compiler.
- D. Logic.

Antwoordtoets: A

Feedback:

Run-time errors occur after the script has loaded and is running, and are typically caused by improper use of commands. They usually cause error alerts. (Bron: <https://www.ciwcertified.com/>)

Vraag 16 van 19

In programming, what term is used for the process of troubleshooting and repairing code that does not work properly?

- A. Debugging.
- B. Interpreting.
- C. Compiling.
- D. Testing.

Antwoordtoets: A

Feedback:

In relation to computer programming, scripting, and web development, the term debugging means troubleshooting and repairing code that does not work properly. Debugging is a part of the code development process. Testing is one step of the debugging process. (Bron: <https://www.ciwcertified.com/>)

Vraag 17 van 19

Identify the type of error in the following code snippet (if any):

```
document.writenl("JavaScript code has hidden errors!");
```

- A. Run-time.
- B. Load-time.
- C. Logical.
- D. There is no error in the code block.

Antwoordtoets: A

Feedback:

The statement contains a run-time error. The statement is syntactically correct, but it is trying to call the **writenl** method that does not exist. The correct statement which will run successfully is:

```
document.write("JavaScript code has hidden errors!");
```

(Bron: <https://www.ciwcertified.com/>.)

Vraag 18 van 19

In JavaScript, what is a typical watchpoint?

- A. An alert() method.
- B. A logic error.
- C. An infinite loop.
- D. A syntax error.

Antwoordtoets: A

Feedback:

When you are troubleshooting a logic error, you generally use watchpoints, which help you monitor certain places in the script. For JavaScript, a typical watchpoint is an **alert()** method. You can set these alerts to display the contents of variables (to check that they are functioning correctly by ensuring the actual output matches the expected output) and to determine whether your code is reaching that point in the program. After the script has been debugged and is ready for production, you remove the alert watchpoints. (Bron: <https://www.ciwcertified.com/>.)

Vraag 19 van 19

Which of the following is a tool that is used to help find errors in JavaScript code?

- A. Compiler.
- B. Debugger.
- C. Interpreter.
- D. Script library.

Antwoordtoets: B

Feedback:

The tool used to debug code or find errors in JavaScript code is named as a debugger. (Bron: <https://www.ciwcertified.com/>)