Runtime Error

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Definition

A **Runtime Error** is an error that occurs when a program you're using or writing crashes or produces a wrong output. At times, it may prevent you from using the application or even your personal computer. In some cases, users need only refresh their device or the program to resolve the **Runtime Error**. However, sometimes, users may have to perform a particular action to fix the error.

Runtime Errors are of various types, including logic and encoding errors. Such errors are caused by unpatched bugs in the software build or used up memory. Simple fixes include reinstalling the affected program, updating it with a newer iteration, or operating it in Safe Mode.

Before a **Runtime Error** shows up on your computer, you may have noticed its performance slowing down. When **Runtime Errors** occur, your computer will always display a prompt stating the specific type of error you've encountered.

Common Types of Runtime Error

To understand what constitutes a runtime error better, let's take a look at some of its common forms, which include:

Logic Error

A logic error occurs when a developer enters the wrong statements into the application's source code. With if-then statements, for example, developers would sometimes make the mistake of leaving the logical values to revert to "true." Many runtime errors fall under this category.

Memory Leak

Memory leaks happen when a program drains your computer's random access memory (RAM). It often arises from unpatched software, such as when you fail to update your operating system (OS) to the newest release.

Division by Zero Error

Division by zero (DIV/0) is an error associated with Excel workbooks. When formula inputs in the spreadsheet are left blank, the total might display a DIV/0 error. The cell formulas need to be formatted in a precise manner to produce the correct output.

Undefined Object Error

An undefined object error happens when a program attempts to call a function for a PHP or JavaScript object (or a C++ variable) that isn't defined or assigned a value. The error also occurs for deeply nested objects. In simpler terms, the code "cannot read" or find where a property is because it does not exist or is buried several levels deep within the code.

Input/Output Device Error

Input/Output (I/O) device errors occur when issues arise with the read/write function of a device. Common causes include device malfunction, outdated drivers, OS incompatibility, and faulty universal serial bus (USB) ports. As a result, users would get a prompt saying that the device wasn't accessible, making it impossible to transfer or encode files into it. Usually, the memory drive or the computer only needs to be restarted to get rid of the issue.

Encoding Error

Encoding errors happen when you're rendering a file, say a video file, to convert it into a usable or accessible file format. This is due to the resource-intensive nature of the encoding process. Error messages linked to this type of error include "encoding overloaded" or "encoding failed."

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