

SELENIUM WEBDRIVER EXCEPTIONS WITH EXAMPLE

Here are the most important **exceptions** that QA testers commonly face while working with **Selenium WebDriver**.

- **NoSuchElementException:** Thrown when an element with the given locator is not found in the DOM.
- **Example:** If an element with a specific ID is not present on the page when trying to interact with it.

- **TimeoutException:** Thrown when a command takes longer than the specified wait time to complete.
- **Example:** If an element is not found within the time specified in an explicit wait.

- **ElementNotVisibleException:** Thrown when an element is present in the DOM but is not visible (not displayed).
- **Example:** Attempting to click on an element that is hidden from view.

- **StaleElementReferenceException:** Thrown when an element is no longer attached to the DOM.
- **Example:** This occurs when the DOM structure changes and the previously found element is no longer valid.

- **NoSuchWindowException:** Thrown when trying to switch to a window that is not available.
- **Example:** When attempting to switch to a window that has been closed.

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- **NoSuchFrameException:** Thrown when trying to switch to a frame that does not exist.
- **Example:** Trying to switch to an iframe that is not present on the page.

- **InvalidElementStateException:** Thrown when performing an action on an element that is not possible.
- **Example:** Entering text into a disabled text field.

- **WebDriverException:** A general exception that is thrown when something goes wrong while interacting with WebDriver.
- **Example:** A failure in initializing WebDriver.

- **JavaScriptException:** Thrown when there is an issue executing JavaScript via Selenium's executeScript method.
- **Example:** Executing an invalid JavaScript function.

- **ElementClickInterceptedException:** Thrown when an element is clicked, but another element obstructs the click.
- **Example:** A modal dialog is blocking a button from being clicked.

- **NoAlertPresentException:** Thrown when trying to switch to an alert, but no alert is present.
- **Example:** Attempting to handle a JavaScript alert that hasn't appeared yet.

- **MoveTargetOutOfBoundsException:** Thrown when trying to move the mouse to an area outside the viewable document or screen.
- **Example:** Interacting with elements that are off the visible part of the webpage.

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- **SessionNotFoundException:** Thrown when attempting to interact with a browser session that has been closed or not initialized.
- **Example:** When trying to perform actions after closing the browser window.

- **InvalidSelectorException:** Thrown when a selector used to find an element is invalid.
- **Example:** Using an incorrect XPath or CSS selector syntax.

- **ElementNotSelectableException:** Thrown when an element is present but cannot be selected.
- **Example:** Attempting to select an element that is disabled.

- **NoSuchAttributeException:** Thrown when an attribute of an element is not found.
- **Example:** Trying to access a non-existent attribute of an element.

- **UnhandledAlertException:** Thrown when there is an unhandled alert present, and the WebDriver is unable to perform any action.
- **Example:** Trying to click an element while an alert box is open.

- **InvalidArgumentException:** Thrown when an invalid argument is passed to a command.
- **Example:** Providing incorrect parameters to a WebDriver method.

- **ImeNotAvailableException:** Thrown when input method editor (IME) support is not available.
- **Example:** This can occur in mobile automation when IME is required but unavailable.

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- **ImeActivationFailedException:** Thrown when activating the IME engine fails.
- **Example:** Happens when trying to activate an input method editor on certain devices during mobile testing.

- **NotFoundException:** A general exception class that is the parent of various specific "not found" exceptions such as NoSuchElementException, NoSuchFrameException, etc.
- **Example:** It can be used when specific exceptions are not detailed enough.

- **NoSuchSessionException:** Thrown when WebDriver is used after the session is closed or does not exist.
- **Example:** If you try to interact with WebDriver after calling driver.quit.

- **InvalidCoordinatesException:** Thrown when the coordinates provided to an action (like mouse movement) are invalid.
- **Example:** Providing coordinates outside the bounds of the current screen.

- **UnhandledCommandException:** Thrown when the requested command is not recognized by the WebDriver server.
- **Example:** When an invalid or unknown command is sent to the WebDriver.

- **NoSuchCookieException:** Thrown when trying to access a cookie that doesn't exist.
- **Example:** Attempting to retrieve or delete a cookie that is not set in the browser.

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- **InsecureCertificateException:** Thrown when navigating to a site with an insecure SSL certificate.
- **Example:** This happens when WebDriver is unable to verify the SSL certificate of a website.

- **UnexpectedTagNameException:** Thrown when a WebElement is not of the expected tag type.
- **Example:** Attempting to select an option from a dropdown, but the WebElement is not a select tag.

- **InvalidCookieDomainException:** Thrown when trying to set a cookie on a different domain than the current URL.
- **Example:** Trying to add a cookie for a domain that doesn't match the current website's domain.

- **ScreenshotException:** Thrown when WebDriver fails to capture a screenshot.
- **Example:** This can happen if the browser window is not visible or minimized.

- **ElementNotInteractableException:** Thrown when an element is found but is not in a state that can be interacted with.
- **Example:** Trying to click a button that is disabled or off-screen.

- **UnsupportedCommandException:** Thrown when the WebDriver command is not supported by the browser.
- **Example:** Attempting to use a command that is not implemented by the current browser driver.

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- **RemoteDriverServerException:** Thrown when an error occurs on the remote WebDriver server.
- **Example:** This happens when using Selenium Grid or remote WebDriver and the server encounters an issue.

- **InvalidSessionIdException:** Thrown when the session ID is invalid or the session has expired.
- **Example:** This happens if you try to interact with a session after it has been terminated.

- **UnsupportedOperationException:** Thrown when an operation is not supported.
- **Example:** Attempting to perform an unsupported operation on a particular WebElement or browser.

- **NoSuchContextException:** Thrown when the context to be switched to is not available.
- **Example:** When trying to switch between different application contexts in mobile automation (Appium).

- **InvalidSelectorException:** Thrown when a selector is invalid or unsupported.
- **Example:** Using an incorrect CSS or XPath selector.

- **ElementClickInterceptedException:** Thrown when an element click command could not be completed as the click is intercepted by another element.
- **Example:** Trying to click on an element but another element like an advertisement or modal is covering it.

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- **ErrorHandler.UnknownServerException:** Thrown when the server responds with an error that WebDriver doesn't know how to handle.
 - **Example:** Encountering an unhandled error from the browser or WebDriver server.

 - **InvalidArgumentException:** Thrown when an argument sent to a command is invalid.
 - **Example:** Passing invalid parameters to a WebDriver method, such as a negative timeout value.
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